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REFORMULATED GASOLINE

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Reformulated Gasoline, Serial No. 1...

HEARING
BEFORE THE
SUBCOMMITTEE ON OVERSIGHT AND
INVESTIGATIONS
OF THE
COMMITTEE ON
ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES
ONE HUNDRED THIRD CONGRESS
SECOND SESSION

—
JUNE 22, 1994
—

Serial No. 103-155

Printed for the use of the Committee on Energy and Commerce



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CONTENTS

	Page
Testimony of:	
Bliley, Hon Thomas J., Jr., a Representative in Congress from the State of Virginia	391
Hastert, Hon. J. Dennis, a Representative in Congress from the State of Illinois	380
Katzen, Sally, Administrator, Office of Information and Regulatory Affairs, Office of Management and Budget	41
Nichols, Mary, Assistant Administrator, Office of Air and Radiation, Environmental Protection Agency	76
Shapiro, Ira S., General Counsel, Office of the United States Trade Representative	64
Synar, Hon. Mike, a Representative in Congress from the State of Oklahoma	38
Tierney, Susan F., Assistant Secretary for Policy, Planning and Program Evaluation, Department of Energy	50
Watson, Alexander F., Assistant Secretary for Inter-American Affairs, Department of State	47
Material submitted for the record by:	
Oversight and Investigations Subcommittee: Appendix	404

REFORMULATED GASOLINE

WEDNESDAY, JUNE 22, 1994

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:08 a.m., in room 2123, Rayburn House Office Building, Hon. John D. Dingell (Chairman) presiding.

Mr. DINGELL. The subcommittee will come to order.

Today's hearing is a continuation of the subcommittee's examination of actions by the Environmental Protection Agency, the States, regulated entities, and others concerning the timely implementation of the Clean Air Act in a fair and effective manner and in accordance with the law as enacted. The primary focus of this hearing will be on the reformulated gasoline, RFG, rule required by the 1990 amendment to the Clean Air Act.

The statutory deadline for the rule was November 1991. The EPA proposed a rule in July 1991 and at the same time engaged in regulatory negotiations with a wide range of interests which resulted in an agreement in principle in August 1991. Thereafter, a supplementary rule was proposed in April 1992 and a second one was issued in February 1993. Because of the delay, a deadline suit was initiated by Chairman Waxman and others in February 1993. The EPA was under a court order to finalize the rule by September 15, 1993. But the EPA missed that deadline and the court extended again the statutory date to December 15, 1993. Subcommittee members expressed concern about these ongoing delays to Administrator Carol Browner in the subcommittee's October 29, 1993 hearing entitled "Oversight of Clean Air Act Implementation," Serial No. 103-97.

The basic rule was finalized in December. However, it was not published in the Federal Register until February. Since then, the EPA has proposed two changes regarding foreign refiners and ethanol that are not yet final. Also, the EPA has reportedly failed to provide all the necessary guidance, interpretations, clarifications and corrections to the basic rule. The hearing today is not about the proposed rules, but about the process leading up to and after the publication.

The subcommittee knows this has not been an easy rulemaking. But it is also very difficult to understand why after more than 3 years the EPA still needs to republish the rule in order to make corrections, clarifications, and interpretations, and issue guidance to an industry that must be in full compliance with the law in just

a few months. The industry, the interests of consumers, the interests of the economy in general and interested users of fuel are all in jeopardy. As of New Year's Day, 1995, the law requires that reformulated gasoline be used in nine nonattainment areas as well as in several opt-in States. And it prohibits dumping of conventional gasoline used elsewhere.

The subcommittee is concerned that we could have a serious national or regional gasoline shortage if this deadline is not met by the suppliers and distributors of gasoline. The Chair wants EPA to hear that very clearly.

If there is a shortage, we want the record to indicate that we have explained this and have warned EPA of that strong probability.

However, it is interesting to note that suppliers are going to be expected in a very doubtful way to comply. They are going to have to do so under conditions where EPA does not at a minimum provide all the rules, guidance and interpretations in a timely fashion. Even after a 3-year lead time for a rule, diesel fuel supply problems and price spikes occurred last October and EPA had to exercise prosecutorial discretion in the case of a number of violations. The RFG rule is much more pervasive.

As part of the Venezuelan matter, I note at this time that when the State Department sought information about foreign suppliers of gasoline, it went to the Central Intelligence Agency for a consultant's report rather than to DOE or EPA. That is neither easy to explain nor is it reassuring. The subcommittee wants to hear from the Energy Department and EPA about what each is doing to monitor compliance to anticipate problems and to avoid supply disruptions. Now, there is small reason to be satisfied that either Agency has a good handle on the matter. The latest pending rule changes further complicate the situation.

I have been a supporter of the use of ethanol. But according to a June 21 staff memorandum, that without objection will be put in the record at the appropriate point, President Bush's 1992 ethanol proposal was apparently legally deficient. It violated the agreement reached in the regulatory negotiation. It was not environmentally neutral. It was burdensome, it was complex and it increased mobile source volatile organic compounds, VOC emissions by 6 percent relative to the adjusted 1990 baseline.

The question here is how could such a proposal as this be helpful to ethanol? Indeed, how could it be in the public interest? The latest 30 percent mandate is said to suffer from some of the same problems. We seek to learn if that is so.

In the case of foreign refiner, the results of the staff's review of various documents has caused me to question whether the State Department is functioning here as part of the executive branch of the United States Government or a lobbying arm of foreign countries or foreign refiners and suppliers. EPA appears to have set forth good and sound environmental reasons consistent with the environmental policy as set forth in the statutes, particularly the clean air statute for not allowing a refinery owned by Venezuela or any other foreign nation to establish its own baseline for reformulated gasoline export to the United States for distribution by CITGO to the Northeastern United States.

The Venezuelan gasoline is high in sulfur and olefins. It creates oxides of nitrogen, NO_x, which can exacerbate ozone, but EPA apparently contends that the rule is sound because of a volume cap urged by the State Department to counter environmental concerns. It is not clear how the law tolerates caps or other devices as a mechanism to meet environmental concerns.

Now, it is clear that EPA has no jurisdiction over foreign refiners such as those from Saudi Arabia, the United Kingdom, the Netherlands, Canada, and Venezuela except through importers like CITGO to verify and access the needed data to ensure compliance with the act. Yet the State Department jumped when Venezuela raised the cry of GATT violation, apparently supported Venezuela against the EPA, apparently encouraged the Venezuelans to trigger a GATT panel, and generally urged concessions to Venezuela without ever seeking a bilateral and enforceable agreement with Venezuela rather than a rule.

It is also clear that they did so without adequate consultation with either EPA or DOE or sought to gather the facts as they should have done in connection with that kind of matter.

In exchange, Venezuela did not withdraw its GATT challenge. Instead Venezuela continues to hold it over the EPA should a rule favoring foreign refiners not be adopted by August 22, 1994.

It is not EPA's function to knuckle under to Venezuela nor is it the function of EPA to knuckle under to the State Department carrying water on behalf of Venezuela. The issue here is the enforcement of the laws of the United States as they are written by the Congress, whether agencies of government like that or not.

The issue of enforcement of any rule in foreign countries still does not appear to be resolved, except at more cost to the U.S. taxpayer and at risk to the gasoline supplies of the driving public of the United States.

We want to learn more about this matter and the use of GATT challenges—here and in the case of corporate average fuel economy or CAFE—to further the economic interests of foreign countries and to panic the United States to act in a fashion inconsistent with its laws which treat all persons equally.

I am also concerned that the GATT process is secret, that the September 1993 GATT submission of the Commission of the European Communities in the CAFE case is still labeled confidential, and that the committee has not only had general difficulty in procuring documents from the executive branch, but that we have not been able to see the government's response to the commission's charges which are aimed at benefiting foreign firms like Mercedes, BMW, Volvo and Audi with their less efficient luxury vehicles.

Finally, the committee is going to examine again EPA's resources, the transport of air pollution and a number of other implementation matters. We continue to remain concerned about the inadequacy of EPA's control or ability to control its consultants who seem still to have an excessive amount of authority and influence and sway in the conduct of the business of that Agency and a thoroughly inadequate supervision by that Agency.

I want to thank the witnesses for appearing here before us today. And I look forward to the testimony.

The Chair, without objection, will put in the record the subcommittee's correspondence and related materials as statements by interested parties.

[The correspondence and related materials follow.]

ONE HUNDRED THIRD CONGRESS

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U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, DC 20515-6116

June 21, 1994

M E M O R A N D U M

TO: Members of the Subcommittee on Oversight and Investigations

FROM: Subcommittee Staff

SUBJECT: Hearing on Implementation of the Clean Air Act Amendments of 1990

Introduction

On Wednesday, June 22, 1994, the Subcommittee on Oversight and Investigations will continue its examination of efforts by the Environmental Protection Agency (EPA), other federal agencies, and others to implement the Clean Air Act (CAA) on a timely basis and in accordance with the Act as amended in 1990. The last hearing was October 29, 1993. The emphasis of this hearing will be implementation of the reformulated gasoline (RFG) requirement by January 1, 1995 without supply shortages, economic disruption, or unexpected price increases or spikes. This includes the decisions of the EPA to initiate new rule changes regarding RFG and oxygenates through a purported ethanol mandate and foreign refiner baselines. Other CAA issues to be covered are: EPA funding and full-time equivalent (FTE) resources; transportation conformity requirements regarding nitrogen oxides (NOx); employee trip reduction requirements; and pollution transport issues. We hope to address initially the matters relating to the rules for RFG as they apply to foreign refiners.

The witnesses will be a panel consisting of the following officials:

- Ms. Mary Nichols, Assistant Administrator for Air and Radiation, EPA
- Mr. Ira Shapiro, General Counsel, Office of the United States Trade Representative
- Mr. Alexander F. Watson, Assistant Secretary for Inter-American Affairs, Department of State

- 2 -

- Ms. Sally Katzen, Administrator, Office of Information and Regulatory Affairs, Office of Management and Budget
- Ms. Susan F. Tierney, Assistant Secretary for Policy, Planning, and Program Evaluation

Summary

- The Clean Air Act requires that RFG be available in many areas of the U.S. on New Years Day 1995. Because of a long delay in issuing the RFG rule, the refiners, pipelines, and others had about one year to comply.
- Failure to comply can mean shortages or price spikes, or both.
- EPA has promised by July 1, clarifications, corrections, interpretations, and guidance to the industry.
- The EPA has proposed two new rules that, if adopted, will affect efforts to comply with the RFG rule. Both are pending.
- The foreign refiners rule results from pressures by Venezuela with the support of the State Department to threaten GATT action against the U.S., even though the EPA believed that assuring compliance with the Act by a foreign refiner was problematic at best.
- The Bush ethanol proposal was abandoned by the EPA because it had serious legal problems and was not environmentally neutral. The EPA's new proposal establishing an ethanol mandate could suffer the same problems.

Background

Section 211(k) of the CAA requires the greatest reduction in emissions of ozone forming volatile organic compounds (VOCs) achievable through the reformulation of conventional gasoline. The regulation establishes requirements for RFG in gasoline fueled vehicles in the following nine nonattainment areas and in opt-in areas. They are:

Cities required to use RFG:

New York, including Northern N.J. and Long Island
Los Angeles

Chicago, including Gary, Indiana
Houston
Philadelphia, including Trenton, N.J. and Wilmington, Del.
San Diego
Milwaukee
Baltimore
Hartford

Cities/States Opting to use RFG:

Portland, Maine
Nashua/Manchester, New Hampshire
Boston and all of Massachusetts
Providence and all of Rhode Island
Albany and Buffalo, New York
Southern New Jersey
Greater Pittsburgh area
Suburban Maryland
Northern Virginia
Richmond and Tidewater, Virginia
Roanoke, Virginia
Louisville, Kentucky
Dallas- Fort Worth, Texas

The Act requires that EPA finalize the regulation one year after enactment of the 1990 amendments to the CAA and that after January 1, 1995 the following are violations:

"(A) the sale or dispensing by any person of conventional gasoline to ultimate consumers in any covered area.

"(B) The sale or dispensing by any refiner, blender, importer, or marketer of conventional gasoline for resale in any covered area, without (i) segregating such gasoline from reformulated gasoline, and (ii) clearly marking such conventional gasoline as 'conventional gasoline, not for sale to ultimate consumer in a covered area.'"

In 1991 the EPA issued a proposed rule and conducted a regulatory negotiation (Reg. Neg.). A Reg. Neg. agreement was reached in principal in August 1991 and the first supplementary proposed rule was issued in April 1992. In October 1992, former President Bush announced that a one pound Reid Vapor Pressure (RVP) waiver would effectively apply to RFG blended with ethanol in up to 30% of the total market in northern cities. A similar change would be made for southern cities that opt-in to the program. Increased emissions that would occur due to the increased volatility associated with ethanol would be offset by

requiring the remainder of gasoline to meet more stringent RVP standards. Former Administrator Reilly signed another supplemental proposal including the Bush changes, among other things, in the days before President Clinton's inauguration. It was published by Administrator Browner in February 1993.

Pursuant to a deadline suit by Chairman Waxman and others, a September 1993 final publication date was extended until December 15, 1993. On that date the final rule was announced absent the ethanol requirement, but it was not published in the *Federal Register* until February 16, 1994. Also announced was a new ethanol proposal which was issued on December 27, 1993 and is still pending. It will help create a market for ethanol by setting a 30% minimum for renewable fuel under the new RFG program. On April 21, 1994 a proposed rule on foreign refiner baselines was published and is still pending.

The final RFG rule includes anti-dumping provisions to ensure that components of gasoline removed during the RFG process are not "dumped" into the conventional gas sold to areas of the U.S. where RFG is not required. EPA documents say that EPA expects about 40% of U.S. gasoline will be RFG, with the rest of the conventional gas subject to anti-dumping.

The "1990 baseline" is the refiner's, blender's or importer's 1990 annual average for various gasoline parameters. It is relevant in 1995 and thereafter to certify RFG and to measure compliance with anti-dumping. It is used to certify compliance with the VOC and toxic reductions for refiners and importers using a "Simple Model" in 1995, 1996, and 1997. The model uses a limited number of parameters to predict motor vehicle emissions. Under it, refiners and importers of RFG for sulfur, olefins, and T90 cannot exceed its 1990 baseline (T90 is a gasoline measure describing its distillation curve at 90 degrees F.)

The rule requires domestic refiners to develop their 1990 baseline using one of three methods.

Method 1: Requires use of 1990 finished gasoline property data (for U.S. gasoline).

Method 2: Requires use of 1990 gasoline blendstock data to relate to the 1990 finished gasoline production.

Method 3: Requires use of either blendstock or finished gasoline data for any year(s) subsequent to a 1990 (until sufficient data is accumulated) to define the finished gasoline properties for that period, and relate it back to 1990 finished gasoline prop-

erties via modeling based on refining differences between the two periods.

Method of last Resort: Default to statutory baseline as provided in the statute.

The EPA expects that few domestic refiners can use Method 1 for all relevant gasoline parameters and will be forced to use Methods 2 or 3 which establish the quality of the gasoline for the refinery on average.

Importers will have to use Method 1. They default to the statutory baseline if adequate records are not available to develop a 1990 baseline based on Method 1. An exception applies to importers that are also refiners. An importer/refiner that imported more than 75% of its 1990 gasoline to the United States in 1990 is treated like a domestic refiner, and may use Methods 2 and 3 before defaulting to the statutory baseline. EPA believes this applies only to importers of gasoline produced at certain Canadian refiners.

Foreign refiners are not subject to the proposed RFG and anti-dumping requirements, hence they do not develop 1990 baselines. Their product is regulated through the baseline established for importers.

Uncertainty Created by the EPA in Meeting Deadline

Congress in enacting section 211(k) gave the regulated industry over three years to comply with a final rule. The EPA's delay in finalizing the rule now gives the industry less than one year. In fact, because of requirements of the final rule, the RFG must be in the tanks by December 1, 1994. Further, a recent article regarding Colonial pipeline shows that for many refiners the practical deadline may be September 1994.

Last year, despite a three year lead time, there were price spikes and regional shortages of diesel fuel nationally and in California under EPA's and California's diesel rule. The RFG rule is far more complicated.

Further, since the rule was promulgated, there have been a number of industry requests for guidelines and interpretations and the EPA said in a recent letter to the American Petroleum Institute that it plans to issue a "Direct Final Rulemaking (DFRM) as the most appropriate means" to make corrections and clarifications. However, no DFRM has been issued.

The baselines were required to be filed with the EPA on June 1, 1994. The EPA has not indicated what it plans to do with them to ensure acceptance by the EPA. Delay creates uncertainty.

The ethanol and refiner rules could add problems in meeting the deadline.

Questions

1. Section 211(k) of the Act authorizes the EPA Administrator, on her own motion or petition by anyone, to, by rule, extend the January 1, 1995 effective date of the RFG rule in Marginal, Moderate, Serious, or Severe nonattainment areas for additional year (with possible extensions) if she determines, in consultation with the DOE, that "there is insufficient domestic capacity to produce gasoline." What are the DOE and EPA doing to monitor efforts, particularly in the distribution system, to ensure full compliance without disruption, shortages, or price spikes nationally or regionally? Are the DOE and EPA satisfied that such problems will not occur? Are there serious concerns about the distribution system?
2. When are decisions on the pending rule changes expected?
3. When will the EPA issue its Direct Final Rulemaking?
4. Has the EPA accepted the refiner baselines filed on June 1 as in compliance or is the EPA reviewing them and possibly going to require changes? What effect will any changes or the timing of them have on meeting the deadline?
5. DOE tables re: U.S. imports of gasoline for 1989-92 show a dozen countries, including Venezuela, importing finished gasoline. In 1993, the initial finished imported gasoline was 247 TBD or about 3.3% of U.S. consumption. Most are spot purchases. Do the DOE and the EPA know if they will continue to import RFG and conventional gasoline? If not, what is the impact nationally or regionally of their failing to do so?
6. According to State Department documents, that agency asked the Central Intelligence Agency to obtain an independent analysis from an oil consulting firm in Houston, called Purvin and Gertz. The firm believes that few foreign refiners were investing the large sums necessary to product U.S. market-specific RFG. Report-

edly, those representing independent dealers have reached the same conclusion. Did State and the CIA share this report with the DOE and the EPA and do those agencies agree with it?

7. Also, in the case of the diesel rule, the EPA decided to exercise prosecutorial discretion regarding enforcement. Will the EPA follow the same approach for RFG?

Refiner Baseline and GATT Challenge

As noted, the final RFG rule did not establish a baseline for foreign refiners. The Venezuelan firm of Petroleos de Venezuela, S.A. (PDVSA) is wholly owned by Venezuela and imports some of its finished gasoline to the U.S. Some of the PDVSA gasoline is sold under CITGO brand.

PDVSA was not a party to the Reg. Neg. although CITGO participated and CITGO is a member of the National Petroleum Association which signed the Reg. Neg. agreement. PDVSA participated in the rulemaking process and the Government of Venezuela (GCV) has had numerous meetings and telephone calls with EPA officials and other in the Government. (See attached EPA letter of May 12, 1994 to Chairman Dingell).

In an August 17, 1992 letter to the EPA, PDVSA's law firm contended that EPA's 1992 supplemental proposal was inconsistent with Article III of the General Agreement on Tariffs and Trade (GATT) and that the exception in Article XX of GATT does not apply. The firm said:

*** under the supplemental proposal published in April 1992 a foreign refiner is not given the opportunity to establish its own 1990 baseline to certify the gasoline and blendstocks it exports to the U.S. as reformulated or conventional. In short, foreign refineries are excluded from the regulatory scheme, and their ability to export gasoline and blendstocks to the U.S. will be wholly dependent on the importer's ability to meet the statutory baseline.

*

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It is clear from Article XX that no general exception will apply and that no measure inconsistent with the GATT will be justified by any exception under Article XX if there is arbitrary or unjustifiable discrimination between countries where the same conditions prevail or if the measure is a disguised restriction on international trade. In addition, once again,

as far as Article XX(b) and Article XX(d) are concerned, it is the responsibility of the party invoking either of those exceptions to demonstrate that the measure is truly necessary. The concept of whether a measure is necessary is understood to mean that there must be no alternative measure available that could reasonably be employed and that is not inconsistent with other provisions of the GATT.

The firm contended that under the Standards Code, it is contemplated within the GATT "that certification of one country will be fully acceptable to another country, so long as verification occurs." The firm concluded that the proposed rules "disregard this principle in its entirety by not affording foreign refineries the opportunity to certify their gasoline exported" to the U.S.

There is no indication from a review of EPA documents that the EPA ever formally responded to these contentions. A "Draft" memorandum, dated November 6, 1992, by an attorney in the EPA's General Counsel's Office which is marked "privileged and confidential" by the EPA specifically addresses the GATT claim and concludes that "treatment of foreign refiners proposed in the regulations is necessary to ensure that the public health benefits sought by Congress in enacting the clean fuels provisions of the Act are accomplished."

The memorandum does not address the verification issue. However, a January 5, 1993 EPA memorandum states that the lawyers for PDVSA argued "that EPA's oversight and enforcement audits could be guaranteed through diplomatic instruments" and that Mr. Edmund Bendetti, Minister/Counselor for Petroleum Affairs at the Venezuelan Embassy in D.C. said "that such instruments, in Venezuela's case, could be accomplished in short order." There is no indication that such diplomatic instruments with the GOV have ever been discussed or executed. Moreover, the documents fail to discuss whether all countries now exporting gasoline to the U.S. would agree to also execute such instruments. Also, it is unclear whether the proposed rule applies to any foreign refiner other than PDVSA.

The draft 1992 memorandum points out that notwithstanding PDVSA's "good intentions," the U.S. "lacks authority to compel foreign refiners to submit to verifying audits." The memorandum states that "EPA's past attempts to subject foreign corporations to EPA audits have been rebuffed."

"Many foreign refiners are nationalized operations which could significantly interfere with U.S. efforts to verify baseline representations. EPA has no author-

ity to conduct an inspection of a foreign refiner's records, to take samples for testing, or an effective means to seek sanctions for violations of the certification process. Accordingly, an ad hoc baseline certification standard for foreign refiners would be impossible to administer."

The Subcommittee received two memoranda from domestic oil interests which Chairman Dingell referenced in his letter about this hearing. They disagree with PDVSA's contentions regarding GATT. It should be noted that the Sun and Mobil Oil Company oppose the PDVSA claims and are CITGO's competitors.

The State Department has provided the Subcommittee with documents that either are classified as Secret or Confidential. (Such classified information has not been incorporated into this memorandum.) The EPA documents show that in August 1993, EPA's Deputy Administrator Sussman met with the Venezuelan Oil Minister. There is a GOV claim that the EPA agreed to PDVSA's own baseline for an amount no greater than its conventional gasoline exports to the U.S. in 1990. Any RFG above that would have to meet the average baseline. They contend that the GOV also agreed not to export conventional gasoline to the U.S. in the 1995-97 period. The GOV reportedly agreed to assume the burden of substantiating its technical data and not to challenge the rule in the GATT.

State contends that later the American Petroleum Institute, backed by Sun and Mobil, vigorously and successfully lobbied the EPA to drop the draft agreement with the GOV contending that lax foreign environmental standards give non-U.S. refiners a cost advantage. It also contends that the API enlisted environmental groups and regional air administrators who feared that PDVSA's gas higher olefin content would harm air quality. On the other side of the matter, the Society of Independent Gasoline Marketers of America (which is represented by the same law firm that represents PDVSA) and Citizen Action urged EPA to allow foreign refiners to establish their own baseline saying the increase in gasoline supply would increase competition and decrease retail gasoline prices.

In regard to the environmental issue, an EPA document from "Mary" (presumably Ms. Mary Smith) to "Dick" (presumably to Mr. Dick Wilson) states:

PDVSA olefins vs. others: The olefin level reported by PDVSA in an August submission is 29.8%. I spoke with Mike Sherman, PDVSA's counsel, on Friday, to clarify some of the numbers and he told me that they will soon make a new submission showing the level to be

22%. Apparently, one of the refineries miscalculated and the 22% is the correct number. Moreover, he said that because of the recipe they will use to make RFG, the 1995 level will be 18%. All these numbers far exceed the 9.2% CAA baseline number.

AA has the MVMA data on line for calendar year 1987 through 1991. In 1990, the average olefin level was 9.276%, the maximum was 29.9% and the minimum level was .4%. Looking at 1987 to 1991 altogether, 29.8% is at the 99+ percentile, 22% is at the 98+ percentile and 18 is at the 95+ percentile. Not very good news regardless of the olefin level PDVSA uses.

A March 24, 1994 letter to the State Department from the President and Chief Executive Officer of CITGO states:

I should point out that the average 1990 gasoline baseline so often referred to is not one number, but nine individual gasoline parameter averages. Therefore, all domestic gasolines will be higher or lower on some of these parameters depending on the particular refinery. While it is true that PDVSA gasoline is higher in olefins and sulfur than average 1990 domestically refined gasoline parameters, other parameters, particularly air toxics like benzene and aromatics, are lower than average U.S. baseline parameters. Some domestically produced gasoline will also be higher in olefins and sulfur than the average baseline, and indeed be very similar to Venezuelan gasoline. The agreement EPA and PDVSA have reached should assure that PDVSA gasoline will be as clean as most domestically refined gasoline, and thus should not detrimentally affect U.S. air quality problems.

As already noted, not all of PDVSA's gasoline is exported to the U.S. It cannot be said that the quality of PDVSA's gasoline production for the U.S. is established by determining what the Venezuelan refineries do on average for 100% of their production. Thus, this comparison by CITGO appears to be misleading.

Finally, an EPA memorandum of March 16 includes a document marked by the EPA as "Confidential - Federal Agency Use Only Not for Outside Distribution." It states:

The quality of Venezuela's 1990 gasoline that was imported into the U.S. was "dirtier" than 1990 U.S. average gasoline, so that RFG produced to this baseline would result in adverse air quality impacts relative to U.S. average gasoline. Venezuela's 1990 gasoline had

644 ppm sulfur and 22% olefins, as compared to 1990 U.S. averages for these parameters of 338 ppm and 10.6%, respectively. In consequence, RFG produced to Venezuela's 1990 baseline would have as much as 13.9% greater NOx emissions than U.S. average RFG. NOx emissions are of particular concern in the Northeast U.S. (Venezuela's primary market) because of the key role NOx plays in ozone formation there. Venezuelan gasoline represents 1/2% of gasoline consumption in PADD I (PADD I is comprised of the U.S. east coast, plus Pennsylvania), but Venezuelan gasoline is consumed primarily in the Middle Atlantic-New England areas and, hence, its impact in these areas is more significant.

Although the USTR and State have since April 1993 conveyed GATT concerns to the EPA, there is no analysis by either State or USTR about the facts, the validity of the GATT concerns, or the validity of the EPA contentions that the proposal is consistent with GATT's Article XX. The USTR did make it clear that it would mount a vigorous defense in any GATT proceeding.

On December 6, 1993, the Venezuelan Embassy sought a December 10 meeting of two Venezuelan officials with the Under Secretary of State for Economic Affairs, Ms. Joan Spero, to explain the position of the GOV, saying the EPA proposed rule "would limit foreign supplies, mainly from Venezuela, of environmentally sound reformulated gasoline in the United States market." (Prior to this, on December 3, 1993, the Energy Minister, Mr. Alerio Parra, met with Bowman Cutter who was reported to be receptive to Parra's case.) In a December 10 letter to Ms. Spero, Mr. Parra thanked her for the meeting and said:

As far as verification is concerned, we are willing to discuss any proposal with EPA to guarantee that the emission levels of VOCs, Nitrogen Oxide (NOx), and Air Toxics, will conform with EPA regulations.

On December 9, 1993 Ambassador Kantor met with Administrator Browner and despite USTR staff urgings to the contrary withdrew USTR's opposition to the proposed EPA rule.

On December 14, a meeting in Mr. Bowman Cutter's office and chaired by him resulted in agreement to issue the proposed rule, but to continue discussion with the GOV. On December 16, the EPA issued a press release which did not mention the GOV or the foreign refiners issue. A December 15, 1993 memorandum from Mr. Alexander F. Watson states:

The Department of State has weighed in heavily with EPA, however, on behalf of Venezuela. EPA has

- 12 -

assured us it will be willing to continue talking to you on the basis of your most recent offers in an effort to arrive at a solution that meets environmental standards and addresses your specific concerns.

On December 20, the EPA issued a statement on the use of individual baselines by foreign refiners.

On January 11, 1994, the GOV initiated a two track approach of requesting formal consultations under Article XXII of the GATT and meeting with the EPA on the technical level. A formal letter was presented to the USTR on January 14 which started a consultation period. The first consultation took place on February 11, 1994.

On March 8, 1994 the GOV put a GATT panel request on the agenda for the March 23 GATT Council meeting in Geneva. The GOV reportedly agreed to drop the request if agreement in principle was reached prior to March 23.

As a result, a meeting was held at the National Economic Council. The Summary of the meeting provided to us by the EPA is as follows:

Summary of NEC meeting on PDVSA

I. Major players at meeting

- OMB - Sally Katzen, chaired meeting for Bo Cutter
- State - Joan Spero
- USTR - Charlene Barshefsky
- EPA - Mary Nichols

Others from EPA, DOE, State, USTR, NEC and the NSC were present.

II. Decision - Go with option 2 on attached briefing paper with conditions.

A. Option 2 in summary: EPA will change the RFG final rule issued last December to provide for the use of verifiable individual baselines by foreign refiners in RFG only and limited by their 1990 volume. Foreign refiners will have to use the statutory baseline for RFG volume in excess of 1990 and for all conventional gasoline.

B. Conditions on selection of option 2 (as laid out by Sally Katzen):

1. EPA lawyers will consult with USTR and State lawyers to ensure that we cannot adopt option 2 without a rule change. (note to CB: a new rule is clearly needed).

2. The US ambassador will require the Venezuelans to withdraw their pending GATT panel request and not publically announce the EPA change in position until the politics of this (Hill, oil and others) can be worked in US. (note to CB: the US ambassador is scheduled to meet with the Venezuelans at 5 pm, the 15th).

3. EPA will expedite the rulemaking to make this change and an NPRM will be signed by the Administrator by April 21.

4. After the US ambassador talks to the Venezuelans, the Hill will be worked as to why we are doing this. (note to CB: We will be saying that USTR had made it clear that we will lose the GATT challenge resulting if we do settle with the Venezuelans. This will result in a rule change that will allow individual foreign baseline use for all imported RFG and conventional gasoline. For PDVSA gasoline, this means more NOx in the Northeast.)

5. There will be an outreach to oil lead by DOE with the assistance of State and USTR. EPA is to stay out of this process.

6. Venezuela will get no enforcement breaks in the revised rule, i.e., enforcement, monitoring and documentation must be equivalent to the domestics.

Sally also made it clear that there is to be no press leaks until we have worked this issue with the various constituency groups.

An EPA attachment to its March 16 memorandum includes a Summary of a March 14 decision meeting which clearly shows that the State Department and the GOV were successful (see attachment).

The results of the March 14 meeting were conveyed on March 15 to the GOV by the U.S. Ambassador who said it was the final U.S. offer and that it was what the GOV offered in December. On March 19, the GOV accepted the offer on RFG, but the GOV wanted to use its own baseline, with limits, for conventional gasoline exports. The U.S. ambassador made it clear that the U.S. would not agree. On March 22, the GOV accepted the U.S. proposal, but required a final rule within five months from March 22 before the GOV would withdraw its request for a GATT panel. However, the GOV did not withdraw the GATT case. It merely suspended it and reserved the right to request a panel at the end of five months.

In his June 13, 1994 letter to the agencies testifying on the panel, Chairman Dingell said:

The documents show that early this year the DOS and the USTR used the GOV challenge under GATT to leverage the EPA to adopt the compromise. This action appears to set a precedent that the Subcommittee wants to address, taking into account the enclosed March 15, 1994 memoranda by representatives of the oil industry, the present ability of the U.S. under GATT to block GATT actions, the issue of retaliation, the changes in the Uruguay Round to GATT, the pending CAFE challenge by the European Union (see *Washington Post* article of June 10, 1994), the overall threat to U.S. environmental laws, and the issues of equity for our domestic refiners.

In a March 15, 1994 letter to State, USTR, and EPA, Chairman Dingell and Representative Marjorie Margolies-Mezvinsky cited the cable and said:

It appears that the State Department and the EPA have entered into an agreement with Venezuela that cannot be changed, even slightly, regardless of what is said by the public as part of the rulemaking. That makes a mockery of the rulemaking process. The decision has been made and Venezuela has imposed a timetable. We question the legality of that action under the Clean Air Act and the Administrative Procedures Act.

In an April 11, 1994 reply, Administrator Browner said "Let me assure you at the outset that no final decision has been made

regarding any amendments to the reformulated gasoline rule" and in an April 21, 1994 letter, she said:

As with all rulemakings, we will fully consider all comments and information received before determining whether to issue a final rule and the content of any final rule. As I am sure you are well aware, in no way does a Notice of Proposed Rulemaking guarantee that I will ultimately decide to either sign a final rule at the conclusion of the rulemaking process or that a final rule would be identical to that which was proposed. The fairness and integrity of EPA's rulemaking process has been among my highest priorities as the Administrator of EPA, and we will not vary from those high standards.

Chairman Dingell's letter states:

The Subcommittee appreciates EPA's April 11, 1994 assurance that "no final decision has been made regarding any amendments to reformulated gasoline rule" in response to our concerns that the U.S. commitments to Venezuela developed at Ms. Katzen's meeting and set forth in a DOS cable are not consistent with the Administrative Procedures Act (APA). However, if the EPA does not adopt the proposal, will this be construed as the U.S. breaking its word to the GOV and will the GOV reinstate its GATT challenge with the possible consequences that the Administrator feared in her remarks to the White House? It seems to me that suggests that the APA is being misused because of this threat. The EPA will have no alternative, particularly since the DOS and the USTR will continue to leverage EPA to finalize the proposal.

Questions

1. Is the EPA's current contention that the NOx increase from Venezuela's gasoline will not be great based on a volume cap and does that apply to all foreign refiners, other than Venezuela?
2. Is the new rulemaking enforceable in Venezuela and other foreign countries? Who will pay audit costs? Have State and EPA discussed a bilateral accord with Venezuela rather than rely on a rule?

Ethanol Proposals

Just prior to the inauguration of President Clinton, in a January 5, 1993 memorandum, an EPA lawyer questioned the wisdom of rushing to publish the second supplemental proposed rulemaking (SNPRM). He noted that EPA's Office of Air and Radiation (OAR) wanted it "out of the Agency...", presumably to make good on the President's ethanol initiative and to fast track the rest of the package. It is not at all clear who seeks this other than senior OAR officials. For example, the White House and OMB certainly did not embrace the ethanol deal and agreed with it out of political necessity near the end of a troubled presidential campaign." He identified "several legal deficiencies with this package, a number of which could be fatal if not changed in the final rule." In the case of the ethanol provisions, he listed the following:

- "- lack of justification for the ethanol deal.
- "- unlawful delegation of rulemaking power by imposing the ethanol deal on southern opt-in areas upon a governor's request.
- "- failure to consider commingling and other issues in developing a program that is 'environmentally neutral', as requested by the President."

This same EPA attorney, Mr. John Hannon, in a February 11, 1993 memorandum to the General Counsel marked "Privileged and Confidential" elaborated on the "legal issues in the supplemental proposal signed by former Administrator Reilly" as follows:

"Justification for the incentive Program

- "The proposal contains no more than the rudiments of a factual and policy justification. The preamble itself contains a few paragraphs paraphrasing President Bush's October 1992 announcement, reciting certain allegations concerning the benefits derived from ethanol use. The record support for these claims is almost non-existent. In addition to a clearly inadequate factual justification, there is also no discussion of a conceptual framework for taking into consideration the various statutory factors such as energy requirements.

"OAR understood OGC's concern that this lack of a justification would be a fatal defect to finalizing this proposal, and understood the need to supplement the proposal later if necessary to support a final rule. There are real questions whether such a justification could be prepared, as little if any work has

been done to date and initial investigation of the issues does not appear terribly helpful or ethanol.

- "While a missing factual justification would in certain cases be curable, there is real concern that the ethanol proposal exceeds EPA's authority even with a clear justification. There is a significant risk that a court would see these provisions as improperly elevating national energy and other policies into central emphasis of the program, displacing the statute's primary focus on emissions reductions. The preamble to the SNPRM attempts to avoid this by casting the provisions as necessary to remove barriers to full market participation by ethanol."

"Environmental Neutrality

- "The SNPRM claims that the ethanol provisions are environmentally neutral when compared to the proposal agreed upon in regulatory negotiations - the tighter standards for non-ethanol blends should offset the increased emissions from the ethanol blends. However, the ethanol provisions fail to account for emission increases from the commingling of ethanol blends gasoline with non-ethanol blends. Since the volatility of gasoline blended with ethanol is not linear with the amount of ethanol, commingling or mixing of ethanol blends with non-ethanol blends results in additional emission increases over what would occur without commingling. This mixing can occur, for example in the underground storage tanks at the retail level or in motor vehicle gasoline tanks.

"EPA arguably would have discretion to exclude commingling emissions from its performance standards, however this would be inconsistent with the agency's emphasis to date on regulating actual in-use emissions over the life of covered vehicles. The proposal invites comment on the commingling issue, e.g. on the amount of commingling, the emissions impact, and possible regulatory approaches.

EPA briefing documents show that in June, July, and October 1993 that the Bush proposal violated spirit Reg. Neg., created "substantial legal problems," and was "not environmentally neutral." Indeed, a July 9, 1993 briefing memorandum for the EPA Administrator states (pp. 15-17) as follows:

Bush Compromise Proposal

Announcement on October 1, 1992

Neither a "net" waiver nor inclusion of reactivity

**Allowed 30% of RFG to have ethanol with higher RVP, but
RVP increase made up by other 70% (lower RVP)**

Various other incentives

Unrestricted early use of the complex model

Incentive also applied to ETBE

Support for ETBE tax break

Concerns With Ethanol Proposal

Violates Spirit of Reg Neg and may jeopardize future Reg Negs

Substantial Legal Problems:

To justify legally need to show that ethanol's energy and other benefits are substantial enough to override environmental impact

Can't do - no significant energy benefits, not more cost effective

Even if ethanol had clear cost and energy benefits, it would be a clear legal stretch to turn an environmental regulation into an economic subsidy/energy regulation (vs tax credits, energy requirements, etc.)

Justification in proposal almost non-existent

Providing justification now without reproposing violates notice and comment reqts

Significantly increases the risk of litigation on not only this, but many other elements of the RFG program

Concerns with Ethanol Proposal

Not Environmentally Neutral:

Bush proposal supposedly environmentally neutral, but ignored certain significant impacts

Commingling

Distillation effects on evap other than RVP

Unrestricted early use of the complex model

30% market share for ethanol (at matched RVP) and unrestricted early use increase gasoline vehicle related VOC emissions by approx. 10%

Potential for temporal peaks in ethanol use could result in larger emission increases under worst-case ozone conditions

States would be required to make up the loss in other more burdensome and costly ways

States are already having difficulty getting the necessary reductions

The critical issue for the hearing is how, and to what extent, does the December 1993 proposal address these EPA concerns that were applicable to the Bush proposal. Does the December proposal overcome these legal, environmental, and other problems. EPA has reopened the final rule by virtue of the ethanol mandate proposal. What is the impact of this late change to supplies of RFG? What logistics problems will be encountered if ethanol must be blended in RFG? Has EPA analyzed the capability of the distribution network to accommodate the ethanol mandate? Will disruptions occur?

In a June 20, 1994 letter to the Subcommittee, the Energy Department released its analysis of the new proposal. The following was included in the DOE letter:

Proposed EPA Rule
Notes for Sue Tierney on the Ethanol Mandate

On December 15, 1993, EPA announced a proposed modification to the final reformulated gasoline regulations (also announced on December 15).

This proposed rule would require that 30% of the oxygen required in reformulated gasoline be provided from renewable sources (ethanol is currently the only renewable oxygenate in the market).

In summer months, when volatile gasoline emissions are controlled, the renewable oxygenate must be used in the form of an ether (ETBE).

Averaging (over the year) and credits and trading are allowed, meaning that more ethanol could be used in the winter or in the midwest, to offset summer requirements or in locations where ethanol is less available.

EPA argues that this mandate will reduce U.S. oil use and provide economic benefits (the Clean Air Act allows EPA to account for the energy and economic impacts of reformulated gasoline in issuing its regulations).

Our initial analysis indicates that under the most likely scenario, U.S. oil use and CO₂ emissions are likely to increase as a result of the proposed mandate. We are looking into a number of scenarios (assumptions) including ones which would cause oil use to decrease as a result of this proposal.

EPA says that this mandate could increase ethanol production by as much as 60%. This assumes substantial opt-in to the reformulated gasoline program beyond the basic nine-city program and that all of the ethanol used to meet the reformulated gasoline requirements is provided from new production facilities.

The increase in ethanol production could be substantially less if the ethanol that is currently used as a gasoline extender is shifted to reformulated gasoline markets. This is likely if the market price of ethanol increases and causes its use as a gasoline extender to be unprofitable.

If ethanol production is not significantly increased as a result of this mandate, the primary beneficiary will be Archer Daniels Midland (ADM) since their ethanol profits would increase and significant new competition would not occur.

If ethanol production does significantly increase, ADM would still benefit, but greater gains would go to other food processors (e.g., Cargill) and corn farmers.

Confidentiality Concerns

In preparation for the hearing, the Subcommittee has received many documents and this memorandum is based on a review of those documents and other matters. In regard to some documents, Chairman Dingell said:

I note that the USTR has identified five documents as "confidential", the DOS has identified some documents as "Secret" and many more as "confidential," and the EPA has asked that several broad categories of documents be "preliminarily treated as confidential by the Committee."

The reasons for such treatment of so many agency documents are not readily apparent. Some documents were apparently marked confidential when written. Some of the documents provided by EPA and DOS under the confidential category have also been provided by USTR with no such restriction, such as various drafts of EPA's option paper. The DOS documents include attachments, such as a Citizen Action letter to the EPA, and a letter to Ms. Spero from a Venezuelan Minister thanking her for a meeting on the issue. The EPA material includes various drafts of options, including one that shows options other than the one adopted by EPA were considered and talking points for environmentalists. It also includes results of telephone conversations with the law firm representing the Venezuelan refinery and summaries of meetings with the Venezuelans, which presumably should be in the EPA docket.

The Subcommittee cannot agree to such blanket requests regarding these documents. The Subcommittee has honored such requests when it is clearly shown that there is a legitimate justification for confidentiality of a particular document or portion thereof, but the Subcommittee does not recognize blanket requests.

In a June 17, 1994 response, the State Department states:

Your letter also raises concerns over the classification of documents among those provided to the Committee by the Department. These documents were classified based on a contemporaneous judgment that disclosure of information in the documents would have harmed the national security, including the foreign relations of the United States. In no case were documents classified in order to prevent or delay the release of information that does not require protection

in the interest of maintaining vital national security interests.

In an effort to respond as quickly as possible to your initial document request, we did not undertake at the time the declassification review required to determine whether these documents continue to contain classified information. The reasons for originally classifying documents were varied. By way of example, some of the documents in question contained information concerning internal assessments of our vulnerabilities in the face of a potential trade dispute. Others contained information provided to us by foreign government officials with an expectation of confidentiality. As stated in a recent meeting with your staff, the Department stands ready to discuss with Members or cleared staff the classification of any particular document of interest to the Committee.

We recognize the possibility that with the passage of time, not all of the documents labelled as classified continue to require classification. In response to your letter, we have initiated a declassification review of all the classified documents provided to the Committee. We anticipate that this review will be completed expeditiously. In the interim, the classified information you have received must be protected by applying standards at least as stringent as E.O. 12356 on the handling of classified information.

The EPA has provided ethanol documents and asserted that they are "Confidential and Privileged." Other EPA documents are under discussion because of a possible claim by the White House of Executive Privilege.

Other Issues

A. Conformity

In issuing regulations under section 176(c) of the CAA concerning transportation projects, the EPA required a demonstration of NOx reductions in ozone nonattainment areas. The controversial provision is not required by the Act and it was not in the proposed rule. On June 8, 1994, the EPA Administrator approved a notice of a "General preamble for future proposed rulemaking" which states:

Clarification of EPA policy for areas with monitoring data which demonstrates attainment is particularly important because many areas already

have such data and appear to qualify for exemption from the conformity NOx requirements.

In order to avoid repetition, this General Preamble describes guidance on NOx exemptions with respect to the transportation conformity rule. However, this guidance for transportation conformity is intended to also apply with respect to general conformity.

This General Preamble explains EPA's policy generally for future notice-and-comment rulemakings taking action on requests for NOx exemptions for specific areas. It contains EPA's preliminary interpretations of relevant provisions of the Clean Air Act and the conformity rules. The interpretations contained herein are not binding as a matter of law until final rulemaking action is taken on each specific area. Opportunity for public comment on NOx exemption determinations made by EPA will be provided separately for each area during these individual rulemakings. (Underlining supplied.)

It is unclear how this provision and section 182(f) will resolve the concerns of the states about this provision.

B. Transport Pollution

In his June 13, 1994 letter to the EPA about the hearing, Chairman Dingell noted that findings of the Lake Michigan Ozone Control Program showed that some Moderate Ozone nonattainment areas in Wisconsin and Michigan contribute little emissions to the region, but they are the recipient of ozone produced by emissions from upwind Severe area in Illinois, Indiana, and Wisconsin which have later attainment dates and more time to achieve attainment. A similar problem exists in Massachusetts and elsewhere. The EPA is examining the development of a flexible policy to avoid the possibility of these Moderate areas being penalized under the "bump-up" provisions of the Act for pollution they cannot control.

Mr. DINGELL. The Chair will now recognize members for opening statements. In accordance with the rule, commencing with the distinguished gentlewoman from Pennsylvania, Ms. Margolies-Mezvinsky.

Ms. MARGOLIES-MEZVINSKY. I would like to thank the Chair for continuing these hearings, for having this one today, and I look forward to listening to the panel and asking questions.

Thank you.

[The documents submitted by Ms. Margolies-Mezvinsky follow:]

The Role of ETBE in Reformulated Gasoline

The proposed Renewable Oxygenate Requirement (ROR) is not the only way to assure a role for ethanol in reformulated gasoline (RFG).

Ethanol, used in its alcohol form, has two properties that are obstacles to full acceptance as an oxygenate in the refining and gasoline industry. The first obstacle is ethanol's affinity to mix with water which impedes successful integration into the gasoline distribution system. The second obstacle is that ethanol, in alcohol form, increases the vapor pressure of gasoline which increases ozone-forming hydrocarbon emissions.

Ethyl tertiary butyl ether (ETBE) is a renewable oxygenate that utilizes ethanol in ether form. It has similar properties to gasoline and is therefore more compatible with the gasoline distribution system. ETBE does not increase the vapor pressure of gasoline; in fact, it has a lower blending vapor pressure than methyl tertiary butyl ether (MTBE).

ETBE provides a higher value for domestic ethanol and would be a superior way to increase ethanol's role in the fuels market because it is compatible with gasoline manufacturing and distribution and because, unlike ethanol, it can be used year round.

ETBE has been limited to small commercial quantities because of significant tax barriers that prevent it from being competitive with other oxygenates.

In order to make ETBE price competitive with other oxygenates, the current alcohol fuel tax credit must be available at the point of first mixing of ethanol by the ETBE producer. This ETBE producer credit is revenue neutral under any demand scenario when compared to a like amount of ethanol.

The Internal Revenue Service (IRS) has already ruled that the ethanol portion of the ETBE qualifies for the tax credit currently granted for ethanol use. However, the credit was designed for splash blending technology where ethanol is added at a terminal just before delivery of splash blended gasoline to a retail outlet. It does not recognize the difficulties in capturing the tax credit where ethanol is used to produce ETBE.

The tax law was intended to facilitate the use of ethanol, in any form, as a transportation fuel. This could be accomplished if the IRS would develop a procedure for permitting all users, including ETBE manufacturers, to utilize the income tax credit granted for ethanol. The Congressional objective is met so long as ethanol, in some form, is competitive as a transportation fuel or additive.

It appears there is sufficient flexibility in current tax law to allow the income tax credit to be claimed by the producer of ETBE, but the IRS has not made that interpretation.

If the IRS could be encouraged to make that interpretation, ethanol, in ETBE form, would begin to compete in the major gasoline markets previously inaccessible to it and would be used in RFG without costly and unproductive mandates.

Environmental Benefits of ETBE

Reformulated Gasoline

Reformulated Gasoline (RFG) will result in substantially lower emissions of volatile organic compounds (VOCs) and toxics from motor vehicles. To satisfy the oxygen requirement, ethyl tertiary butyl ether (ETBE) has advantages relative to methyl tertiary butyl ether (MTBE) and ethanol that allow refiners to meet emission reduction requirements for reformulated gasoline with less crude oil processing and possibly lower capital costs for refinery modifications. ETBE advantages include lower blending vapor pressure, higher octane contribution and greater volume dilution.

RFG regulations require reductions in summer-time gasoline vapor pressure (RVP) to reduce emissions of ozone-forming VOCs. Oxygenates that have low blending vapor pressure allow refiners to maximize crude oil yield by both maximizing the use of light hydrocarbons such as butane (including butane from non-petroleum sources), and minimizing processing. This tends to reduce refinery emissions and minimize the use of crude oil. ETBE has a 4 psi blending vapor pressure compared to 8 psi for MTBE and 18 psi for ethanol.

ETBE provides a greater volume of oxygenate (12.7 vol%) to meet the 2.0 wt% oxygen requirement for RFG than either MTBE (11 vol%) or ethanol (5.7 vol%). This means there can be a greater dilution of total aromatics and benzene with ETBE. Therefore, refiners may choose to do less processing in the refinery to meet RFG aromatic and benzene limits. Less processing reduces refinery emissions. The greater volume also provides more dilution of other emission increasing components such as sulfur, olefins and higher boiling hydrocarbons. This also results in less processing being required to meet standards.

ETBE has a higher octane than the other oxygenates. The higher octane combined with the higher volume provides a higher octane contribution which also allows refiners to reduce refinery processing, reduce aromatics production and, therefore, reduce refinery emissions.

In addition, the use of ETBE directionally results in lower greenhouse gas emissions relative to blending MTBE or ethanol in RFG.

Oxygenated Gasoline for Carbon Monoxide Non-Attainment Areas

Carbon monoxide (CO) non-attainment areas only require the use of oxygenates. VOC and toxic reductions are not required. However, if a refiner were to use ETBE instead of ethanol to meet the oxygenate requirement, many of the emission reductions that are required in ozone non-attainment areas would occur in CO non-attainment areas. For example, the gasoline would result in VOC toxics, sulfur and NOx emission reductions that would not occur with the ethanol/gasoline mixture. In comparison to ethanol blending, ETBE does not raise the gasoline's RVP which reduces the effectiveness of the Oxy Fuel Programs. The RVP increases from ethanol blending offsets a significant portion of the CO reduction benefit associated with the oxygen.

ENERGY POLICY BENEFITS OF ETBE

Using ETBE instead of MTBE for RFG will not only increase the use of domestic, alternative energy used in transportation fuels, but will also provide a lower emission gasoline that will be more acceptable to environmentalists, particularly when compared to ethanol blending.

World scale ether production units make high octane ethers by chemically combining both butanes and alcohols from non-petroleum, alternative energy sources. The resulting ether product is both oxygenated and compatible with the existing gasoline distribution infrastructure and vehicle fleets. The alcohol used to make the ether can be either methanol derived from natural gas in making MTBE or ethanol fermented from corn starch in making ETBE. However, even new ethanol production indirectly draws much of its energy from natural gas via fertilizers, farming and ethanol process energy.

Also, ETBE's lower volatility allows even more butane blending in gasoline without VOC increases to further replace gasoline volumes derived from imported petroleum. The net result is that blending ETBE instead of MTBE for oxygen in Reformulated Gasoline (RFG) will deliver 29% more non-petroleum energy into gasoline and also provide 25% more octane which can be used to further reduce refinery energy consumption for octane processing.

A comparison between the energy and material balances for the two ether operations also show that more BTU's will be utilized from domestic Natural Gas Producers with ETBE than with MTBE production. The domestic natural gas advantage for ETBE is even greater if the methanol for the MTBE is imported or the MTBE itself is imported. ETBE will only be made domestically because of the ethanol incentives necessary to make it competitive for use in U.S. gasoline. Based on projections for U.S. methanol and MTBE capacity, the U.S. will be importing nearly 25% of its total methanol requirements in 1996 which will be equal to about 50% of the methanol consumed for domestic MTBE. Any ethanol used to produce ETBE in these domestic ether operations will likely back out imported methanol instead of domestic methanol production (and the associated domestic natural gas). On the other hand, using ethanol for ether manufacture should increase domestic natural gas consumption in the production of ethanol and the growing of corn as well as increase butane utilization in gasoline. From a natural gas industry perspective, increased butane (a natural gas liquid) utilization becomes more leveraging since it produces about twice the revenues per BTU than natural gas.

June 13, 1994

Mr. DINGELL. The Chair recognizes now the gentleman from California, Mr. Waxman.

Mr. WAXMAN. Thank you, Mr. Chairman.

I want to commend you for holding this hearing. I want to begin also by commending the Environmental Protection Agency for the changes we have seen in the past 18 months in the Agency's efforts to carry out the Clean Air Act. In the first 2 years after the act's passage, many of the most important regulatory actions mandated by the 1990 Clean Air Act amendments were simply not carried out.

In many cases, this was due to intervention from a hostile White House. More than 60 different Clean Air Act rulemaking deadlines were missed. In the end, to break free of the many rules tied up in the White House review, I brought a legal action in the DC Court of Appeals. This suit succeeded in securing a court-ordered schedule for promulgation of a long list of rules including the rule providing for the reformulation of gasoline.

Over the past 1½ years it has been a very different story. Proposed regulations have not languished at the White House or the OMB. EPA has broken the regulatory gridlock meeting the deadlines in the court-ordered schedule and producing a long list of important rules to improve the quality of the Nation's air.

So I want to commend EPA, this morning's witness Mary Nichols and all of the air program staff for their hard work in getting the air program back on track.

But that is not to say that all is well with EPA's efforts to carry out the Clean Air Act. If that were the case, I don't know that we would be having today's hearing.

Unfortunately, in one important area, EPA's actions and those of other agencies are nothing to be proud of. I am, of course, referring to the recent proposal to modify the reformulated gasoline rule to carve out special provisions for the Venezuela government oil company.

As a matter of process, this proposal raises numerous serious concerns. These include interference from other agencies, and an apparent commitment to a foreign government that raises serious questions regarding both consultation with Congress and the notice and comment process the Agency is required by law to undertake.

As a matter of clean air policy, this proposal is equally troubling. EPA's own data indicate that the exemption for Venezuelan oil will lead to more nitrogen oxides pollution in the Northeast, a major cause of ozone smog.

Perhaps most importantly, the proposed revision for Venezuela oil speaks volumes about the administration's commitment to defend our domestic health and environmental protection measures against challenges from other nations under GATT. In that regard, the signal this retreat sends to the international community is extremely unfortunate. I look forward to going into these and other matters in detail in the course of today's hearings.

And I yield back the balance of my time.

Mr. DINGELL. The time of the gentleman has expired. The Chair recognizes now the gentleman from Oregon, Mr. Wyden.

Mr. WYDEN. Thank you very much, Mr. Chairman and Mr. Chairman, let me commend you for your ongoing efforts with re-

spect to oversight in the Clean Air Act. I think this is a particularly important session because it seems to me that the rulemaking process is never especially elegant but this rulemaking process on reformulated gasoline seems to me to be truly incoherent.

It seems that last December EPA issued a so-called final RFG rule that discriminated against foreign imports and was challenged before the GATT by Venezuela. Then after apparent intercession by the State Department and perhaps a secret deal with Venezuela, the EPA rewrote the rule using procedures that do not seem to meet the standards of the Administrative Procedures Act.

Now, the Environmental Protection Agency is in effect caught between a rock and a hard place. The domestic refiners are unhappy with the change and our trading partners believe that the rule still discriminates against imports.

I am especially troubled about how the Environmental Protection Agency's initial rulemaking could produce a rule that the rest of the administration felt was clearly GATT illegal. It seems to me that EPA's rulemaking process has something of a blind spot with respect to our international trade obligations and this is certainly an area that we ought to be inquiring into further.

Finally, I would like to also know whether the State Department reached an agreement with Venezuela and what the revised rule would say before the public comment period, because if they did, this would make a mockery of the Administrative Procedures Act.

If there was no secret deal, we ought to inquire what the administration's reason is for the Environmental Protection Agency's flip-flop and why Venezuela has not pushed the GATT challenge even though their representatives have told my staff they feel the revised rule is still GATT illegal. If the rule is still GATT illegal, the United States remains vulnerable to a challenge from another country.

I would conclude by saying that we heard during the NAFTA debate how important it was to defend our commitment to existing environmental laws and regulations from trade challenges. So we are going to have to ensure an administrative process that is fair, that is effective, that is not flawed, as this one has been.

And I commend you, and, Mr. Chairman, I would also like to commend the gentlewoman from Pennsylvania, Ms. Margolies-Mezvinsky who, in my view, has also done outstanding work over the last few months and has raised many of these same issues.

I yield back.

[The prepared statement of Hon. Ron Wyden follows:]

PREPARED STATEMENT OF HON. RON WYDEN, A REPRESENTATIVE IN CONGRESS FROM
THE STATE OF OREGON

Mr. Chairman: The Administration's rulemaking process on reformulated gasoline seems to be incoherent.

It seems that last December, EPA issued a "final" RFG rule that discriminated against foreign imports and was challenged before the GATT by Venezuela. Then, after apparent intercession by the State Department, and perhaps a secret deal with Venezuela, EPA rewrote the rule, using procedures that do not seem to meet the standards of the Administrative Procedures Act. The EPA now seems to be caught between a rock and a hard place—domestic refiners are unhappy with the change and foreigners believe the rule still discriminates against imports.

Mr. Chairman, EPA's rulemaking process is supposed to be science-based, transparent and not arbitrary, but the RFG example raises serious questions about what is going on down at EPA. Last week, Reps. Waxman, Margolies-Mezvinsky and I

sent a letter to President Clinton, cosigned by 53 Members of the House and 16 Senators, asking for information on this process. We have not yet received a satisfactory response, but perhaps the witnesses today can shed some more light on things.

I want to know whether what went wrong with the RFG rule is an aberration of a symptom of a more systemic problem.

I want to know how EPA's initial rulemaking process could produce a rule that the rest of the Administration felt was clearly GATT-illegal—what was wrong with the process that those concerns weren't aired earlier? Does the rule-making process have a blind spot with respect to our international-trade obligations or is there another explanation for the issuance of a rule that seems to have violated one of the basic pillars of GATT?

I want to know whether the State Department reached an agreement with Venezuela on what the revised rule would say *before* the public comment period because if they did, that would make a mockery of the Administrative Procedures Act. If there was no secret deal, I want to know what the Administration's reason is for this EPA flip-flop and why Venezuela has not pushed a GATT challenge even though their representatives have told my staff that they feel the revised rule is still GATT-illegal. If the rule is still GATT-illegal, the US remains vulnerable to a challenge from another country.

I want to know whether EPA can assure the committee that its revised rule is science-based and able to withstand future GATT challenges. If the answer is no, EPA should seriously consider pulling the revised rule and either leaving the existing rule in place or starting all over.

Finally, I want to know what the Administration feels is the message they are sending other countries about our commitment to defend existing environmental laws and regulations from trade challenges. Will the US rulemaking process produce GATT-proof regulations or is the process so flawed that there may be a number of other regulations vulnerable to challenge? Will the sorry spectacle around the RFG rule embolden other countries to challenge US environmental laws and regulations?

Mr. Chairman, I commend you for holding this hearing and look forward to examining these and other issues associated with the RFG program.

Mr. DINGELL. The time of the gentleman has expired.

The Chair recognizes now the gentleman from Ohio, Mr. Brown.

Mr. BROWN. Thank you, Mr. Chairman.

I want to thank you for holding this hearing today. Once again you and your staff have been extremely helpful. For the past 30 years, this country has made the conscious and costly decision to protect our environment and our citizens by enacting effective and responsive laws.

We have weighed the price of action against the cost of inaction, and we have rightly chosen to attack our problems. The Clean Water Act, the Clean Air Act, the public health laws and countless other acts have made our standards the envy and blueprint for the world.

We should all be proud of that and should remain committed to continuing that legacy so that our children and our grandchildren can live in an environment where they can run outside without fear of polluted air, drink water without the fear of contamination, and live off the land without fear of toxins.

But I fear that this dream is in jeopardy today from a wily adversary: The unchecked mantra of all trade agreements are good agreements. In short, I am concerned that U.S. sovereignty is in jeopardy due to the structure of the GATT. Whether we are talking about environmental laws, health and safety laws, labor laws, or even tax laws, I am concerned that we are now faced with lowering our standards to yield to trade threats in a kind of race to the bottom.

Hard-fought progress may be lost as we sink to a lowest common denominator standard rather than challenging our competition to rise to our levels of environmental protection, our levels of worker

safety standards, our levels of public health laws. For years, we have enacted national health and environmental laws, spending billions of dollars to meet compliance standards in developing a working partnership among businesses and workers and communities. Now our laws and standards may be lowered because of economic threats by international competitors.

These laws are not the obstacles to free trade that our competitors claim them to be. They were simply a part of doing business intelligently and an essential part of protecting the health and safety of our families and our children, a consensus our society has reached to enhance our quality of life.

We cannot submit to the sad irony of requiring our farmers, our industries, and our families to meet one standard while allowing competitors foreign competitors to meet a lower standard. A level playing field that welcomes into our market anyone who is willing to meet the same laws as we require of ourselves simply makes sense. A religious crusade of free trade fundamentalism does not.

Mr. Chairman, I look forward to talking about these issues, about the general threat to U.S. sovereignty with the panel today. I appreciate the Chairman's time.

Mr. DINGELL. The Chair thanks the gentleman.

The Chair recognizes the gentleman from Texas, Mr. Barton.

Mr. BARTON. Thank you, Mr. Chairman.

It is I think very important that we have this oversight hearing today. I was a member of this committee in 1990 when we passed the Clean Air Act amendments. That was a very difficult piece of legislation to pass because of regional problems and industry tensions.

But one of the key components was that we would try to create a level playing field in this country and in this region, and one of the components of that was in the alternative fuel section where there were tremendous pressures to advantage one particular alternative fuel over another.

We had a very carefully crafted compromise in which the 10 percent oxygen content was a key component of that. I have some of the concerns that have been expressed about the Venezuelan exemption but I also have a serious concern about the 30 percent ethanol requirement for reformulated gasoline.

Based on the record that I have seen, I don't see any scientific validity to that decision. It appears to be a political decision not in the highest tradition of the executive branch and I would hope that we are able to look into that some today.

I come from a region of the country where obviously we grow a lot of corn, but we also produce a lot of natural gas. And the original bill that was passed by this committee did create a level playing field. I don't think the 30 percent ethanol rule when it is not too hot in certain parts of the country makes a lot of sense, and I hope that we are able to look into that.

I would also take certain exceptions with my distinguished friend from California, Mr. Waxman. The Bush administration was not hostile to the environment and the Bush EPA under Mr. Riley, I think, made a very good-faith effort to implement the act as passed.

We had tensions in the Bush administration, the usual administrative/legislative tension which we have today with the Clinton administration. With that, I would yield back the balance of my time.

Mr. DINGELL. The time of the gentleman has expired.

The Chair recognizes now the gentleman from Michigan, Mr. Upton.

The Chair recognizes the gentleman from California, Mr. Moorhead.

Mr. MOORHEAD. Well thank you, Mr. Chairman.

I commend you for holding this hearing on the administration's implementation of the Clean Air Act amendments. Like you, I am very concerned about the status of the reformulated gasoline rule. The Clean Air Act amendments of 1990 require reformulated gasoline to be available in roughly one third of the United States gasoline markets by January 1, 1995.

Yet there is still a lot of uncertainty among refiners about exactly what must be in reformulated gasoline. This is troubling because if refiners and marketers are not given sufficient lead time to begin the necessary modifications at the refineries, reformulated gasoline will either not be available at all or will be only partially available by January 1, 1995.

Thus, today I have a broad question for the administration witnesses: What will happen on January 1, 1995, if refiners are not given sufficient guidance by the EPA in time to meet the statutory requirement for supplying reformulated gasoline? I would like to know if the administration is making provisions to address this potential problem.

I am sure none of us want to see physical shortages of gasoline or the price spikes that accompany such shortages. I am also concerned about the current requirement that 30 percent of all reformulated gasoline contain ethanol.

The California Air Resources Board has opposed this requirement because it would have adverse fiscal and environmental impacts on California. Not only would reformulated gasoline containing ethanol cost California consumers more than reformulated gasoline without ethanol, but these consumers would receive a lower environmental performance from gasoline containing ethanol.

I do not believe that such a requirement can be justified in light of California's current air quality situation. We need all the help we can get. We don't need another load on our shoulders.

Again, Mr. Chairman, I don't think we can emphasize the importance of this issue enough. If there are physical shortages of gasoline on January 1, 1995 because of the failure of the administration to act in a timely fashion to implement the Clean Air Act requirements, the entire Nation will suffer.

Thank you, Mr. Chairman.

Mr. DINGELL. The time of the gentleman has expired.

The Chair recognizes now the distinguished gentleman from Colorado, Mr. Schaefer.

Mr. SCHAEFER. Thank you, Mr. Chairman. I, too, want to thank you for holding this very timely hearing on the potential powder keg we face in dealing with reformulated gasoline and the relevant rulemaking. As many on this committee will remember, the refor-

mulated gasoline issue was not an easy one to resolve in the Clean Air Act amendments of 1990.

The provision that the Congress ultimately approved is a bold one which requires refiners and marketers to produce and deliver a new product to approximately one-third of the gasoline markets in the United States by a date certain.

If done properly, this provision could help many areas meet the Clean Air Act obligations. If it is done incorrectly, or if deadlines are not met, then consumers could suffer and support for the Clean Air Act could erode dramatically.

Given the challenges that the reformulated gasoline program presents, it is troubling to find out, as the Chairman has already noted, that we are now within 6 months of the deadline for providing reformulated gasoline into the specified markets and refiners and marketers still do not have answers to a number of questions on how the rule will work and how it will be enforced.

If this program does not work and there are supply problems or price spikes, it will be consumers in this country who are going to pay the price and you can be certain we are going to hear about it.

It appears that one of the reasons that EPA has not yet responded to specific questions concerning the reformulated gasoline rule is that the Agency is still working to resolve two outstanding issues: The treatment of foreign importers and whether a mandate for renewable oxygenates is necessary.

I share the Chairman's concern that there are still significant issues unresolved at this late stage of the process. I am anxious to hear how EPA intends to resolve these issues in a timely manner to provide the regulated community with the certainty it needs to comply with the rule.

I want to say that I appreciate that EPA does not have an easy job in implementing the provisions of the Clean Air Act amendments. The closer we get to the goals set out in the statute, the harder it is going to be to actually meet these goals.

As the challenges under the Clean Air Act become more difficult, I think it becomes even more important to rely on the creativity of local and State governments and the flexibility of market-based solutions. As EPA moves forward to implement the Clean Air Act amendments of 1990, I urge them very strongly to rely to an even greater extent on these principles.

Thank you, Mr. Chairman. It is so important we hold this hearing today and try to move ahead toward the date of January 1, 1995.

Mr. DINGELL. The Chair thanks the gentleman.

The Chair wants to observe that the gentleman from Colorado, he and I worked very closely on this matter. I want to express my thanks to him for his cooperation as we have gone forward.

The Chair now rises the distinguished gentleman from Oklahoma who is not a member of the subcommittee but will be recognized for an opening statement.

**STATEMENT OF HON. MIKE SYNAR, A REPRESENTATIVE IN
CONGRESS FROM THE STATE OF OKLAHOMA**

Mr. SYNAR. Thank you, Mr. Chairman. And let me start off by thanking you for allowing me to be here, and express to you my shared concern over the reformulated gasoline rule.

First, I would just note that I have a lot of good friends at Sun Oil Company, so I hope they don't take this personally; and second, given all the previous opening statements, I think I now have a good idea what it means to be "crying in the wilderness."

I am concerned, as some of the other members have expressed, about all aspects of the rule, including the oxygenates provisions. But I want to comment primarily on the question of imported gasoline.

With regard to the imported gasoline issue, there has been a tremendous amount of confusion in much of the press and on the Hill over both the nature of Venezuela's proposal concerning its baseline and the process by which the issue was evaluated and decided by EPA.

Let me make clear from the outset that just as EPA should not confer advantage on one group over another, I am not here to advance imported gasoline over domestic gasoline. Venezuela's national oil company, PDVSA, did not seek special treatment under the rule, it merely sought the same treatment as U.S. refiners. The debate never was, and is still not, about allegedly "dirty" imported gasoline or environmental protection; it is a fight over market share. It is not about EPA flip-flopping in April 1994 and reversing a good decision. It is about EPA flip-flopping in December 1993 and making a sudden and highly questionable decision to reverse the course they had been on with respect to a single standard.

EPA's decision to allow Venezuela's oil company to play by the same rules as domestic refiners and to import gasoline subject to the same standards as domestic gasoline will provide enormous consumer and energy security benefits to the Northeast. I hope that issue is not overlooked today as you discuss this rule.

Again, Mr. Chairman, I thank you for the opportunity to present an opening statement and ask unanimous consent to turn in my full statement.

[The prepared statements of Hon. Mike Synar and Hon. Cardiss Collins follow:]

PREPARED STATEMENT OF HON. MIKE SYNAR, A REPRESENTATIVE IN CONGRESS FROM
THE STATE OF OKLAHOMA

Mr. Chairman, thank you for giving me the opportunity to appear briefly with the Subcommittee regarding EPA's reformulated gasoline rule and the process the Agency employed in arriving at its December 15 decision and its subsequent proposal concerning imported gasoline. While I am concerned with all aspects of the rule, including the oxygenates provisions, I would like to comment today primarily on the question of imported gasoline. I would also note parenthetically that I share your concern that all aspects of the reformulated gasoline rule be as equitable and accurate as possible. That is why I have asked GAO to use this rule as a case study in a report for my Subcommittee on negotiated rulemaking under the Clean Air Act. I am anxious to receive that report and would be happy to share the results with you when we have them.

With regard to the imported gasoline issue, there has been tremendous confusion in much of the press and on the Hill over both the nature of Venezuela's [PDVSA's] proposal concerning its baseline, and the process by which the issue was evaluated and decided by EPA. Oddly, many key features of both have been distorted or ig-

nored. It's as if we had crossed over into the world of Alice's looking-glass where everything is reversed and nothing is what it seems.

Mr. Chairman, let me make clear from the outset: just as EPA should not confer advantage on one group over another, I am not here to advance imported gasoline over domestic gasoline, or to promote one company's product over another's. I am simply here to suggest that information about this issue has been seriously misconstrued, erroneously turning a good old-fashioned fight over market share into a debate over environmental protection and alleged "special" treatment for Venezuela.

Venezuela's national oil company, PDVSA, did *not* seek "special" treatment under the rule, it merely sought the same treatment as U.S. refiners. The debate was never—and still is not—about allegedly "dirty" imported gasoline or environmental protection; it is a fight over market share. It's not about EPA flip-flopping in April 1994 and reversing a good decision; it's about EPA flip-flopping in December 1993, and making a sudden and highly questionable decision to reverse the course they had been on with respect to a single standard.

Some critics of the later decision on imported gasoline have pointed to EPA's seeming reversal after December as evidence of some kind of nefarious influence being exerted over the regulatory process. But such suggestions focus only on half of the story and, as a result, arrive at a skewed interpretation of events.

To have a complete picture of the regulatory process one must look to the events *before* EPA's December 15 decision, not at events between December and April when EPA issued the revised proposal.

On October 29, 1993, Administrator Browner told this Subcommittee that under EPA's reformulated gasoline rules, the agency intended to hold *all* refiners to the same standard. That is all Venezuela had requested, and PDVSA had submitted ample information to the agency to justify EPA's original intention. And yet, in early to mid-December, EPA reversed course and issued regulations containing a double standard that clearly discriminated against PDVSA.

Why the change? In May 12, 1994 testimony before the Senate Committee on Environment and Public Works, EPA Assistant Administrator Nichols stated that late in the process, she had made the decision to have two standards, one for domestic refiners and one for imported gasoline, contrary to the strong recommendations of the EPA technical staff. The agency's technical staff had studied the mass of information supplied by PDVSA over the preceding months and had based their recommendation on that data. Unfortunately, it seems Ms. Nichols' decision was grounded in another consideration—one that was wholly inconsistent with EPA's responsibilities under the Act. At the May 12 hearing, Ms. Nichols stated: "...It seemed to me that in the context of the rule, we were doing enough things that would be seen as being punitive by the American petroleum companies that R was appropriate, that if we had a choice, to lean in the direction of doing something that would favor their competitive position vis-vis the Venezuelans."

Mr. Chairman, I would submit that it is *not* EPA's prerogative under the Clean Air Act to arbitrarily "favor [the] competitive position" of one class of refiners over another. EPA has now come back, quite properly in my view, to correct that mistake.

Proponents of the double standard under the rule have also muddied the waters on the question of the quality of Venezuela's gasoline, by suggesting that PDVSA's gasoline is "dirty" compared to U.S. gasoline primarily because its olefin content is higher than the U.S. average. In my view, this is the most specious argument of all, since it ignores far more important facts about their gasoline and about the parameters covered by the rule.

With regard to the parameters, during the period 1995-1997, reformulated gasolines will be judged by the so-called "simple model." Under its terms, the *only* parameters for regulation are Reid Vapor Pressure, oxygenates, benzene and aromatics. Other parameters of reformulated gasoline—such as sulfur, T-90 and olefins—are *not* included in the simple model; instead, each U.S. refiner will be held to its own 1990 baseline levels for these parameters. Under EPA's revised regulation, qualified foreign refiners, such as PDVSA, would use the *same* standards as U.S. refiners, with their own baselines for sulfur, T-90 and olefins.

In other words, qualified foreign refiners will not be advantaged or disadvantaged, they simply will be treated the same as domestic refiners.

With regard to the allegation of some that PDVSA gasoline is problematic specifically because of its olefin content, it's important to focus on some additional facts which opponents of EPA's later decision have ignored, thus greatly misconstruing the real picture.

According to a recent comparison done by *Octane Week*, when Venezuelan regular-grade gasoline is compared with regular-grade U.S. gasoline, in fact PDVSA's product falls within the ranges of quality of regular-grade U.S. gasolines. Of course, it

is worth noting that some domestic gasoline also exceeds the U.S. average with respect to olefins and other components, so this is pretty much a case of the pot calling the kettle black.

Importantly, PDVSA gasoline not only meets the regulatory requirements in all respects, it is actually better than the U.S. average when it comes to aromatics and benzene—the air toxic components of reformulated gasoline. So replacing U.S. product with Venezuelan gasoline of the same grade will not have a negative impact on the environment. I know your hearing will address these questions, and I hope this particular question of environmental impact can be put to rest.

EPA's decision to allow PDVSA to play by the same rules as domestic refiners, and to import gasoline subject to the same standards as domestic gasoline, will provide enormous consumer and energy security benefits to the Northeast, and I hope that issue is not overlooked today.

Finally, I just want to comment about the criticism concerning the involvement of other Executive agencies in this matter. Since EPA's December 15 rule clearly discriminated against PDVSA and presented Venezuela with what I believe was a strong GATT case, it seems to me entirely understandable that the White House, and the U.S. Trade Representative and the State Department took an active interest in this controversy. Indeed, it would have been far more surprising if they had ignored the GATT problems raised by the EPA rule.

Mr. Chairman, there is no one I respect more than you when it comes to investigations. I am confident that when you examine the facts in this case you will agree with me that while the Agency could have handled this problem more effectively from the start, the end result is one that is both fair and equitable for refiners and good for consumers and the environment.

PREPARED STATEMENT OF HON. CARDISS COLLINS, A REPRESENTATIVE IN CONGRESS
FROM THE STATE OF ILLINOIS

Mr. Chairman, I have a strong interest in one of the issues that the Subcommittee is addressing today and I appreciate the opportunity to share my views on this matter at this time.

As you well know, the Clean Air Act Amendments (CAAA) contained various provisions intended to improve air quality in the United States. One of these provisions is the requirement that areas with the worst air pollution, defined as "severe non-attainment areas," implement an Employee Commute Options (ECO) program. The purpose of ECO programs is to reduce the number of work-related trips and the number of miles traveled alone in a car in these regions. Since automobiles are the major cause of ozone pollution in many parts of the U.S., including the Chicago Metropolitan Area, the CAAA seeks to get at the root of the problem by reducing automobile use. Specifically, the program requires employers with 100 or more employees in areas of severe non-attainment to cut the number of single employee trips made in commuting to the office by 25 percent. Northeastern Illinois, including the City of Chicago and other parts of my Congressional District, is required to establish an ECO program that is in place by July 1994.

As a strong advocate of the Clean Air Act and the Clean Air Act Amendments, I am pleased that the City of Chicago is supporting the ECO program and is working to ensure its implementation by the law's deadline. In addition, I am pleased that Chicago supports mandatory participation in this program rather than simply voluntary participation. One of the important aspects of the ECO requirement is that it recognizes that flexibility is needed to enable employers and affected cities to shape an ECO program that is appropriate to local needs. I am confident that northeastern Illinois will establish an ECO plan that is responsive to the needs of affected employers and employees and also seriously seeks to improve the poor air quality of the Chicago Metropolitan Area.

Currently, there are efforts underway to reclassify northeastern Illinois as an area of "serious" non-attainment instead of its current status as an area of "severe" non-attainment. In my view, the reclassification effort could simply lead to extended delays in the implementation of the ECO program and, unfortunately, the health of the residents of northeastern Illinois who are already exposed to high ozone levels cannot wait. Again, I am pleased to join with the City of Chicago in opposing these efforts so that the work of complying with the CAAA and improving the area's air quality can begin.

Mr. Chairman, thank you for holding this important hearing and enabling me to address this issue of importance to many of my constituents.

Mr. DINGELL. The Chair thanks the gentleman for his very helpful opening statement.

The Chair now advises that our first panel is a panel composed of Mr. Alexander F. Watson, Assistant Secretary for Inter-American Affairs, Department of State; Ms. Susan F. Tierney, Assistant Secretary for Policy Planning and Program Evaluation, Department of Energy; Mr. Ira Shapiro, General Counsel, Office of the United States Trade Representative; Ms. Sally Katzen, Administrator, Office of Information and Regulatory Affairs, Office of Management and Budget; and Ms. Mary Nichols, Assistant Administrator for the Office of Air and Radiation, Environmental Protection Agency.

Ladies and gentlemen, the Chair will indicate the order of recognition as the statements are made, but we will start with first, Ms. Katzen; second, Mr. Watson; third, Ms. Tierney; fourth, Mr. Shapiro; and last, Ms. Nichols.

As you well know, ladies and gentlemen of the panel, it is the practice of the committee that all witnesses are to testify under oath.

Do any of you object to testifying under oath this morning?

Very well.

The Chair advises that since you are testifying under oath, it is your right to be advised by counsel.

Do any of you desire to be advised by counsel during your appearance here?

Very well.

Then the Chair advises that since you are testifying under oath, copies of the Rules of the House and the Rules of the Committee, Rules of Subcommittee they are at the witness table before you in the red and blue books to advise you of your rights as you appear here before us.

Ladies and gentlemen, if you have no objection then to testifying under oath, would you each please rise and raise your right hand.

[Witnesses sworn.]

Mr. DINGELL. You may each consider yourself under oath, and we will recognize you for your statement commencing with Ms. Nichols—I'm sorry, Ms. Katzen. My apologies.

TESTIMONY OF SALLY KATZEN, ADMINISTRATOR, OFFICE OF INFORMATION AND REGULATORY AFFAIRS, OFFICE OF MANAGEMENT AND BUDGET; ALEXANDER F. WATSON, ASSISTANT SECRETARY FOR INTER-AMERICAN AFFAIRS, DEPARTMENT OF STATE; SUSAN F. TIERNEY, ASSISTANT SECRETARY FOR POLICY, PLANNING AND PROGRAM EVALUATION, DEPARTMENT OF ENERGY; IRA S. SHAPIRO, GENERAL COUNSEL, OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE; AND MARY NICHOLS, ASSISTANT ADMINISTRATOR, OFFICE OF AIR AND RADIATION, ENVIRONMENTAL PROTECTION AGENCY

Ms. KATZEN. Thank you, Mr. Chairman and members of the subcommittee.

I welcome this opportunity to discuss the promulgation of a rule on reformulated gasoline by the Environmental Protection Agency. My involvement comes from the Executive Order on regulatory

planning and review, Executive Order No. 12866, that was signed by President Clinton on September 30, 1993.

The objectives of this order are to enhance planning and coordination with respect to both new and existing regulations, to reaffirm the primacy of Federal Departments and Agencies in the regulatory decision-making process, to restore the integrity and legitimacy of regulatory review and oversight, and to make the process more accessible and open to the public.

Pursuant to Executive Order 12866, the Administrator of OIRA is responsible for providing meaningful guidance and oversight so that each Department and Agency's regulatory actions are consistent with applicable law and the President's priorities and do not conflict with policies or actions of another Department or Agency.

It is for this reason that one of my tasks is to seek to resolve disagreements or conflicts between or among departments or agencies. The order also contemplates that my office is to be the point of contact for the Executive Office of the President for interacting with persons outside the executive branch on pending rulemaking proceedings.

The order provides that the Administrator of OIRA receive oral communications from persons outside the executive branch regarding the substance of regulatory issues, that I invite representatives from the issuing Agency, to meetings with outside persons, that I forward written communications on regulatory actions to the issuing Agency and that I maintain a public log of contacts with persons outside the executive branch.

To return to the foreign refiners baseline issue in the RFG proceeding, as the Chairman noted, in 1991, 1992, and 1993, EPA promulgated several proposed versions of a rule on compliance with statutory reformulated gasoline standards.

I understand that, as is its normal practice, EPA held a series of meetings during the fall of 1992 and during 1993 to discuss the proposed rule with, among others, representatives of PDVSA, the government of Venezuela, domestic refiners, and officials of other agencies.

I also understand that officials from the State Department, the United States Trade Representative, and other agencies participated in discussions of the RFG issue, including having meetings with representatives of Venezuela and PDVSA.

During the fall of 1993, in connection with my duties under Executive Order 12866, I met with a number of outside parties, including representatives of domestic refiners on the RFG issue.

I also discussed the RFG issue with interested government officials, including members of the White House staff. And on December 13, I met with representatives of PDVSA to discuss the Venezuelan RFG issue.

On December 14, I attended a meeting on the Venezuela RFG issue convened by W. Bowman Cutter, Deputy Assistant to the President for Economic Policy and a member of the staff of the NEC, the National Economic Council.

Mr. Cutter is a principal point of contact in the White House on international economic policy issues.

I understand that on December 6, at the request of the Ambassador from Venezuela, Mr. Cutter had met with the Ambassador

and two other Venezuelan government officials. During that meeting, Venezuela registered its concerns, including potential claims under GATT regarding the RFG issue.

The Venezuelans argued that if EPA were to adopt an RFG rule that would subject foreign and domestic refiners to different baseline treatments, this would discriminate against Venezuela in violation of the GATT.

The December 14 meeting on the RFG issue was attended largely by deputy-level officials. Its purpose was simple—and that was to air the different perspectives—the different views—of the Agencies that were involved, given that the RFG rule under consideration by EPA raised international economic and trade issues of concern to the Department of State and USTR.

While there were, of course, some real time constraints imposed by the impending court deadline for promulgating a final rule—December 15, as the Chairman noted, was the date set by the Court—the meeting was not marked by panic or undue urgency on the part of anyone present. Much of the work had already been done.

EPA reported that it would not be possible to resolve the Venezuelan RFG issue prior to the court-ordered deadline of December 15 for promulgating the final rule. But EPA also reported that it wanted to continue to meet with officials from Venezuela after the final RFG rule was promulgated. It was agreed that the State Department would advise Venezuelan officials that EPA wanted to continue discussions notwithstanding the issuance of a final rule.

Some have raised questions as to why it was the State Department that carried this message. The State Department is normally responsible for communicating messages from the United States Government to foreign officials.

Some have asked why we needed to talk to Venezuela at this time at all. The answer is that—given that there would be a promulgation of a final rule—unless there was advice from the government that EPA wanted to continue to meet with Venezuelan officials, Venezuelan officials might construe the issuance of a final rule as the end of the matter.

Among the issues that EPA wanted to continue to discuss with Venezuelan officials were those relating to the monitoring and enforcement of individual baselines, namely, those issues that could not be resolved but were in the process of being resolved by the December 15 deadline.

On December 15, EPA announced the promulgation of the final RFG rule. At the press conference announcing the rule, an EPA official explained that EPA was still considering the Venezuelan RFG issue and would continue discussions with PDVSA.

On January 14, 1994, the Venezuelan government requested formal consultation on the final RFG rule pursuant to Article XXII of the GATT. Venezuela claimed that the final rule constituted discrimination in violation of GATT because it did not allow foreign refiners to establish individual baselines as domestic refiners were allowed to do under the rule.

I understand that during February and March 1993, officials at EPA, USTR and the State Department continued discussions on the RFG issue with the Venezuelans, including a consultation pursuant to Article XXII of the GATT.

I then chaired an interagency meeting on the RFG issue on March 14, 1994. The purpose of this meeting was for EPA to report on the status of its continued discussions with the Venezuelans and to air the issues of what effect the various steps that EPA might take in response to those discussions might have.

The meeting also provided an opportunity for airing of the issues related to Venezuela's pending GATT challenge. Mr. Cutter had again convened the meeting, but he was unable to attend and asked me to chair the meeting, which I did.

I then convened and chaired two additional follow-up interagency meetings and one interagency telephone conference call on the Venezuelan RFG issue during March and April 1994. These meetings included discussion of informal inquiries from various congressional offices regarding the Venezuelan RFG issue.

On March 23, 1994, EPA announced that agreement had been reached between the United States and Venezuela and as part of that agreement, EPA would propose to amend the portion of its final RFG rule promulgated on December 15 that affects the calculation of foreign refiners baselines and to take public comment on that proposal.

The agreement calls on EPA to issue a proposed rule. It does not require EPA to adopt that rule, if EPA determines after public comment that such a rule would not be warranted.

On April 22, 1994, EPA promulgated the proposed RFG rule on refiners baselines that would revise the December 15, 1993, final rule. In announcing that proposal, EPA stated that it was particularly interested in comments on alternative approaches—alternative regulatory approaches in this area—and comments on all of the underlying factual assumptions, including environmental impacts.

EPA also held a public hearing on the proposed rule on May 23. The 30-day written comment period will expire tomorrow, June 23.

EPA officials have repeatedly stressed that the outcome of the proposal process is open and has not been predetermined. I should add that since April 1994, and consistent with my responsibilities, I have continued to meet with representatives of parties, both foreign and domestic, to continue discussing these issues, and those are all in our public log.

In short, I wish to state that I believe that the RFG rulemaking process—including matters relating to the Venezuelan RFG issue—have been conducted in a manner that is fully consistent with all applicable law, including the APA, and with the Executive Order 12866. The RFG rule under consideration in the fall of 1993 gave rise to important economic, environmental, and international trade concerns, in this case, involving a foreign government and an international trade agreement to which the United States is a party. It was essential that the various interested departments and agencies have an opportunity to air these issues.

I also want to add that the Clinton administration is committed to a strong environmental policy and believes that a strong environmental policy is good economic policy.

We look forward to working with this committee and other Members of Congress to deal constructively with the issues that arise,

as they inevitably will, with the intersection of economic trade and environmental matters.

I would be happy to answer any questions that you may have.
Thank you.

[The prepared statement of Ms. Katzen follows:]

PREPARED STATEMENT OF SALLY KATZEN, ADMINISTRATOR, OFFICE OF INFORMATION AND REGULATORY AFFAIRS, OFFICE OF MANAGEMENT AND BUDGET

I am Sally Katzen, the Administrator of the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget. I welcome the opportunity to discuss the promulgation of a rule on reformulated gasoline by the Environmental Protection Agency.

The Executive Order on Regulatory Planning & Review, E.O. No. 12866 (September 30, 1993), began a program to improve the regulatory review process. The objectives of this Order are to enhance planning and coordination with respect to both new and existing regulations; to reaffirm the primacy of Federal departments and agencies in the regulatory decision-making process; to restore the integrity and legitimacy of regulatory review and oversight; and to make the process more accessible and open to the public. In pursuing these objectives, the regulatory process is to be conducted so as to meet applicable statutory requirements and with due regard to the discretion that has been entrusted to the Federal departments and agencies.

Pursuant to Executive Order No. 12866, the Administrator of OIRA is responsible for providing meaningful guidance and oversight so that each department and agency's regulatory actions are consistent with applicable law and the President's priorities, and do not conflict with the policies or actions of another department or agency. Such guidance and oversight is to be directed to "significant" regulatory actions, defined in the Executive Order as regulatory actions that are likely to result in rules that may (1) have an annual effect on the economy of \$100 million or more or adversely affect the economy in a material way; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Among other things, the Executive Order calls for the Administrator of OIRA to seek to resolve disagreements or conflicts between or among department or agency heads, or between OMB and a department or agency. It is also specifically contemplated that OIRA is to be the Executive Office of the President's point of contact for interacting with persons outside the Executive Branch on pending rulemaking proceedings. The Executive Order provides that the Administrator of OIRA (or a particular designee) shall receive oral communications from outside parties regarding the substance of regulatory actions under OIRA review; that representatives from the issuing agency shall be invited to meetings between OIRA personnel and outside parties; that OIRA shall forward written communications on regulatory actions to the issuing agency; and that OIRA shall maintain a public log of contacts with outside parties.

As the Committee is aware, in 1991, 1992 and 1993, EPA promulgated several proposed versions of a rule on compliance with statutory reformulated gasoline (RFG) standards. I understand that, as is its normal procedure, EPA held a series of meetings during the fall of 1992 and during 1993 to discuss the proposed rule. EPA officials met with, among others, representatives of Petroleos de Venezuela (PDVSA), the government of Venezuela, domestic refiners and officials of other agencies. I also understand that officials of the State Department, the United States Trade Representative and other agencies participated in some of these and other discussions on the RFG issue, including meetings with representatives of Venezuela and PDVSA.

After at least one request for an extension, a federal district court imposed a deadline of December 15, 1993, for EPA to promulgate a final RFG rule. During the fall of 1993, in connection with my duties under Executive Order No. 12866, I met with a number of outside parties, including representatives of domestic refiners, on the RFG issue. I also discussed the RFG issue with interested government officials, including members of the White House staff. On December 13, 1993, I met with representatives of PDVSA to discuss the Venezuela RFG issue.

On December 14, 1993, I attended a meeting on the Venezuela RFG issue convened by W. Bowman Cutter, Deputy Assistant to the President for Economic Policy

and a member of the staff of the National Economic Council. Mr. Cutter is a principal point of contact in the White House on international economic policy issues. I understand that on December 6, 1993, at the request of the Ambassador of Venezuela, Mr. Cutter met with the Ambassador and two other Venezuelan government officials. During this meeting, Venezuela registered its concerns—including potential claims under the General Agreement on Tariffs and Trade (GATT)—regarding the RFG issue. The Venezuelans argued that if EPA were to adopt an RFG rule that would subject foreign and domestic refiners to different baseline standards, this would discriminate against Venezuela in violation of the GATT.

The December 14 meeting on the RFG issue was attended largely by deputy level officials. The NEC—composed of the President, Vice President, Cabinet members and senior White House officials—did not meet as a body of principals at this time, and I understand that the NEC never met as a body of principals to discuss the RFG issue.

The RFG rule under consideration by EPA raised international economic and trade issues of concern to the Department of State and the United States Trade Representative (USTR). Those issues involved a foreign government and a major multilateral treaty to which the United States is a party. The purpose of the December 14 meeting was to allow an airing of issues arising from the different perspectives of the interested agencies. While there were, of course, real time constraints imposed by the impending court-ordered deadline for promulgating a final rule, the meeting was not marked by "panic" or undue urgency on the part of anyone present.

EPA reported that it would not be possible to resolve the Venezuela RFG issue—including questions relating to monitoring and enforcement of individual baselines—prior to the court-ordered deadline of December 15, 1993, for promulgating a final rule. But EPA also reported that it wanted to continue to meet with officials from Venezuela after the final RFG rule was promulgated. It was agreed that the State Department would advise Venezuela officials that EPA wanted to continue discussions notwithstanding the issuance of a final rule.

The State Department is normally responsible for communicating messages from the United States government to foreign officials. It was necessary to advise Venezuelan officials that EPA wanted to continue discussions because without such advice, the Venezuelan officials might construe the issuance of the final rule as the end of the matter. Among the issues that EPA wanted to continue to discuss with Venezuelan officials were those relating to monitoring and enforcement of individual baselines—namely, those issues that could not be resolved by the December 15 deadline.

On December 15, 1993, EPA announced the promulgation of a final RFG rule. At the press conference announcing the rule, an EPA official explained that EPA was still considering the Venezuela RFG issue and would continue discussions with PDVSA.

On January 14, 1994, the Venezuelan government requested formal consultations on the final RFG rule pursuant to Article XXII of the GATT. Venezuela claimed that the final rule constituted discrimination in violation of GATT, because it did not allow foreign refiners to establish individual baselines, as domestic refiners are allowed to do.

I understand that during February and March 1993, officials of EPA, USTR and the State Department continued discussions on the RFG issue with the Venezuelans, including a consultation pursuant to Article XXII of the GATT.

I chaired an interagency meeting on the RFG issue on March 14, 1994. The purpose of this meeting was to allow for a report on the status of EPA's continued discussions with the Venezuelans, and to provide an opportunity for airing issues with respect to steps EPA might take in response to those discussions. The meeting also provided an opportunity for airing of issues related to Venezuela's pending GATT challenge. Mr. Cutter had convened this meeting, but was unable himself to attend.

I convened and chaired two additional follow-up interagency meetings, and one interagency telephone conference call, on the Venezuela RFG issue during March and April of 1994. These meetings included discussion of informal inquiries from Congressional offices regarding the Venezuela RFG issue.

On March 23, 1994, EPA announced that an agreement had been reached between the United States and Venezuela regarding Venezuela's claim that the EPA's reformulated gasoline rules do not provide national treatment for foreign refiners and, hence, violate the GATT. While Venezuela had initially asked that both its reformulated and conventional gasoline be evaluated in the same manner as the gasoline of domestic refiners—permitting use of individual baselines—and, moreover, that no volume restrictions apply, the compromise agreement provided that use of individual baselines by Venezuela would be limited to 1990 volumes of only reformulated gasoline.

The agreement also provided that EPA would propose to amend the portion of its final RFG rule, promulgated on December 15, 1993, that affects the calculation of foreign refiners' baselines, and to take public comment on the proposal. The agreement calls on EPA to issue a proposed rule; it does not require EPA to adopt that rule if EPA determines, after public comment, that such a rule would not be warranted.

On April 22, 1994, EPA promulgated a proposed RFG rule that would revise the final rule of December 15, 1993, in the manner contemplated by the agreement with Venezuela announced on March 23, 1994. In particular, it proposed that foreign refiners seeking to use individual baselines would be required, among other things, (1) to permit gasoline inspections and audits, conducted by independent inspectors and auditors at the foreign refinery, to establish the refinery-of-origin for any imported gasoline that would be subject to an individual foreign refinery baseline; (2) submit to an annual audit by a U.S.-based certified public accountant; and (3) provide any EPA inspector or auditor immediate and complete access to the refiner's facilities for announced and unannounced inspections.

In announcing the proposed rule, EPA stated that it was particularly interested in comments on alternatives and on all factual assumptions underlying the proposal, including environmental impacts. EPA held a public hearing on the proposed rule on May 23, 1994, and the 30-day written comment period will end on June 23, 1994. EPA officials have repeatedly stressed that the outcome of the proposal process is open and has not been predetermined.

Since April 1994, consistent with my responsibilities, I have met with representatives of private parties to discuss the RFG issue and the proposed rule promulgated on March 23.

I believe that the RFG rulemaking process, including matters relating to the Venezuela RFG issue, has been conducted in a manner that is fully consistent with applicable law and Executive Order No. 12866. The RFG rule under consideration in the fall of 1993 gave rise to important economic, environmental, and international trade concerns, in this case involving a foreign government and an international trade agreement to which the United States was a party. It was essential that the various interested departments and agencies have an opportunity to air these issues.

The Clinton Administration is committed to a strong environmental policy, and believes that a strong environmental policy is good economic policy. We look forward to working with this Committee and other Members of Congress to deal constructively with the issues that arise at the intersection of economic, trade and environmental matters.

I would be happy to answer any questions you may have.

Mr. DINGELL. Thank you very much.

The Chair now recognizes Mr. Alexander Watson.

Mr. Watson, you may proceed.

TESTIMONY OF ALEXANDER F. WATSON

Mr. WATSON. Thank you very much, Mr. Chairman, distinguished members of the subcommittee. I am very pleased to have the opportunity to appear before you today to discuss the implementation of the reformulated gasoline requirements with regard to foreign refiners and related matters of the Clean Air Act.

In my comments I will both discuss the Department of State's involvement in this issue and answer the questions addressed to the Department in your letter of June 13, Mr. Chairman. And endeavor to clear up any misapprehensions about the Department's efforts on this issue.

Let me note that the Western Hemisphere has become one of our largest and most dynamic markets. U.S. exports to Latin America and the Caribbean have more than doubled in 6 years, to about \$78 billion in 1993, with the consequential implications for employment in the United States.

We expect U.S. exports to the region to continue to grow impressively in coming years. Promoting U.S. exports will be a major

theme at the summit of the Americas in Miami this December. Thus, it is very important to the success of our economic policy in the hemisphere and the exports by American firms that our domestic actions be consistent with our stated international goals.

The Department of the State first became aware of the RFG issue in late 1992 when the Venezuelan government expressed concern that the EPA's proposed rule for RFG might apply a standard for foreign refiners different from the rule to be established for domestic refiners. The Venezuelan government which owns *Petroleos de Venezuela, PDVSA*, argued that the proposed rule would discriminate against foreign refiners by basing compliance on individual baselines for all U.S. refiners while requiring foreign refiners to meet the U.S. average baseline.

The Venezuelan government also noted that Venezuela has been a reliable supplier of oil and petroleum products to the United States. It refused to participate in the Arab oil embargo of 1973, and increased its production during the Gulf War. Maintaining a diverse, secure and reliable source of oil and petroleum products is a very important U.S. foreign policy and security objective.

The Venezuelan government added that it was already making major investments to comply with the Clean Air Act. It is currently in the process of completing a refinery investment program to service our market and meet our environmental laws.

In 1993, Venezuela awarded a 2-year, \$2.2 billion contract for the upgrade of its refineries to three U.S. firms. M. W. Kellogg, Bechtel, and Foster Wheeler. This contract is promoting high-tech exports providing highly skilled jobs in communities throughout the United States.

As interagency discussions progressed, it became clear that any final rule would have important implications for Venezuela. Thus, experts from a variety of agencies, including the Department of State, reviewed the matter in accordance with the APA and with Executive Order 12866.

The Department became concerned that a regulation that did not apply the same rules to a foreign product as a domestic product, that is to say national treatment, could, absent environmental justification, expose the U.S. to a serious GATT complaint. Moreover, the principle of "national treatment" is a fundamental element of U.S. foreign policy.

The Department frequently cites this principle with foreign governments in support of U.S. businesses in trade and investment abroad. In insisting that our trading partners respect this policy abroad, we argue that nondiscrimination against imports spurs market competition, enhances consumer choice, and provides a country's citizenry access to the greatest amount of goods at the least cost.

These same benefits accrue to the U.S. Consumer when we pursue these policies at home. It is one of the great advantages of an open trading system.

We understand that the committee is concerned about the procedures followed in reaching a decision on the proposed rule. Conversations between EPA and PDVSA were conducted through 1993. The Department and the U.S. Embassy in Caracas performed their

traditional role of receiving the views of the Venezuelan government and communicating those of the administration.

The Department's efforts within the administration have been directed at assuring that our international obligations and objectives in both the environmental and trade areas were given full consideration in the decision-making process and that we arrived at rules which both fulfilled the Clean Air Act requirements and were to the maximum extent possible consistent with our international obligations.

The EPA issued the final rule for RFG on December 15, 1993, in order to meet a court-ordered deadline, but recognized in a December 16 press conference, as Sally Katzen just mentioned, that it had not yet completed its analysis of the Venezuelan government's most recent proposals. The EPA expressed a willingness to continue conversations with the Venezuelans on this subject.

The Venezuelan government responded by communicating its interest in further discussions. In addition, the Venezuelan government began to pursue the matter under the GATT by requesting formal consultations under GATT Article XXII.

There is now a proposed rule which provides an option whereby foreign refiners would be able to use individual baselines under certain circumstances. We support the EPA's April 21 decision to issue a proposed rule for public comment. With the end of the public comment period on June 23, we await the EPA's decision.

With your permission, Mr. Chairman, I would now like to respond very briefly to the four questions in your June 13 letter addressed to the Department of State.

Most of the questions in your letter, sir, are directed at other agencies. I will specifically answer parts or all of questions 4, 5 and 6 which are directed at the Department.

Question No. 4: Mr. Chairman, you asked if the panelists agreed that the final EPA regulation does not preclude importers or foreign refiners working through importers from participating in the U.S. market. The Department of State agrees that the regulation does not directly preclude participation. However, PDVSA, one of the few refiners that have begun to make substantial investments to meet the RFG requirements, would be seriously disadvantaged because some of the parameters of its gasoline currently exceed the U.S. average baseline while other parameters are below the baseline.

If U.S. refiners were subject to the same U.S. average baseline, by definition, a significant proportion would exceed the U.S. average baseline in some parameters and be exposed to the same disadvantages as PDVSA.

The proposed rule would apply equally to all foreign refiners. All foreign refiners have not been consulted. Those that have expressed interest in the proposed rule have discussed the issue with EPA.

Question 5(c): Mr. Chairman, you asked if the proposed rule would allow PDVSA to double its market share, if that would be acceptable from an environmental standpoint and if that would provide PDVSA with a competitive advantage over U.S. firms. Based on what we have been told by the Venezuelan government

by the progress of PDVSA's refinery upgrade, PDVSA will not be able to double its market share by 1995 under the proposed rule.

This is because the proposed rule would allow PDVSA to establish its own individual baseline with a volume cap based on its 1990 exports to the U.S. market. If PDVSA's refinery upgrade progresses to the point where its RFG production exceeds its 1990 exports, something we do not expect, this additional production would have to comply with the U.S. average baseline.

Question 6: Mr. Chairman, you expressed concern that the threat of a GATT complaint appeared to panic Department officials. The Department opposed the establishment of separate standards for domestic and foreign refiners long before the GATT complaint became an issue.

The Department first became aware of this issue in late 1992, as I indicated, when the Venezuelan government expressed its concern about the proposed rule. We first expressed our concerns to EPA in April 1993.

The GATT case did not arise formally until early 1994, well after the final rule was issued in December 1993. As the records show, we asked the Venezuelan government not to file a GATT complaint because we believed it would unnecessarily complicate the dispute.

Finally, Mr. Chairman, in question 6(c): You asked if EPA's failure to adopt the proposed rule would be construed as the U.S. breaking its word to the Venezuelan government and if the Venezuelan government would reinstate its GATT challenge. We understand fully, as the EPA has stated, that the EPA has not made a final decision on this matter or prejudged its outcome.

We also understand that the EPA has not pledged to sign a final rule at the conclusion of its rulemaking process or that a final rule would be identical to the current proposal. Our understanding with the Venezuelan government was to move forward with a proposed rule which if adopted would revise the final rule promulgated on December 15, 1993.

We told the Venezuelan government that this revision would be subject to the EPA's rulemaking process and that there was no guarantee of the outcome. If the propose rule is not adopted, the Venezuelan government is free to resume its GATT case and we anticipate that it would do so.

Mr. Chairman, that concludes the formal part of my prepared remarks. And I hope this testimony and my answers to your specific questions and your committee's examination of the extensive State Department files we have provided to the committee on this issue will serve the purpose of this hearing.

I'll be glad to answer any further questions you or other member of the committee may have.

Mr. DINGELL. The Chair will now recognize Ms. Tierney.

TESTIMONY OF SUSAN F. TIERNEY

Ms. TIERNEY. Thank you, Mr. Chairman, members of the committee. On behalf of the Department of Energy, I am most pleased to be here to discuss various issues surrounding the implementation of EPA's reformulated gasoline program which begins, as you know, January 1, 1995.

The Department of Energy believes that this program is an extremely important component of an overall Clean Air Act strategy for achieving attainment in the air quality standard for ozone and reductions in toxic pollutants. The program will affect essentially all gasoline sold in the United States.

Approximately, one-third of the gasoline will have to be reformulated, starting in 1995, for distribution and sale in the regions with air quality problems, and the other two-thirds of gasoline sold in the United States will be controlled by the anti-dumping regulations which govern conventional gasoline.

Changes in equipment or operating procedures will be required throughout the gasoline production and distribution system. Refineries will have to have the necessary facilities in place to reduce benzene and vapor pressure and produce the needed oxygenates to meet the reformulated gasoline requirements. Additional storage tanks and improved recordkeeping and tracking will be needed throughout the distribution system.

While we don't anticipate disruptions arising from the reformulated gasoline regulations, it is certainly possible, even likely with a program of this complexity and size, that minor start-up problems could occur.

All parts of the government and industry have been and will continue to work together to assure the smoothest possible implementation of this program. For example, it is important for EPA to provide clear and complete guidance to the industry on the details of the implementing rules. The EPA and the Department of Energy have been working together to smooth these transitions.

The Department and its Energy Information Administration will need to gather and publish, as soon as available, data on the production and inventory levels of reformulated gasoline.

As you know, this hearing covers a number of individual subjects related to the reformulated gasoline program, and you have asked the Department of Energy to comment on four issues, which I am prepared to do.

The first issue is related to foreign refiners. The committee has asked for comment on various issues relating to foreign refiners' involvement in the reformulated gasoline program, especially the role played by Petroleos de Venezuela, otherwise known as PDVSA. Foreign refiners play a small but important role in supplying petroleum products to the U.S. market. They supply products in parts of the country where access to domestically produced products may be limited.

These areas would include the upper Midwest and northern New England. They also provide competition in product pricing in those and other markets on the east coast. This area of the country using the greatest amount of imported petroleum products. About 11 percent of the gasoline used in 1993 on the east coast was imported. A fifth of this, or about 2 percent of the total gasoline in those markets, came from Venezuela.

The Department of Energy is satisfied that EPA's announced program concerning new baseline procedures for gasoline importers will neither unfairly limit importers' access to U.S. markets nor give an advantage to foreign suppliers that is not available to U.S. firms. The proposed procedures, if adopted, will allow all refiners

and importers the same opportunity to establish baseline characteristics of their 1990 gasolines, provided that documentation is satisfactory to EPA.

The second issue you asked the Department of Energy to address has to do with challenges under the GATT rules. I defer to my colleagues from the Department of State and the U.S. Trade Representative's Office on those questions.

With regard to the challenge of European auto manufacturers under GATT to the corporate average fuel economy standards, I have provided information on CAFE levels and penalties paid by foreign auto manufacturers, as requested by this committee.

In our view, the CAFE challenge basically revolves around an argument that U.S. domestic manufacturers have a greater opportunity to average their fleet across a wide range of products in determining their corporate average fuel economy level, and that this would constitute an unfair advantage under GATT. We do not agree with this position. Our view is that the CAFE standard provides all manufacturers with essentially the same opportunity. I defer to the witness from the U.S. Trade Representatives Office for further details.

The third area you have asked us to discuss concerns issues relating to the implementation of the reformulated gasoline rules. The Department of Energy staff has been working with responsible offices in the EPA and with members of the refining industry to identify and address possible implementation problems.

Over many, many months, these specific efforts have included technical assistance to EPA in developing its "complex" reformulated gasoline model; cost-effectiveness analysis of alternative year 2000 NO_x reduction standards; identification of current ethanol supply and demand patterns with their implications for necessary ethanol movements; analysis of the implications of switch from JP4 to JP8 for specific refiners, and analysis of the ability to move to refined product to PADD IV in the event of refinery closures.

In addition, more than a year ago, the Department of Energy asked the National Petroleum Council to analyze through a multiyear study a number of issues relating to the proposed reformulated gasoline rules. That study which was submitted and published in October 1993, concluded that the refinery industry was fully capable of providing reformulated gasoline to the U.S. market as well as complying with the conventional gasoline anti-dumping rules. The study also concluded that the distribution system was capable of efficiently moving the needed products to the required markets.

I note that the study assumed that workable and flexible compliance regulations were developed and promulgated with adequate lead time for the industry to respond. EPA and the industry are working to achieve that goal as we speak.

Industry's ability to comply with the reformulated gasoline program could be affected by a multiplicity of factors. To meet the reformulated gasoline requirements, refiners must have a full understanding of all rules as well as the additional equipment needed for achieving vapor pressure, oxygenate and benzene requirements.

Additional tankage to accommodate the increased number of segregated fuel components and the terminal blending equipment will be needed throughout the systems.

And finally, an adequate supply of oxygenates including ethanol will be needed.

Based on the results of the National Petroleum Council study and recent contacts we have had with the refinery industry, we do not anticipate any significant shortages or pricing problems as a result of the reformulated gasoline requirements that were promulgated by EPA on December 15. We will continue to work with the EPA, our own Energy Information Administration, and industry to identify any potential problems as early as possible.

For example, we are working with EPA to monitor refiners' capacity to produce reformulated gasoline and the capability of the logistics system to handle the required gasolines and oxygenates. We will be meeting with east coast refiners to discuss their reformulated gasoline production capabilities and plans as we did last summer.

We will be comparing this information to our estimates of likely reformulated gasoline demand and to estimates of pipeline capacity to ship reformulated gasoline from the gulf coast to the Northeast States. We will also be discussing reformulated gasoline handling capability in the logistics system with some of the key players such as pipeline and terminal operators.

We will monitor production and inventory trends. We will examine early production and inventory data to compare to what we thought would happen. These are a number of ways in which we will keep monitoring progress and which will enable us and members of industry to spot potential trouble spots, allowing the industry to take action to avoid product shortages.

The fourth issue the committee has asked the Department to discuss, relates to EPA's proposed renewable oxygenate standard as part of the reformulated gasoline program. The Department of Energy has analyzed the energy and oil use and greenhouse gas emissions impacts associated with the proposed renewable oxygenate standard.

The draft analysis was provided to the EPA and Department of Agriculture in March 1994, and was distributed to a number of experts outside government as part of a peer review process for our internal study. This review process was completed in May, and our final report was prepared in early June. Copies have been distributed to the committee as well as to EPA and the Department of Agriculture.

Our analysis indicates that under a likely range of near-term scenarios, the effects on oil use, energy, and greenhouse gas emissions are essentially a wash. In the most likely scenario, total fossil energy use will decline by about one-half percent to 1 percent, while oil use will increase by perhaps 2 to 3 percent. Greenhouse gas emissions will be essentially unchanged as a result of the renewable oxygenate standard.

In the long run, we expect greater benefits in terms of fossil energy reductions and greenhouse gas emissions reductions if advanced technology and alternative feedstocks such as cellulose replace current production practices.

Our analysis also included an examination of the impact of the renewable oxygenate standard on ethanol use, current ethanol markets and ethanol transport needs.

Our analysis indicates that substantial increases in ethanol demand can be expected, that we would expect diversions from existing use of ethanol in conventional gasoline markets and substantial interstate movement of ethanol will be required in 1995. This is particularly true if refiners meet the oxygenate requirement during the winter months only, or during some fraction of the winter season.

We have not been able to analyze how these expected changes affecting ethanol use will in turn affect the existing gasolines distribution system or the implementation of reformulated gasoline program, since it is only now that refiners are making their plans for the proposed renewable oxygenate standard and the reformulated gasoline program. It is clear that increases in the need for product segregation and storage in the transportation and distribution system will be one of the biggest impacts, along with ethanol movement itself.

The reformulated gasoline rules combined with the anti-dumping requirements are reducing the flexibility in the gasoline logistics system. However, this is a very robust and flexible system.

The testimony of many witnesses at the May 1994 public hearing on the proposal by EPA, supports the view that the logistic system is capable of handling both reformulated gasoline and the renewable oxygenate standard requirements. The key issues that we will be collecting information on this summer, as the various players in the marketplace carry out their plans, are the following:

The reduced effective pipeline capacity and increased storage needs due to increased product segregation that is required for the increased number of grades and types of gasoline and distillate fuels moving through the system; increased need for terminal blending capacity; the transportation of ethanol itself and the potential disruption for conventional gasoline markets due to ethanol.

All of these issues are being examined by the administration, and both the DOE and EPA are working independently and together and are committed to doing everything to ensure that this is the smoothest transition possible.

I thank the committee for this opportunity to testify. And I look forward to your questions.

[The prepared statement of Ms. Tierney follows:]

TESTIMONY OF
SUSAN F. TIERNEY

I am pleased to be here to discuss various issues surrounding implementation of the reformulated gasoline (RFG) program which begins, at the retail level, on January 1, 1995. This program is a very important component of the overall Clean Air Act strategy for achieving attainment of the air quality standard for ozone and reductions in toxic pollutants.

The program will affect essentially all gasoline sold in the U.S. About one-third of gasoline will have to be reformulated in 1995 for distribution and sale in the regions with air quality problems, and the other two thirds will be controlled by the antidumping regulations that govern conventional gasoline. Changes in equipment or operating procedures will be required throughout the gasoline production and distribution system. Refineries will have to have the necessary facilities to reduce benzene and vapor pressure and produce the needed oxygenates to meet RFG requirements. Additional storage tanks and improved recordkeeping and tracking will be needed throughout the distribution system. While we don't anticipate any significant disruptions arising from the RFG regulations it is certainly possible, even likely with a program of this size, that minor problems will occur.

All parts of government and industry have been and will need to continue working together to assure smooth implementation of the program. For example, it will be particularly important for the Environmental Protection Agency to provide clear and complete guidance to the industry on the details of the implementing rules and for the Department of Energy and the Energy Information Administration to gather and publish, as soon as available, data on the production and inventory levels of reformulated gasoline.

This hearing covers a number of individual subjects related to the reformulated

gasoline program. The Department of Energy's involvement in many of them has been limited. Therefore, I will have to defer to the other witnesses, particularly the Environmental Protection Agency which has regulatory responsibility for the reformulated gasoline program, for more detailed responses on many issues.

Foreign Refiner Issues

The committee has asked for comment on various issues relating to foreign refiners' involvement in the reformulated gasoline program. The issues of interest to the Committee include the role played by Petroleos de Venezuela, S.A. (PDVSA) in the imported gasoline market; EPA's interactions with PDVSA, and the ability of PDVSA and other importers to certify RFG under the existing regulations.

Foreign refiners play a small but important role in supplying petroleum products to the U.S. They supply products in parts of the country where access to domestically produced products may be limited such as the upper Midwest and northern New England. They also provide competition in product pricing. On the East Coast (PAD District I), the area of the country using the greatest amount of imported petroleum products, about 11% of the gasoline used in 1993 was imported and a fifth of this -- about 2% of total 2.4 million barrels per day used in this region-- came from Venezuela. In response to the Committee's request these gasoline import patterns and trends are further described in Attachment 1 to this testimony.

The Department of Energy is satisfied that EPA's announced proposal concerning new baseline procedures for gasoline importers will neither unfairly limit importers' access to U.S. markets nor give an advantage to foreign suppliers that is not available to U.S. firms. The proposed procedures, if adopted, will allow all refiners and importers the same opportunity to establish the baseline characteristics of their 1990 gasolines provided that documentation, satisfactory to EPA, can be developed.

General Agreement on Tariffs and Trade (GATT) Issues

The letter of invitation asked a number of questions regarding PDVSA's challenge under GATT to the EPA rules. I defer to the other witnesses for a response to these questions.

The Committee also asked for an explanation of the GATT challenge by European auto manufacturers to the corporate average fuel economy (CAFE) standards as well as its status and impacts. Data on CAFE levels and penalties paid by foreign auto manufacturers and other information was also requested and is included as Attachment 2 to this testimony.

The nature of the CAFE challenge is complicated but basically revolves around an argument that U.S. domestic manufacturers have a greater opportunity to average across a wide range of products in determining their corporate average fuel economy level and that this constitutes an unfair advantage under GATT. We do not agree with this position, because of our view that the CAFE standards provide all manufacturers essentially the same opportunity. I defer to the witnesses representing the U.S. Trade Representative for further details on the case and to the Environmental Protection Agency for a response to the other parts of your question.

Implementation of RFG Program

The Committee has asked panelists to discuss issues relating to implementation of the reformulated gasoline rules, including what actions have been taken to monitor compliance and identify any likely problems.

The Department of Energy staff has been working and will continue to work with the responsible offices within the Environmental Protection Agency and with members of the refining industry to identify and address possible implementation problems. These efforts have ranged from participation in the regulatory negotiation and the filing of

detailed comments on EPA's notices of proposed rulemaking to analysis of specific issues raised by EPA staff. These specific efforts include:

- technical assistance to EPA in developing the "complex" reformulated gasoline certification model;
- cost effectiveness analysis of alternative year-2000 NO_x reduction standards;
- identification of current ethanol supply and demand patterns with implications for necessary ethanol movements;
- analysis of implications of the switch from JP-4 to JP-8 for specific refiners; and
- analysis of the ability to move refined product to PADD IV in the event of refinery closures.

In addition, the National Petroleum Council, at the request of the Department of Energy, performed a detailed multi-year study addressing a wide range of issues related to the reformulated gasoline rules. This study was published in October 1993 and directly addresses questions of reformulated gasoline availability in 1995.

That study concluded that the refining industry was fully capable of providing RFG and complying with the conventional gasoline antidumping rules. It also concluded that the distribution system was capable of efficiently moving the needed products to the required markets. Two caveats are needed in interpreting these conclusions. The first is that the study assumed that workable and flexible compliance requirements were developed and promulgated with adequate lead time for the industry to respond. EPA and the industry are working to achieve that goal right now. The second caveat is that the study did not consider an oxygenate use mandate such as the renewable oxygen standard, which would require a high level of ethanol use in place of MTBE.

Industry's ability to comply with the reformulated gasoline rules could be affected by a large number of factors. To meet the reformulated gasoline requirements refiners must have a full understanding of all the rules as well as the additional equipment needed to achieve vapor pressure, oxygenate and benzene requirements. Additional tankage to accommodate the increased number of segregated fuel components and terminal blending will be required throughout the logistics systems. Finally, an adequate supply of oxygenates will be needed. The availability of ethanol will be particularly important if the proposed renewable oxygenate standard is finalized. (See Below)

Based on the results of the National Petroleum Council study and recent contacts we have had with the refinery industry, we do not anticipate any significant shortages or pricing problems as a result of the reformulated gasoline requirements that were promulgated by EPA on December 15, 1993. However, we intend to work closely with industry, EPA and DOE's Energy Information Administration to identify any potential problems as early as possible. We will work with EPA to monitor refiners' capacity to produce reformulated gasoline and the capability of the logistics systems to handle the required gasolines and oxygenates. We will be meeting with East Coast refiners to discuss their RFG production capabilities and plans. We will be comparing this information to our estimates of likely RFG demand and to estimates of pipeline capacity to ship RFG from the Gulf Coast to the Northeast. We will also be discussing RFG handling capability of the logistics system with some of the key players such as pipeline and terminal operators.

We will also monitor production and inventory trends. We will examine the early production and inventory data to compare it to our estimates of what will be needed. This should enable us and members of the industry to spot any potential trouble spots and allow the industry to take action to avoid product shortages. However, we need to keep in mind that there is no historical data on RFG to allow comparisons. There may be significant shifts in traditional patterns of supply that will limit our ability to

draw firm conclusions. This will make good communications between government and industry even more important.

Ethanol Mandate Issue

The committee has asked us to comment on several issues related to the proposed renewable oxygenate standard including the Department's analysis of its impact on energy and the environment and on the possible effect it will have on smooth implementation of the RFG program.

The Department of Energy has analyzed the energy and oil use and greenhouse gas emissions impacts of the proposed renewable oxygenate standard. The draft analysis was provided to the Environmental Protection Agency and the Department of Agriculture on March 17, 1994, and was also distributed to a number of experts outside the government as part of a peer review process. This review process was completed in May and the final report prepared in early June 1994. Copies of the final analysis were provided to the Environmental Protection Agency and the Department of Agriculture on June 9, 1994.

Our analysis indicates that under a likely range of near-term scenarios, total fossil energy use will decline one-half to one percent, while oil use will increase two to three percent and greenhouse gas emissions will be essentially unchanged as a result of the renewable oxygenate standard. In the longer run we expect greater benefits in terms of fossil energy and greenhouse gas emissions reductions if advanced technology and alternative feedstocks such as cellulose replace current production practices.

The analysis also included an examination of the impact of the proposal on ethanol use, current ethanol markets and ethanol transport needs. The analysis indicates that substantial increases in ethanol demand, diversions from existing use in conventional

gasoline markets and interstate movement of ethanol will be required in 1995 to meet the requirements of the renewable oxygenate standard. This is particularly true if refiners have to meet the renewable oxygenate requirement during the winter months only or during some fraction of the winter season.

We have not been able to analyze how this increased level of ethanol use will affect the existing gasoline distribution system or the implementation of the RFG program since refiners have not yet made their plans for meeting the proposed requirements. It is clear, as cited in the letter of invitation, that increases in the need for product segregation and storage will be one of the biggest impacts along with the ethanol movement itself. The RFG rules, combined with the antidumping requirements, are reducing the flexibility of the gasoline logistics system. New oxygenate use requirements further stretch the capability of this system.

The testimony of many witnesses at the May 23, 1994 public hearing on the proposal supports the view that the logistic system is capable of handling both RFG and renewable oxygenate standard requirements. However, other witnesses disputed this. Issues of the reduced pipeline capacity and increased storage needs (due to increased product segregation required for the greater number of grades and types of gasoline and dyed distillate fuel oils), increased need for terminal blending capability, the transport of the ethanol itself and the potential disruption of conventional gasoline markets due to ethanol being used in RFG markets all need to be considered before one can be confident that no major problems will arise. All these issues are being examined as the Administration considers how to finalize its proposal. The Department of Energy will continue to provide data and analytical assistance to EPA to help identify and quantify those issues.

I thank the Committee for this opportunity to testify and I would be happy to answer any questions.

I. VENEZUELAN IMPORTS OF GASOLINE TO U.S. 1989-93

Thousands of Barrels

<u>Year</u>	<u>Blendstock</u>	<u>Finished Gasoline</u>	<u>Total</u>	<u>Total Thousands of Barrels/Day</u>
1989	3,346	27,661	31,007	85
1990	3,236	25,279	28,515	78
1991	1,712	17,622	19,334	53
1992	4,883	19,008	23,891	65
1993	3,561	14,731	18,262	50

1993 is preliminary

II. FRACTION OF VENEZUELAN IMPORTED PRODUCT BY PADD 1989-93

Includes both blendstock and finished gasoline

<u>Year</u>	<u>PADD I</u>	<u>PADDs II & III</u>	<u>PADDs IV & V</u>
1989	0.831	0.153	0.016
1990	0.832	0.168	0.000
1991	0.931	0.051	0.018
1992	0.961	0.039	0.000
1993	0.956	0.007	0.037

III. IMPORTS OF GASOLINE AND BLENDSTOCK FROM COUNTRIES OTHER THAN VENEZUELA 1990-93

Includes both blendstock and finished gasoline

Thousands of Barrels

<u>Year</u>	<u>Saudi A.</u>	<u>Brazil</u>	<u>Canada</u>	<u>France</u>	<u>Italy</u>	<u>V.Islands**</u>	<u>All Others*</u>	<u>Total*</u>	<u>Total Thousands Barrels/Day*</u>
1990	13,465	9,052	20,349	7,570	9,246	19,277	39,870	118,829	325
1991	12,340	5,719	25,582	9,962	3,549	17,534	27,457	98,594	280
1992	10,478	6,184	23,598	8,115	7,290	18,286	24,880	98,831	270
1993	5,758	10,632	20,292	3,853	4,734	20,549	16,116	56,278	154

*Excluding Venezuela. Includes primarily Spain, Netherlands, Belgium and Romania

**U.S. Virgin Islands treated as imports by Energy Information Administration

IV. TOTAL MOTOR GASOLINE CONSUMPTION 1990-93

Millions of Barrels

Per Day

<u>Year</u>	<u>Product Supplied</u>
1990	7 235
1991	7 118
1992	7 268
1993	7 476

CAFE RATINGS FOR BMW, VOLVO, AUDI AND MERCEDES, 1985-1994
(miles per gallon)

<u>Model Year</u>	<u>BMW</u>	<u>VOLVO</u>	<u>AUDI</u>	<u>MERCEDES</u>
1885	26.4	27.2	30.5	23.6
1986	25.7	26.8	29.8	21.3
1987	24.9	26.4	30.1	22.3
1988	21.7	26.0	30.5	21.3
1989	22.2	25.0	30.4	21.4
1990	22.2	25.1	29.1	21.4
1991	23.2	25.3	29.9	22.3
1992	24.0	25.6	29.2*	21.8*
1993	25.2*	22.9*	25.9*	27.0*
1994	25.1*	25.6*	28.5*	23.6*

* preliminary estimates
Source: DOT/NHTSA

BMW, VOLVO, VW/AUDI, AND MERCEDES BENZ CAFE FINES, 1985-1991
(in millions of current U.S. dollars)

<u>Model Year</u>	<u>BMW</u>	<u>VOLVO</u>	<u>AUDI</u>	<u>MERCEDES</u>
1885	0	0	0	5.5
1986	0	0	0	20.2
1987	1.1	0	0	20.5
1988	16.4	0	0	18.3
1989	14.9	1.0	0	20.4
1990	14.9	12.2	0	17.6
1991	11.2	7.8	0	19.2
Total	58.5	21.0	0	121.8

Note: data as of October 1993, covering through model year 1991; no fines established for model year
Source: DOT/NHTSA

Mr. DINGELL. Thanks, Ms. Tierney.
Mr. Shapiro.

TESTIMONY OF IRA S. SHAPIRO

Mr. SHAPIRO. Thank you, Mr. Chairman.

I welcome the opportunity to be here on behalf of the USTR to testify on this important issue.

Mr. Chairman, I think EPA's final rule promulgated on December 15, this rulemaking process and indeed the range of comments by the members of the subcommittee, illustrate the complexity of the issues when trade and environment intersect.

I think that all of us agree with Vice President Gore's comments in Marrakesh in April, that: "We are not faced with a choice between trade and environment. We can—and must—have both."

But, Mr. Chairman, that doesn't mean that there may not be tensions between the way our environmental laws are implemented and our international obligations. And since this administration came into office, it has been USTR's commitment as well as the rest of the administration's, to try to resolve these tensions in a way that allows us to have both: so that we can continue to protect the environment while operating under a system of predictable trade rules that protect our exports from discrimination and double standards abroad.

And that approach, Mr. Chairman, has governed our handling of trade and environment policies on a number of fronts, starting with the NAFTA, our efforts in Geneva to strengthen the texts on sanitary and phytosanitary measures and technical barriers to trade, so that those texts would be far more sensitive to the rights of our country to adopt and maintain high standards in the environment and food safety arenas.

We have also made a strong effort to ensure that the new World Trade Organization would have a permanent Committee on Trade and the Environment with an ambitious program, and we have been virtually alone in moving the international system on that and have succeeded in moving it forward. We have also defended vigorously and will continue to defend vigorously, U.S. environmental and conservation laws against GATT challenges.

And in a recent letter to Peter Sutherland, the GATT Director General, Mr. Chairman, Ambassador Kantor underscored his determination on a point that you raised which is to continue the efforts that we have already begun to open up the process of dispute settlement so that nongovernmental organizations, the Congress and the public can have full confidence in decisions that are made in trade cases with environmental implications.

Against that record, Mr. Chairman, and the commitment that we have to bringing these difficult issues together, I would like to briefly review our role in counseling EPA on the GATT implications in the reformulated gasoline matter.

Also, I would say at the outset that throughout EPA's consideration of these regulations, USTR was very conscious that this was a Clean Air Act regulation that was at stake, and fulfilling the requirements of the Clean Air Act was the overriding consideration.

In the fall of 1992, our staff was informed of the rulemaking process for RFG under the Clean Air Act through contacts with

EPA, Federal Register notices and information that was brought to us by PDVSA representatives. In December 1992, EPA staff visited USTR to explain the status of the reformulated gas rule, focusing particularly on EPA's use of individual company "baselines" for domestic refiners and "statutory baselines" for importers of foreign reformulated gas.

At that time, and this is still back in 1992, USTR staff explained to EPA the relevance of certain GATT provisions and offered preliminary views on the options that EPA was considering. USTR's GATT concerns, in fact, mirrored EPA's expressed regulatory concerns that the rule promulgated be applied equitably between refiners.

During 1993, EPA consulted with representatives of PDVSA about the possibility of allowing PDVSA refiners to establish an individual baseline. And when I say the "possibility," I mean the workability of such a scheme in terms of Clean Air Act requirements.

In the fall of 1993, it seemed that EPA was close to reaching the conclusion that Venezuela's concerns could be accommodated while complying with the Clean Air Act requirements for reformulated gas. However, in November 1993, USTR staff learned that EPA was finalizing or planning to finalize a rule in December that would not allow PDVSA to establish an individual baseline.

Our staff advised EPA again of the potential GATT implications of the approach. We advised Ambassador Kantor that EPA was planning to issue a rule which would treat foreign and domestic refiners differently and that Venezuela was likely to challenge in the GATT.

Ambassador Kantor responded that the decision on a Clean Air Act regulation was EPA's to make and that USTR would obviously respect EPA's determination that the regulation was necessary to meet statutory requirements and EPA objectives, and that position was mirrored at our December 14 meeting where we provided advice on the potential GATT implications of the rule, but noted that it was for EPA to decide what the Clean Air Act required.

At that time, EPA staff also advised us on the technical discussions were ongoing with Venezuela and that the Agency had not yet satisfied itself that it had identified the best solution to the issue of whether to give foreign refiners individual baselines.

We understood that the door remained open, as EPA noted on December 15, for further discussion of that question.

The next month, on January 14, the government of Venezuela requested formal consultations with the United States under GATT Article XXII. This was separate from the ongoing EPA and PDVSA technical discussions, and we held consultations with Venezuela in Washington on February 11 at which they alleged that the December 15 reformulated gasoline rule was inconsistent with GATT obligations.

Their primary allegation was that the rule as formulated on December 15 was inconsistent with the principle of "national treatment" embodied in Article III, which requires countries to provide imports with treatment that is no less favorable than the treatment afforded to similar products produced domestically.

Now, on its face, the EPA rule promulgated on December 15 subjects imported gasoline to different rules than those applied domestically refined reformulated gasoline, and it does pose an unmistakable GATT question. This issue was under discussion within the U.S. government for more than a year and recognized as a serious potential issue.

Now, some have argued that even if EPA's rule were found to present a case for treating an imported product less favorably in violation of Article III, the United States could still assert a strong defense under Article XX of the GATT.

As this committee knows, Article XX provides general exceptions to basic GATT obligations, including for certain health and conservation measures. We have studied with interest, the GATT analysis submitted to us by representatives of the U.S. oil industry.

Unfortunately, their analysis of Article XX overlooks its plain language, that Article XX exceptions are only available if health and conservation measures do not constitute a means of, "arbitrary or unjustifiable discrimination."

Article XX operates to strike a fine line between ensuring that countries will be able to carry out their health, environmental, and conservation policies effectively while at the same time not providing countries with a convenient cover for any deliberate discrimination.

Now, since under the GATT a country invoking one of the Article XX exceptions is required to show why that exception applies, it is up to the country promulgating the measure to show that the discrimination is needed to protect health or promote conservation.

Accordingly, both before the time the rule was issued and after, we have worked closely with the EPA as the Agency assessed whether there was adequate justification for not affording Venezuelan refineries the opportunity to establish an individual baseline. During February and March of this year, EPA staff determined that under carefully considered circumstances, it believed it could establish, verify, and monitor an individual baseline for Venezuelan gasoline. This became the basis of the proposed regulation.

That process was nearly complete when Venezuela advised Ambassador Kantor that it would be placing on the agenda of the March GATT Council meeting a request for establishment of a dispute settlement panel. It was our position that before the GATT panel was formed to examine Venezuela's complaint, the decision-making process that EPA was engaged in ought to be permitted to conclude, allowing EPA to determine whether the concerns raised could be accommodated within the requirements of the Clean Air Act.

Consequently, the U.S. Government made a proposal to Venezuela. We would not block their request for a GATT panel, at the May meeting, if they basically did not seek one at the March meeting and, ultimately, our then understanding of the agreement was that EPA's issuance of a proposed rule would satisfy Venezuela, and they would withdraw their request for a GATT panel.

As the State Department and others have indicated, as Mr. Watson indicated, we provided no assurance to Venezuela as to the content of any final rule which was open for public comment, and was

an important part of EPA reaching its decision on what the Clean Air Act required.

Venezuela retains its ability to proceed with the GATT challenge if it is not satisfied with the rule as it turns out.

Now, in the committee's questions, the committee has asked why the administration simply did not accept the risk of losing a GATT challenge on EPA's December rule. USTR believes that it is essential to try to make our country's environmental objectives and trade objectives compatible where possible.

In this case, the Clean Air Act requirements have been and remain of overriding importance. We will—we were prepared and are prepared to—defend any regulation that EPA ultimately issues on this if EPA concludes that different treatment of Venezuela is needed to accomplish the requirements of the act. But it has been our view throughout the process that if the Act's requirements could be accommodated in a way that didn't raise GATT concerns, that that would be preferable and that we should not invite a GATT challenge if the requirements could be met otherwise.

Mr. Chairman, I want to just turn briefly to your questions about the pending GATT challenge on the corporate average fuel economy, or CAFE, requirements.

And I'm sorry that Congressman Waxman isn't here, but I did want to say that I think he raised an important point about whether this case signifies anything about our level of commitment to defending U.S. environment health and safety measures. And I can say, Mr. Chairman, unequivocally that it does not, and we are prepared to defend very strongly U.S. health safety conservation and environmental measures. We have done so in the cases of tuna/dolphin, involving the Marine Mammal Protection Act, and we have been litigating, what we consider litigating, the CAFE case very strongly now for over a year.

In this case, as you know, the EC has challenged the CAFE law of the United States as well as the gas guzzler and luxury taxes. The EC alleges that those three laws are inconsistent with our national treatment obligations under Article III. The panel met twice last year and we have made numerous very detailed submissions—copies of which are available to the public.

This dispute is ongoing, so I'm slightly constrained in what I can say here. But I want to assure the committee that we have presented very strong arguments defending the CAFE requirements and other measures. In contrast to other measures that have been challenged under GATT, all three of these U.S. laws that have been challenged are facially neutral.

They apply equally to domestic and foreign-built cars, so the EC has made the principal argument that the laws have a "disproportionate impact" or discriminatory effect on their exports. And we have made submissions that have been focused on pointing out why that argument is misguided.

First of all, the CAFE law and the others are trade-neutral, treating domestic and foreign cars identically, and the so-called "disproportionate impact" is not enough to establish a claim under GATT Article III.

Second, CAFE does not adversely affect imports as such or even all European manufacturers. Companies from our most serious

auto competitor, Japan, as well as some other European companies such as Volkswagen have never paid CAFE's penalties.

The average CAFE, in fact, for all imports has been higher than for domestic cars, so this is plainly not a statute that discriminates against imported automobiles.

Third, the only parties that are supposedly disproportionately affected are some European luxury car makers, largely Mercedes and BMW, that have paid CAFE penalties since the mid-1980's as a matter of choice, not because CAFE is discriminatory.

This is an interesting issue as the Chairman knows, because this statutory scheme was on the books I think 18 years before this challenge was brought. When CAFE was first enacted, there was no indication that European manufacturers would not be able to comply with its requirements. Indeed, at that time, and I think the chart indicates this that I have attached to our testimony, Mercedes-Benz and BMW actually had CAFE's above the "big three" U.S. manufacturers.

Essentially, the fact is that after complying for several years, several European companies chose to shift their product offerings up-market to larger, more powerful and gas-guzzling automobiles. We showed the GATT panel—we believe we have showed the GATT panel—that the European car makers do produce more fuel efficient cars in Europe but chose not to export them to the United States. And the chart indicates the slippage in their CAFE ratings from about 1983 and 1984, to the present time.

In contrast, U.S. manufacturers which have invested billions of dollars in developing fuel-efficient technology and new product offerings have met the CAFE requirements. Consequently, I would say to the subcommittee that we have argued that the corporate decisions of European manufacturers not to comply with our fuel conservation law does not make CAFE discriminatory in any way or in any way inconsistent with our GATT obligations.

And I would just conclude by saying that the reason we are concerned and have fought this panel as vigorously as we have is that the notion that a neutral statutory scheme could somehow be challenged successfully so long after its enactment, on the basis of the concerns of several car makers, would be a serious extension of reasoning under national treatment.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Shapiro follows:]

TESTIMONY OF IRA S. SHAPIRO
GENERAL COUNSEL
OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE

BEFORE THE SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
COMMITTEE ON ENERGY AND COMMERCE
U.S. HOUSE OF REPRESENTATIVES

June 22, 1994

I welcome the opportunity to testify on behalf of USTR as the Committee reviews the Environmental Protection Agency's implementation of the Clean Air Act Amendments with respect to reformulated gasoline. I will also address the Committee's questions about the European Community's pending challenge under the General Agreement on Tariffs and Trade to U.S. corporate average fuel economy (CAFE) requirements.

EPA's final rule regarding reformulated gasoline, promulgated on December 15, 1993, EPA's notice of proposed rulemaking signed on April 21, 1994 and this hearing illustrate the complex issues which can be posed when trade and environmental issues intersect. I think we all agree with Vice President Gore's statement last April in Marrakesh: "We are not faced with a choice between trade and environment. We can -- and must -- have both." But this does not mean that there may not be tensions between the ways environmental laws are implemented and our international obligations. Since this Administration came into office, it has been USTR's commitment to try to resolve these kinds of tensions so that we can "have both": so that we can continue to protect our environment while operating under a system of predictable trade rules that protect our exports from discrimination and double standards abroad.

For that reason, this Administration has worked intensively to make our trade and environment policies compatible in a wide variety of situations, including this latest EPA regulation on reformulated gas.

We insisted on --- and achieved --- a landmark supplemental agreement to the NAFTA, dealing with the environment.

In Geneva, in December, we succeeded in negotiating changes to the Dunkel text on sanitary and phytosanitary measures (SPS) and technical barriers to trade (TBT) which made those texts far more sensitive to the right of this country to adopt and maintain high standards in the environment and food safety arenas.

We made major efforts to ensure that the new WTO would include a permanent Committee on Trade and the Environment, with an ambitious work program. Virtually alone, we succeeded in convincing our trading partners to create such a committee, which they did in a Ministerial Decision on April 14, 1994.

Over the last year, we have vigorously defended U.S. environmental and conservation laws against GATT challenges, and supported the President's recent decision under the Pelly Amendment to impose trade sanctions against Taiwan for its trade in rhinoceros horns and tiger bones.

In a June 10, 1994 letter to GATT Director-General Peter Sutherland, Ambassador Kantor underscored his determination to continue efforts that we have already started to open up the process of dispute settlement in the WTO so that NGOs and the public can have confidence in the decisions made in trade cases which have environmental implications.

Against the background of that record, and that commitment to the environment, I would like to briefly review USTR's role in counseling EPA on the GATT implications of regulations it might choose to adopt.

I know that the members of this Committee labored for years over the myriad details of the 1990 amendments to the Clean Air Act, including the reformulated gasoline program. While I am not an expert, I understand that reformulated gasoline will contribute to reducing levels of air pollution in our metropolitan areas. USTR fully shares the Administration's, and the Committee's, resolve to implement this program on time and in a fully effective manner.

Throughout EPA's consideration of regulations for reformulated gas, USTR was very conscious that a Clean Air Act regulation was at stake, and fulfilling the requirements of the Clean Air Act was the overriding consideration.

In the fall of 1992, USTR staff were informed of the rulemaking process for reformulated gasoline regulations under the Clean Air Act through contacts with EPA staff, Federal Register notices, and information provided by representatives of the Venezuelan oil company -- Petroleos de Venezuela (PDVSA). In December 1992, EPA staff visited USTR to explain the status of the reformulated gasoline rule, focussing particularly on EPA's use of individual company "baselines" for domestic refiners and "statutory baselines" for importers of foreign reformulated gasoline. USTR staff explained to EPA the relevance of certain GATT provisions and offered preliminary views on some of the options EPA was considering. USTR's GATT concerns in fact mirrored EPA's expressed regulatory concern that its rule be applied equitably between refiners.

During 1993, EPA consulted with representatives from PDVSA on the possibility of allowing PDVSA refiners to establish an individual baseline. In the fall of 1993, EPA appeared to be close to reaching the conclusion that Venezuela's concerns could be accommodated while complying with the Clean Air Act's requirements for reformulated gas. However, in November 1993, USTR staff learned that EPA was planning to issue a final rule in December -- in response to a court-ordered deadline -- that did not allow PDVSA to establish an individual baseline. USTR staff again advised EPA of the potential GATT implications of such an approach. USTR staff advised Ambassador Kantor that EPA was planning to issue a rule which treated foreign and domestic refiners differently and which Venezuela was likely to challenge in the GATT. Ambassador Kantor responded that the decision on a Clean Air Act regulation was EPA's to make, and that USTR would respect EPA's determination that the regulation was necessary to meet statutory requirements and EPA's objectives.

USTR's position at a December 14 inter-agency meeting was in keeping with Ambassador Kantor's decision. We were asked to, and provided, advice on the possible GATT implications of a rule that treated foreign refiners differently than domestic refiners, but noted that it was for EPA to determine what the Clean Air Act required.

At that time, EPA staff also advised us that technical discussions with Venezuela were still under way, and that the agency was not yet fully satisfied that it had identified the best solution to the issue of individual baselines for foreign refiners. When EPA issued its final rule under the court-ordered deadline of December 15, we understood that EPA would leave the door open for further refinement of the reformulated gas rule, and EPA advised the public that possible solutions to the Venezuela issue were still being considered.

On January 14, 1994 the Government of Venezuela requested formal consultations with the United States under GATT Article XXII. This was separate from ongoing EPA-PDVSA technical discussions. Consultations were held in Washington with Venezuela on February 11, during which Venezuela alleged that the December 15 reformulated gas rule was inconsistent with U.S. GATT obligations. Venezuela's primary allegation was that the rule was inconsistent with the principle of "national treatment" embodied in Article III, which requires countries to provide imports with treatment that is no less favorable than the treatment afforded to similar products produced domestically.

On its face, the EPA rule promulgated on December 15 subjects imported gasoline to different rules than those applied to domestically-refined reformulated gasoline. As such, it posed an unmistakable GATT question. This GATT issue was under discussion within the U.S. Government and recognized as a serious potential problem for over a year as part of EPA's deliberations on the rule.

Some have argued that even if EPA's rule were found to present a case of treating an imported product less favorably, in violation of Article III, the United States could assert a strong defense under Article XX of the GATT. As the Committee knows, Article XX provides general exceptions to basic GATT obligations, including for certain health and conservation measures. We have studied with interest the GATT analysis submitted to you by representatives of the U.S. oil industry. Unfortunately, their analysis of Article XX overlooks its plain language: the Article XX exceptions are only available if the health or conservation measures do not constitute a means of "arbitrary or unjustifiable discrimination."

Let me illustrate this point with an example. If EPA were to require foreign reformulated gasoline to be three times "cleaner" than U.S. gasoline, it would surely have furthered the objectives of the Clean Air Act. But this would be patently discriminatory, and would not have met the requirements of the Article XX defense, and nor should it. Article XX must operate to strike a fine line between ensuring that countries are able to carry out their health, environmental and conservation policies effectively, while at the same time not providing countries with convenient cover for deliberate discrimination.

Since under the GATT a country invoking one of the Article XX exceptions is required to show why the exception applies, it is up to the country promulgating the measure to show that discrimination is needed to protect health or promote conservation. Accordingly, both before and after issuance of EPA's rule on December 15, USTR staff worked closely with EPA as the agency assessed whether there was adequate justification for not affording Venezuelan refineries the opportunity to establish an individual baseline. During February and March of this year, the EPA staff determined that, under carefully limited circumstances, it believed it could establish, verify, and monitor an individual baseline for Venezuelan gas. That process was nearly complete when Venezuela notified Ambassador Kantor on March 8 that it would be placing on the agenda for the March 22 meeting of the GATT Council a request for the establishment of a dispute settlement panel under GATT Article XXIII.

The Administration felt that, before a GATT panel was formed to examine Venezuela's complaint, the decisionmaking process should be allowed to conclude and permit EPA to determine whether

the concerns raised in the EPA rulemaking process could be accommodated within the requirements of the Clean Air Act. GATT procedures allow the country whose measure is being challenged to block a request for the establishment of a panel, but only once. The U.S. Government therefore made a proposal to Venezuela. The United States would not block a Venezuelan request for a panel at the May GATT Council meeting if Venezuela would not seek a panel at the March GATT Council meeting (which we would block). Venezuela rejected this proposal, but agreed that it would withdraw its request before the March 22 Council meeting if the Administration appeared to be making progress by then. The Administration's understanding was that EPA's issuance of a proposed rule would satisfy Venezuela, and it would withdraw its request. Of course, the U.S. Government did not provide any assurance as to the content of a final rule, if any. Venezuela has retained its ability to proceed with a challenge if no satisfactory final rule is issued.

The Committee has asked us why the Administration simply did not accept the risk of losing a GATT challenge to EPA's December rule. USTR believes that it is essential to try to make our country's environmental objectives and our trade objectives compatible, where possible. In this case, the Clean Air Act requirements have been -- and remain -- of overriding importance. USTR was prepared -- and is prepared -- to vigorously defend a GATT case if EPA concludes that different treatment for Venezuela is necessary to accomplish the requirements of the Act, or if EPA reaches that conclusion based on public comment on the new proposed rule. But it was USTR's view throughout this process that we should not invite a GATT challenge on reformulated gasoline if EPA determined that the Clean Air Act requirements could be realized in a way that did not raise such GATT concerns.

I will now turn to the Committee's questions concerning the EC's pending GATT challenge to our corporate average fuel economy (CAFE) requirements. As the Committee knows, a GATT dispute settlement panel has been reviewing the EC challenge to CAFE, as well as the gas guzzler and luxury taxes, since last year. The EC has alleged that the three U.S. laws are inconsistent with U.S. national treatment obligations under GATT Article III. The panel met twice last fall, and we have made numerous, very detailed submissions, copies of which have been available to the public. With respect to CAFE specifically, we have received assistance from EPA, the National Highway Traffic Safety Administration, and the Department of Energy.

This dispute is ongoing, so I am somewhat constrained in what I am able to say. However, the United States has presented very strong arguments to defend CAFE requirements and the other measures, which are part of the public record. In contrast to most measures that have been subjected to GATT dispute settlement proceedings, all three of the U.S. laws challenged in the CAFE dispute are facially neutral; in other words, they apply equally to domestic and foreign-built cars. So, the EC's principal argument has been that these laws have had a "disproportionate impact" or a discriminatory effect on their exports.

Our submissions have argued that the EC's legal and factual claims on CAFE are misguided for several obvious reasons.

- o First, the CAFE law is trade-neutral, treating domestic and foreign cars identically, and a so-called "disproportionate impact" is not enough to establish a claim under GATT Article III.

- o Second, CAFE does not adversely affect imports as such or even all European manufacturers: companies from our most serious automotive competitor, Japan, as well as other European companies (such as Volkswagen), have not paid CAFE penalties. (EC exports account for less than 4 percent of the U.S. market.) The average CAFE for all imports has always been higher than that of domestic cars.
- o Third, the only parties that are supposedly "disproportionately affected" are some European luxury car makers (largely Mercedes-Benz and BMW) that have paid CAFE penalties since the mid-1980s as a matter of choice, not because CAFE is discriminatory. When CAFE was first enacted, there was no indication that European manufacturers would not be able to comply with the requirements -- Mercedes and BMW had CAFES above the Big Three U.S. manufacturers at the beginning of the program. When the law was drafted in 1975, three quarters of American cars had fuel economies below 27.5 miles per gallon, which is the current standard, while the fuel economy of imports was much higher.

The fact is, that after complying with CAFE for several years, European companies such as Mercedes and BMW shifted their product offerings up-market to larger, more powerful -- and gas-guzzling -- automobiles. We showed the GATT panel that European car makers do produce more fuel-efficient cars in Europe, but choose not to export them to the United States. There's a chart attached to my testimony produced by the Traffic Safety Administration that illustrates how, after achieving CAFES near the current standard of 27.5 miles-per-gallon in 1983 and 1984, Mercedes' and BMW's CAFES slipped to just above 21 miles per gallon in the second part of the decade. In contrast, U.S. manufacturers, who invested billions of dollars in developing fuel efficiency technology and new product offerings after 1975, have met CAFE requirements.

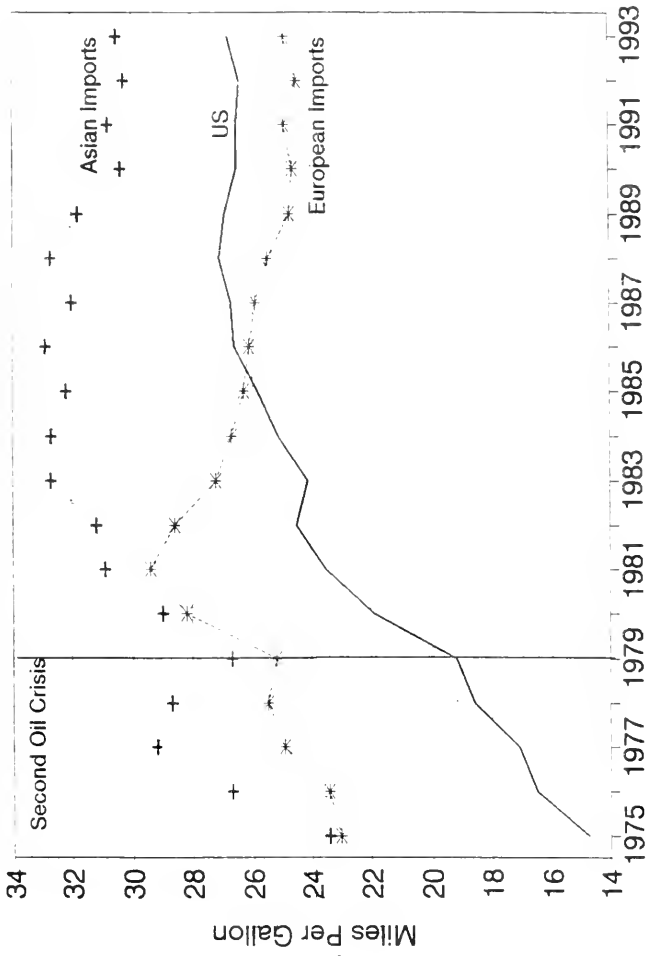
In sum, we have argued that the corporate decisions of European manufacturers not to comply with our fuel conservation law do not make CAFE discriminatory or in any way inconsistent with our GATT obligations.

I would be pleased to answer further questions from the Committee.

FUEL ECONOMY FOR PASSENGER AUTOMOBILES FOR MODEL YEARS 1978-1993

MANUFACTURER	MODEL YEAR													1991	1992	1993	
	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990				
STANDARDS	18.0	19.0	20.0	22.0	24.0	26.0	27.0	27.5	26.0	26.0	26.0	26.5	27.5	27.5	27.5	27.5	27.5
(DOMESTICS)																	
AMC	18.6	19.9	22.3	23.1	25.0	24.5											
CHECKER	17.7	16.7	19.1	19.1													
CHRYSLER	18.4	20.5	22.3	26.8	27.6	26.9	27.8	27.8	27.8	27.5	28.5	28.0	27.4	27.5	27.8	27.8	27.5
FORD	18.4	19.2	22.9	24.1	25.0	24.3	25.8	26.6	27.0	26.9	26.6	26.6	26.3	27.6	27.3	28.1	28.1
GM	19.0	19.1	22.6	23.8	24.6	24.0	24.9	25.8	26.6	26.9	27.6	27.3	27.1	27.1	26.8	27.4	27.4
MAZDA																	29.2
VECTOR																10.0	10.0
(IMPORTS)																	
ALFA-ROMEO	21.4	20.7	22.4	23.1	25.0	25.8	27.5	27.7	27.9								
AMSC-RENAULT	30.4	30.3	34.3	30.2	32.9	35.7	35.5	33.8	33.6								
AUSTIN ROVER										23.5	23.6	23.6	24.8	25.2			
BERTONE						29.7	29.8	29.8	29.4	29.5	29.4						
BMW	19.7	20.1	26.7	27.3	26.9	26.2	28.0	26.4	25.7	24.9	21.7	22.7	22.2	23.2	24.0	25.2	25.2
CHRYSLER	30.6	32.3	33.6	32.9	33.6	34.5	36.4	36.2	36.8	33.4	30.7	30.3	28.9	28.7	29.2	30.8	30.8
HONDA											46.8	44.1	41.0	43.6	41.3		
INFINITI						13.5	14.4	14.3	16.1								
FIAT	21.7	26.4	27.4	28.4	26.1					24.1	22.6	22.1	20.1	23.2	22.5	23.7	23.7
FORD	37.3	32.1	30.7	35.2	34.9	36.0	35.6	25.2	24.3	24.2	35.9	31.7	32.4	33.2	25.4	27.0	27.0
GM								43.8	41.2	39.0	37.6	40.4	32.3	31.8	31.1	29.7	29.7
HONDA	33.7	29.0	30.1	31.6	33.9	36.0	35.8	34.5	33.3	33.2	32.1	31.6	30.8	30.7	31.3	32.0	32.0
HYUNDAI										35.1	34.8	34.5	33.4	33.3	32.9	31.3	31.0
ISUZU				35.6	38.1	31.4	29.2	34.2	35.5	38.8	34.9	35.8	33.5	34.9	32.5	33.0	33.0
JAGUAR	21.1	21.2	22.2	19.0	19.0	19.2	19.4	19.3	19.0	19.3	22.1	20.8					
KIA																	31.7
KASERATI	12.5	12.5			10.1	10.2	17.9	16.8	16.4	17.8		18.7	19.1	19.3			
MAZDA	35.5	25.6	26.8	31.9	29.8	29.4	30.6	30.3	29.7	29.6	28.7	29.8	30.2	30.5	30.7	30.8	30.8
MERCEDES-BENZ	19.2	20.5	24.6	26.3	26.6	27.2	26.2	23.6	21.3	22.3	21.3	21.4	21.4	22.3	21.8	22.9	22.9
MITSUBISHI						30.8	31.6	31.9	31.5	31.7	31.2	31.4	30.4	30.3	28.9	29.1	29.1
NISSAN	26.8	26.8	32.2	31.4	31.2	33.4	32.5	30.1	30.3	29.7	30.8	30.4	28.5	29.2	29.4	-29.0	-29.0
PEUGEOT	24.8	23.8	28.1	28.7	28.0	25.6	25.0	25.2	24.8	24.1	23.6	25.5	25.5	26.3	25.0		
PININFARINA						29.5	29.0	28.0									
PORSCHE								26.3	25.4	25.4	24.7	23.0	21.7	21.1	22.4	22.5	22.5
ROLLS-ROYCE	10.8	10.8	11.4	11.2	11.0	11.2	11.2	11.2	11.1	11.4	12.4	12.5	13.2	13.3	14.3		
SAAB	22.7	21.7	24.3	24.1	24.6	26.6	26.0	26.4	26.3	26.2	26.5	26.6					
SUBARU	29.4	29.0	28.7	32.0	32.0	33.0	33.3	32.6	31.9	31.0	31.9	32.5	28.2	28.4	27.8	29.3	29.3
SUZUKI								58.7	52.5	50.4	50.3	36.9	46.5	43.2	44.7	46.4	46.4
TOYOTA	26.8	24.0	28.3	31.8	30.9	33.3	33.5	33.5	32.7	33.4	33.0	32.1	30.8	30.9	28.8	28.8	28.8
VOLVO	21.2	21.0	22.3	22.9	25.0	26.5	27.0	27.2	26.8	26.4	26.0	25.0	25.1	25.3	25.6	25.9	25.9
VW	27.2	28.6	32.3	35.2	33.4	30.7	29.1	30.5	29.8	30.1	30.5	30.4	29.1	29.9	29.2	27.0	27.0
YUGO										32.1	33.9	34.0	33.6	34.0	34.6		

COMPARATIVE FUEL ECONOMY US PRODUCTION AND FOREIGN IMPORTS



Source: EPA Technical Report EPA/AA/TD/G/93-01, "Light-duty Automotive Technology and Fuel Economy Trends Through 1993," May 1993.

Mr. DINGELL. Thank you, Mr. Shapiro.

Ms. Nichols.

TESTIMONY OF MARY NICHOLS

Ms. NICHOLS. Thank you, Mr. Chairman.

I have submitted written testimony, and yesterday also delivered to your offices for the committee, answers to the questions that were submitted in writing. And I would like to ask that those be entered into the record.

I would like to just briefly make a few remarks and then if there are additional questions, of course, we will be happy to answer them.

Mr. DINGELL. Without objection, that will be done. And we will recognize you for such summary as you choose to give, Ms. Nichols.

Ms. NICHOLS. Thank you very much.

Mr. Chairman, I want to thank you for holding this hearing today and particularly for putting the issue of reformulated gasoline into a broader context of implementation of the Clean Air Act.

I have brought along with me a chart which reflects where we are with respect to implementation of the Clean Air Act amendments of 1990. And I simply want to say and to thank you and others for your comments earlier this morning that indeed EPA is working very hard to implement the 1990 amendments aggressively.

We were faced with a backlog of deadlines that had not been met in the past and of rules that had not been issued, of decisions that needed to be made. We believe that we have made major progress within the last few months in cleaning up that backlog and would simply like to point out using this chart, that to date we have now issued emissions-reducing regulations which are addressed to, and we expect will achieve about 90 percent of the reductions that are required under the 1990 amendments.

In addition to that, we have seen major efforts on the part of the States to submit implementation plans and amendments to their plans that are required under the amendments. And perhaps most importantly of all, despite the very poor weather conditions this summer, the high temperatures and inversion levels, we are seeing improvements continuing in the level of emissions, and even when we are experiencing violations of the health standards, we are still seeing overall, the trend lines are continuing to move in the right direction, which is to reduce the overall levels of pollution in our smoggiest areas.

We feel that the reformulated gasoline rule that is the major subject of the committee's attention today, is one of the critical components of this success story and of our ability to not only achieve but to maintain air quality standards in the future as driving numbers of cars and the vehicle miles travel continue to grow. The reformulated gasoline program is an important component of the State's plans for achieving the mandatory 15 percent reductions in volatile organic compounds that the act called for and it has been a popular program.

It has been adopted by States that were not required to implement the program, so that today the entire Northeastern United States has now opted into the program.

EPA's goal in this administration has been to promulgate the regulatory negotiation that was agreed to in 1991, to get the regulations that describe the basic program out by the court-ordered deadline of December 15, 1993, and as with this committee, to ensure that there will be an adequate supply of reformulated gasoline on time when the program is scheduled to begin, with no price spikes.

Since we came out with the proposal or with the final rule, excuse me, since the Administrator signed the final rule on December 15, we have indeed proposed changes around the margins of the program. We have proposed two additions to the program which were not part of the December 15 rule, and both of those are under consideration at the moment. They are on slightly different timetables, but we have not made final decisions with respect to either one of these items and we are reviewing and have sought very extensive public comment on these issues.

We did decide on December 15 to indicate to the Venezuelans and to other interested parties, that we were open to considering a change in the baseline calculation provision of the act, and I will just take a second to, if I may, to amplify on that.

In the regulatory negotiation, EPA and all of the other parties agreed that there would be a 3-year window from 1995 to 1998 under—during which companies would be allowed to apply for individual baselines under the reformulated gasoline program, and then in 1998, all would be subjected to the use of a complex model which would ensure that everyone would be achieving the exact same amount of reductions.

During that 3-year, phase-one period, companies could apply based on data to establish their own individual baselines. When I came to my job in November of this past year, 1993, I found that this rule was nearing its final stage and this was one of several issues that remained to be addressed.

I was aware at that time that the staff at EPA had reached a considerable degree of comfort with the notion that there could be a separate baseline established for foreign refiners as well as for domestic refiners, the issue had not been explicitly addressed in the "Reg Neg" at all. I, however, simply did not have time to address that issue to be fully briefed on it and to reach a level of comfort that enabled me to make that proposal to the Administrator.

Therefore, when we went out in December 15 with the final rule, we did not include any special treatment or any indication that foreign refiners would be allowed to achieve the same degree of consideration for establishing a baseline as domestics would.

So to the extent that there has been a shift in position on the part of the EPA, I think I need to acknowledge that there is a responsibility there on my part as a result of having come into the process late, and my principal goal in all of this was to get the major rule out. I believe that we have succeeded in doing that.

There is nothing about the proposal for a separate baseline being allowed to the foreign refiners that will impact on the supply of reformulated gasoline. If anything, if foreign refiners are allowed to qualify for separate baselines, that would only increase the available supply of reformulated gasoline when the program comes into effect January 1 of next year.

The other proposal that we are considering and that we have put out for public comment deals with the role of renewable fuels in the oxygenated portion of the reformulated gasoline program. As has been indicated, 2 percent of reformulated gasoline needs to be oxygenate, and within that market, EPA is proposing that 30 percent of the oxygenate be made from renewable fuels.

The purpose of this proposal was to separate the issue of renewable fuels from the basic reformulated gasoline proposal. Again, to get the basic requirements out but also to take comment on a long-standing policy of this and previous administrations that is designed to promote the use of renewable fuels in the domestic market.

Unlike prior administration proposals, the EPA's current proposal does not involve any waiver or any danger of compromise on the environmental benefits of the program. But it is designed to consider whether we have adequate legal authority as well as the technical basis to proceed with a program that would assure that renewables are able to compete in the market for the oxygenated fuels program.

I know you are going to have further questions on that, so I won't expand any further. But I would simply like to reiterate that the basic formula for reformulated gasoline has been known since 1991 when the "Reg Neg" was completed.

Refineries around this country and some foreign refineries, including those in Venezuela, have already made the necessary changes to their basic refining equipment that will allow them to make reformulated gasoline that meets the requirements in the Clean Air Act. The two issues that are under discussion here, the foreign refiner baseline and the renewable mandate in the oxygenated program, will not affect that basic issue.

It is our commitment that if we move forward with either of those proposals, we will do so in a way that maintains the forward momentum towards achieving full implementation of reformulated gasoline rule, as Ms. Tierney indicated, we have been working extensively with refiners, suppliers, transporters and others over the last months on this rule. I will be happy to provide you with more details about that later. But we are committed to assuring that this program gets implemented on time and in the manner that was intended.

Thank you very much.

[The prepared statement of Ms. Nichols follows:]

**TESTIMONY OF
MARY NICHOLS
ASSISTANT ADMINISTRATOR FOR AIR AND RADIATION
U.S. ENVIRONMENTAL PROTECTION AGENCY**

June 22, 1994

Thank you, Mr. Chairman, and members of the Subcommittee, for the opportunity to appear here this morning.

The efforts we will discuss today are, of course, part of the larger national effort to reduce air pollution, so the first thing I would like to do this morning is take a moment to bring you up to date on that national effort. My hope is to provide a context for the ongoing discussion about resources and priorities, as well as for the specific issues which we will address today.

To put it directly, the air quality news across America is good. This is particularly true at the state and local level where governments are putting in place the plans and rules necessary to meet the standards of the Act. While often the focus tends to be on conflicts or failures, the broad picture is that the vast majority of state implementation plan elements required under the Act are being completed by our state and local partners. EPA's continuing goal is to be supportive of our governmental counterparts as they work to implement the ground level aspects of the program. Almost without exception we are finding these partners to be competent, committed participants in the effort to achieve clean air.

Most importantly, the results of our joint efforts are clear. Let me give you some background. According to the latest air quality data for the most recent ten-year period:

- Every criteria pollutant for which we have national health standards is showing consistent reductions across America; as you know, we have national health standards for ozone, lead, nitrogen dioxide, carbon monoxide, and particulates.
- Monitoring indicates that 46 of 98 ozone nonattainment areas designated in 1991 are meeting the health standards for the last three years. 27 have already applied for redesignation to attainment.

- ▷ Monitoring also indicates that 23 of 42 carbon monoxide areas are showing air quality improvements in line with national health standards.

In addition:

- ▷ In March of this year, this Administration was able to finally break the pattern of conflict and litigation on air toxics by issuing a major rule regulating emissions from chemical plants, the largest source of air toxics.
- ▷ This rule will get close to 90 percent reductions from these plants - VOC reductions alone from the rule are the equivalent of removing 38 million cars (this represents about one-quarter of all U.S. cars) from the road - and it will provide targeted flexibility through averaging so that companies can manage unusually high cost situations.
- ▷ More than two dozen additional toxics standards will be issued over the next two years.
- ▷ Thanks to tough standards for vehicles and fuels, and excellent response from American industry, emissions from cars, trucks and buses continue to be reduced. These reductions are in spite of increases in the number of vehicles on the road, and the number of miles being travelled by each vehicle.
- ▷ In the area of mobile sources, we are now even beginning to get reductions from new designs in lawn mowers, leaf blowers and chain saws, and will soon be getting reductions from new designs in outboard motors.
- ▷ In short, following the renewed commitment demonstrated by the Clean Air Act Amendments, and the strong commitment of this Administration to implementation, we have completed rules that account for almost 90 percent of the 57 billion pounds of emissions reductions expected from the 1990 Amendments. Almost everyone is making a contribution to the national effort to clean the air. And most

importantly, those contributions are showing up in real reductions of air pollution.

Given this level of progress, my overriding national course, is to build on the progress and keep our commitment to clean air.

Unfortunately - and you know this well - much remains to be done in order to achieve our goal. Despite this progress across the country:

- More than 50 million Americans still live in areas which do not meet ambient health standards;
- Far too many people are still exposed to air toxics from large and small stationary sources, and from mobile sources;
- And as members of this Subcommittee well know, the people behind these statistics are real, and often, in today's health care system, too poor to be sick.
- Depletion of the stratospheric ozone layer, and the resulting increases in skin cancer and cataracts continues to challenge us globally;
- We continue to struggle with visibility issues in our national parks, even while sulfur dioxide reductions continue at an historic pace;
- While we have achieved significant reductions through technological improvements in the mobile source sector, the continued growth of vehicle miles traveled threatens to overwhelm our hard-won gains and undermine the investments we've made; and finally,
- Climate change resulting from greenhouse gas emissions remains as a threat which could overwhelm any other efforts on pollution control and environmental management.

To put it directly, we still have a long way to go. Despite real and tangible progress, we face tremendous challenges in order to make the necessary further emissions reductions. Certainly the record heat of last week, and the resulting air quality problems, confirms that we cannot relax our efforts. The remainder of my comments this morning will focus on the specifics of some of those efforts.

Reformulated Gasoline Program

As you know, the final reformulated gasoline regulations were promulgated by EPA on December 15, 1993. The reformulated gasoline program is one of the most important ozone and air toxics programs in the 1990 Clean Air Act Amendments. This one program will provide areas with about 30 percent of the emissions reductions required by 1996. The first phase of the program begins in January 1995, and will provide annual reductions of up to 140,000 tons of volatile organic compound (or VOC) emissions; the second phase will begin in January 2000 and will provide additional VOC reductions in excess of 40,000 tons per year and oxides of nitrogen (NOx) reductions in excess of 20,000 tons per year.

Companies in the fuels and related industries will have new growth opportunities as a result of the reformulated gasoline program, and the closely related oxygenated fuels program. In total, revenues are estimated to be higher on average by \$300 million to \$400 million per year during the 1992 to 2000 time period.

The reformulated gasoline program is required in the nine cities with the worst levels of ozone pollution. The Clean Air Act also provides that the governor of a state may opt into the reform program for any other ozone nonattainment area. Currently, the governors of all states in the Northeast United States, from Virginia through Maine, have opted into the reform program for the vast majority of ozone nonattainment areas in their states. In addition, the Governor of Wisconsin has opted in the ozone nonattainment portions of Wisconsin, and the Governors of Kentucky and Texas have opted in for some, but not all, ozone nonattainment areas in their states. We estimate that with at current level of opt-ins, approximately one-third of overall U.S. gasoline consumption will be reformulated in 1995.

Under this program, reformulated gasoline will result in reductions in motor vehicle emissions of ozone forming and toxics emissions. The levels of emissions reductions are in two phases: Phase I standards apply from 1995 through 1999, and the more stringent Phase II standards apply beginning in 2000. In addition, NOx emissions may not increase relative to 1990 levels under Phase I, and under

Phase II NOx emissions must be reduced. VOC and NOx emissions are regulated because of their role in the formation of ozone pollution, and toxics emissions are regulated because 50 percent of the cancer deaths from toxic air pollution are attributed to motor vehicle emissions.

This program also requires that each refiner and importer must keep non-reformulated gasoline (conventional gasoline) at least as clean as the gasoline produced or imported in 1990, to prevent refiners from "dumping" into conventional gasoline the dirty gasoline components remaining from the reformulated gasoline refining process. These are the "anti-dumping" requirements.

The anti-dumping standards, thus, are the quality of a refiner's gasoline in 1990, or the refiner's 1990 baseline. These 1990 baselines also form a portion of the standards for reformulated gasoline, but only during 1995 through 1997.

1990 Baselines and Imported Gasoline

EPA proposed a limited use of individual baselines under the reformulated gasoline standards as a result of the Regulatory Negotiation (Reg Neg) which EPA conducted as part of the reformulated gasoline rulemaking. At the time of the Reg Neg, in 1991, EPA could not adequately quantify the exact relationships between all gasoline parameters and the levels of VOC, toxics, and NOx emissions. But industry needed to know as much as possible in 1991 or 1992 about the standards that would apply for reformulated gasoline in 1995, in order to have the lead-time necessary to make refinery modifications. As a result, one of the key agreements from the Reg Neg was that EPA would propose the so-called "simple model" for certification of reformulated gasoline during 1995 through 1997. EPA adopted these simple model provisions in the Final Rule.

The "simple model" sets industry-wide standards for those parameters for which EPA could confidently predict the emissions effects of (for example, RVP, benzene and oxygen). There were other parameters, however, for which we knew

there was a likely emissions effect, but we did not know the magnitude of this effect; these parameters are sulfur, T-90 (which is a distillation parameter), and olefins. The simple model's approach for these three parameters is to hold each refiner and importer to its individual 1990 baseline level for these parameters. If each refiner's and importer's reformulated gasoline remains below their 1990 baseline levels for these parameters, then the U.S. average levels will remain constant at approximately 1990 levels. As a result, we would avoid any adverse emissions effects that would result from elevated levels of sulfur, T-90, and olefins.

Beginning in 1998, however, the "simple model" may no longer be used for certifying reformulated gasoline, and all refiners and importers must use the "complex model." The "complex model" is used to calculate the levels of VOC, toxics, and NOx emissions for gasoline formulations in relation to Clean Air Act baseline gasoline (which approximates 1990 U.S. average gasoline quality), and does not rely on individual baselines. The complex model is based on significant amounts of EPA and industry emissions test data collected after the regulatory negotiation to estimate the emissions effects of many gasoline parameters not included in the simple model.

The reformulated gasoline regulations include procedures for establishing baselines of 1990 gasoline quality that are different for domestic refiners versus importers. Domestic refiners use: 1) actual test data from gasoline produced in 1990; 2) test data from 1990 blendstocks, or 3) gasoline and/or blendstock test data from years subsequent to 1990 combined with an evaluation of the refinery configuration to predict 1990 gasoline quality.

The final rule, however, only allows importers to establish baselines using actual 1990 gasoline test data, or to default to the statutory baseline. The regulations do not let importers use the other baseline-setting methods available to domestic refiners, because they are not expected to be able to accurately predict the quality of gasoline imported in 1990. We expect that few, if any, importers will have adequate 1990 test data, however. As a result most, if not all, importers

will be assigned the "statutory baseline" or "Clean Air Act" baseline, a baseline that approximates the average quality of gasoline used in the United States in 1990.

All of my testimony to this point is background for the issue that is the concern of this Subcommittee, the baselines that apply to imported gasoline. Now, I would like to describe the events around what we call the foreign refinery baseline issue.

Our first proposal for reformulated gasoline, in July 1991, treated all refiners equally and did not draw any distinctions between domestic refiners and importers with regard to baselines. This is consistent with our goal for all regulations, that parties who are situated similarly be treated equally. At that time, we simply had not identified the issue of baselines for foreign refiners as presenting difficult questions.

One month later, in August 1991, the Regulatory Negotiation Agreement for reformulated gasoline was signed. This Agreement does not address baselines for imported gasoline one way or the other.

We revised our position on foreign refiner baselines in the subsequent April 1992 reformulated gasoline proposal, where we differentiated between domestic and foreign refiners. By the time of that proposal, we had identified the foreign refiner baseline issue, and were concerned about three possibilities if we allowed foreign refiners to establish baselines: 1) that foreign refiners would not have the data necessary to establish accurate baselines; 2) that EPA would be unable to enforce a program that relied on foreign refinery baselines; and 3) that there would be adverse environmental consequences from allowing individual foreign refiners to choose whether or not to establish an individual baseline, what we call the "gaming" issue.

The gaming concern was that those foreign refiners with "cleaner"-than-average gasoline, who could establish an individual baseline, would instead choose the statutory baseline, and then degrade their gasoline quality. Those with "dirtier"-than-average gasoline would likely choose to establish their own individual

baseline. The net effect of this selection process could be a degradation in the overall quality of imported gasoline.

In our April 1992 proposal, our solution to these concerns was to treat all foreign refiners as a class, by assigning the statutory baseline to all imported gasoline, unless the importer had actual test data on their 1990 gasoline.

In response to our 1992 proposal, we received comments from Petroleos de Venezuela (PDVSA), the Venezuelan national oil company. PDVSA complained that the baseline-setting approach we proposed for imported gasoline was unfair, in that domestic refiners would be able to use individual refinery baselines, while imported gasoline would be held to the statutory baseline. PDVSA said they would not be able to meet the olefin level in the statutory baseline until 1996 or 1997. This is true, according to PDVSA, even though the actual olefin levels of their gasoline in 1995 will be cleaner than their 1990 baseline levels as a result of refinery modifications they have made in order to produce gasoline to meet the reformulated gasoline standards. PDVSA also said that the EPA proposal for baseline-setting would violate the national treatment provisions of the General Agreement of Tariffs and Trade (GATT).

EPA officials held a series of meetings on the foreign refiner baseline issue during the Fall of 1992 and during 1993. These included meetings with PDVSA officials, with domestic refiners to hear their concerns, and with representatives of other agencies, primarily officials from the Office of the U.S. Trade Representative and the State Department, to better understand the GATT obligations.

Throughout these discussions, EPA's purpose was to identify the optimal solution to the foreign refiner baseline issue, that would treat domestic and foreign refiners as much alike as possible, and in accordance with the air quality objectives of the reformulated gasoline program.

Our February 1993 proposal invited comment on allowing individual baselines for foreign refiners with certain limitations. In September 1993, a fairly specific approach to regulating foreign refinery baselines was discussed with PDVSA that would have allowed limited use of foreign refinery baselines. While

this approach seemed to address our concerns and to be responsive to the concerns raised by PDVSA, we were not convinced it was the optimal solution from an environmental perspective. In late 1993, we were evaluating a number of additional options, some of which included modified "standards" for imported gasoline that would rely on "complex model" analyses to achieve the necessary air quality benefits.

Through these discussions and continuing into late 1993, we learned that all foreign refiners probably are not the same with regard to our concerns. In particular, we learned that PDVSA probably does have the data necessary to establish accurate individual baselines for their refineries. In addition, we concluded that we might be able to construct an enforcement program that works well with foreign refinery baselines. Lastly, we became less convinced that allowing foreign refiners the option of establishing individual baselines would result in adverse environmental consequences from gaming.

We were faced with a court-imposed deadline for issuing the reformulated gasoline final rule of December 15, 1993. As that date approached, we had not fully resolved the issues involving foreign refiner baselines. As a result, we promulgated the final rule with the baseline-setting approach that had been proposed in 1992. At the press conference announcing the final rule, however, I explained that EPA was still considering this issue, and would continue discussions with PDVSA.

PDVSA responded to this invitation, and EPA held meetings with them during December 1993. On January 14 of this year, however, the government of Venezuela requested formal GATT consultations on the reformulated gasoline final rule. EPA's discussions with the Venezuelan Government continued subsequent to their request for GATT consultations, and culminated in an agreement which addressed their GATT complaint on March 22, 1994.

Under this agreement with the Venezuelan Government, they temporarily agreed to hold off further GATT proceedings. In return, EPA agreed to propose for full public comment an approach for regulating imported gasoline that would allow

limited use of foreign refinery baselines. This proposal was signed by Administrator Browner on April 21, 1994 and published in the Federal Register on May 2, 1994. A public hearing on the proposal was held on May 23, 1994.

Under the proposal, importers would be allowed limited use of baselines established for a foreign refinery to demonstrate compliance with the reformulated gasoline standards for gasoline produced at the foreign refinery and imported for use in the United States. In effect, they would use the individual baseline the same way domestic refiners use it in the formulated gasoline program. Use of individual foreign refinery baselines would be limited in the following ways:

EPA would have to specifically approve the baseline for the foreign refinery. In order to obtain a baseline, the foreign refiner would have to submit a petition to EPA, which would include the same types of gasoline and blendstock testing data and refinery modeling analyses that domestic refiners must submit. In addition, a foreign refiner would have to support its baseline petition with a report prepared by an independent baseline auditor. As with domestic refiners, EPA would have to approve the auditor. One key aspect of a foreign refiner's baseline petition is that it would have to conclusively establish the quality and volume of gasoline that was used in the United States in 1990, and not just the refinery's overall gasoline quality in 1990.

- Individual foreign refinery baselines could be used by importers only to demonstrate compliance with reformulated gasoline standards, and could not be used to demonstrate compliance with anti-dumping standards. This limits its use to 3 parameters -- sulfur, olefins, and T-90.
- The total volume of imported gasoline that could be subject to the individual baseline for any foreign refinery would be limited each year to the refinery's 1990 baseline volume. This volume limit would ensure that the emissions impact of allowing an individual baseline for a foreign refiner's gasoline would be no worse beginning in 1995 than they were in 1990.

- The importer would be required to establish the refinery-of-origin for any imported gasoline that would be subject to an individual foreign refinery baseline, through gasoline inspections and audits conducted by independent inspectors and auditors at the foreign refinery. In addition, an annual audit by a U.S.-based CPA would be required. The auditor would be required to confirm that the gasoline loaded onto the ship was in fact produced at the foreign refinery in question.
- EPA inspectors would have to be given full access to the foreign refinery to conduct announced and unannounced inspections and audits related to the individual foreign refinery's baseline or any gasoline produced at the foreign refinery.

An additional constraint on use of individual baselines, that I discussed earlier, is that individual baselines are relevant for reformulated gasoline certification only during 1995 through 1997. Beginning in 1998 all compliance determinations for reformulated gasoline are in relation to the statutory baseline. This time constraint would also apply to importers using individual foreign refinery baselines.

Importers would be able to use an individual foreign refinery baseline only if all of these constraints and conditions are fully met. In the event any condition is not met with regard to any foreign refinery, importers would not be allowed to use that foreign refinery's baseline.

The proposal asks for public comments on the specifics of the approach I have just described and its underlying assumptions, and on other ways of resolving the foreign refiner baseline issue. In addition, we are especially interested in receiving comments on any potential environmental and public health effects. I want to assure you that I am strongly committed to full public participation in this rulemaking process and have not come to any conclusion as to what the final resolution should be.

I would now like to clear up some misimpressions about "dirty" Venezuelan gasoline. While it is true the Venezuelan gasoline is projected to be somewhat

dirtier in some respects in 1995 compared to statutory baseline gasoline, it is projected to be cleaner in others. If PDVSA were to keep its gasoline at 1990 levels for sulfur, olefins and T-90, the environmental impact would be an increase in NOx of about two tenths of one percent in the Northeast U.S. compared to the statutory baseline. If it cleans up its gasoline from its 1990 levels, as it anticipates, the environmental effect will be a slight increase - eight one-hundredths of one percent - in NOx in the Northeast U.S. as compared to the statutory baseline. This increase is in comparison to gasoline that meets the statutory baseline. If, however, PDVSA's 1995 gasoline is compared to their 1990 gasoline quality (as is done for domestic refiners), there is no increase in emissions due to sulfur, olefins and T-90 levels.

In addition, under the proposed approach PDVSA's gasoline is projected to be slightly cleaner than statutory gasoline in terms of VOC emissions, and much cleaner in terms of toxics emissions.

I would like to emphasize that the current proposal is a continuation of a process in which EPA has been engaged for at least the past two years: to identify the optimal solution to the issue of regulating imported gasoline under the reformulated gasoline program, taking into account the requirements of the Clean Air Act and the GATT, and the views of all who are regulated parties under the reformulated gasoline program or who would benefit from the air quality improvements resulting from the use of reformulated gasoline. In addition, the current proposal is just that: it proposes an option for addressing the foreign refinery baseline issue, and seeks public comment on this option. As noted earlier, we held a public hearing on the proposal on May 23. The public comment period is open through June 23. EPA is not obligated to promulgate a final rule that follows the proposal. EPA will promulgate an approach for regulating imported gasoline that differs from the December final rule only if we are convinced, following full public comment, that the new approach is better than the December rule's approach.

We are absolutely committed to, and have preserved the integrity of, EPA's rulemaking process and the opportunity for public participation. No substantive promises or agreements have been made that would require any particular outcome from the current proposal.

Renewable Oxygenates Proposal

Another issue on which you requested testimony today is EPA's proposal regarding the use of renewable oxygenates in the reformulated gasoline program.

Congress and the present and past Administrations have long supported the development and use of renewable fuels to reduce oil imports, save fossil energy, reduce global warming emissions, and develop domestic sources of fuel. This support has taken the form of a number of legislative and policy initiatives, including, for example, tax credits for renewable fuels and hundreds of millions of dollars through the Departments of Energy and Agriculture invested in research and development related to the production and commercialization of renewable fuels. As a result of these initiatives, the renewable fuels industry has grown and developed into a significant industry. In pursuing the renewables proposal, EPA's objective is to ensure that the reformulated gasoline program is consistent with this long-standing policy, and to obtain the benefits expected from such a policy.

Section 211(k)(1) of the Act directs EPA to establish reasonable requirements for reformulated gasoline, including regulations to achieve the greatest possible reduction in emissions of VOCs and toxics. When setting the reformulated gasoline emission performance standards, the Agency is directed to consider the cost of emission reductions, any non-air quality, and other air quality effects, related health and environmental impacts, and energy requirements. As mentioned previously, the Act stipulates certain compositional specifications, such as the two percent oxygen content requirement. To meet this requirement, oxygenates must be added to gasoline. The two most common oxygenates used today are MTBE and ethanol. MTBE is an ether derived primarily from methanol, which in turn is produced from natural gas. Ethanol is an alcohol produced

primarily from corn, though it can be produced from other feedstocks as well. A third oxygenate, ETBE, is an ether derived from ethanol.

The 1991 regulatory negotiation agreement formed the basis for EPA's proposed rule on reformulated gasoline issued in April 1992. Just before that proposal was announced, however, ethanol supporters raised concerns about the role of ethanol in reformulated gasoline.

Splash-blending any alcohol, whether it be ethanol or methanol, with gasoline raises the volatility of the blend, which leads to increased evaporative emissions from motor vehicles. This makes it difficult for such a blend to achieve the summertime VOC emission reduction requirements of reformulated gasoline. EPA has, however, always believed ethanol could play a significant role in reformulated gasoline, either directly or in the form of ETBE which does not increase gasoline volatility. Direct use of splash-blended ethanol in winter months would pose no difficulties, and ethanol blended with low-volatility blendstocks could be used in the summer months. Nonetheless, the ethanol industry and farm interests expressed concern that EPA's proposed program would effectively exclude ethanol from the reformulated gasoline market. They sought a summer volatility waiver for ethanol-based reformulated gasolines. Other signatories to the regulatory negotiation agreement such as the oil industry, methanol and ether producers, states, and environmental groups opposed such a waiver. At the request of ethanol and farm interests, the Agency held a public hearing to receive testimony on this and other issues in June of 1992 in Chicago.

In the fall of 1992, former President Bush announced a plan regarding the use of ethanol in the RFG program. This plan included the Environmental Protection Agency's proposal of a program to promote the use of ethanol and other renewable oxygenates in the reformulated gasoline program during the summer. This program would have granted ethanol blends the equivalent of a one psi volatility waiver during the summer by requiring other reformulated gasolines to have lower volatility in order to offset the volatility increase of the ethanol blends.

The Bush ethanol proposal was opposed by nearly all commenters. Ethanol interests, state regulators, environmental groups, and the oil industry objected to it on legal and environmental grounds and/or claimed that the program would be unworkable. Consequently, EPA decided not to promulgate the Bush ethanol program as part of the final rule for reformulated gasoline, which was signed by EPA Administrator Carol Browner in December of 1993.

In December 1993, the Agency also proposed a different strategy to help assure a role for renewable oxygenates, such as ethanol, in an environmentally friendly way. This proposal requires that 30 percent of the oxygen in reformulated gasoline come from renewable sources, such as ethanol or methanol not made from fossil fuels. To prevent detrimental environmental effects in the summer months, the proposal would not count toward the 30 percent requirement oxygenates such as ethanol which increase evaporative emissions when gasoline is commingled in-use. The proposal includes year-round, nationwide trading provisions to minimize cost and maximize flexibility.

The intent of the current renewable oxygenate proposal would be to assure that oxygenates, such as ethanol, and potentially MTBE or ETBE, produced from renewable resources, have a substantial share of the reformulated gasoline oxygenate market without sacrificing the environmental goals of the reformulated gasoline program. EPA believes that this program will assure the diversity of oxygenates in the marketplace. By assuring renewable oxygenates a place in the market, this program will help stimulate commercialization of more advanced technologies with even greater environmental and energy benefits. Expanding the use of renewable fuels made from domestic resources such as corn, grain, wood, and even garbage can help reformulated gasoline clean the air in our cities, lower long-term emissions of harmful greenhouse gases, and reduce the use of fossil fuels.

EPA believes it has statutory authority to promulgate such a program, which EPA believes will provide beneficial effects on fossil energy consumption and

greenhouse gas emissions. In the December proposal, EPA specifically asked for comments on the issues of statutory authority, fossil energy consumption, greenhouse gas emissions, and adequacy of ethanol supply, among other topics. The Agency also held a public hearing on January 14, 1994 to receive testimony regarding the renewable oxygenate proposal. The subsequent comment period closed on February 14, 1994. In excess of 12,000 comments were received on the proposal. The Agency is presently making final decisions and plans to announce a final decision on the proposal by the end of this month. As part of this process, we have coordinated with other Federal agencies, including the Departments of Energy, Agriculture, Transportation, and Treasury and the Office of Management and Budget.

I would also like to assure the Committee that EPA is working closely with fuel providers to assure the smooth implementation of the reformulated gasoline program as a whole. As part of this process, we are working with refiners of all sizes, pipeline operators, terminal operators, marketers, and oxygenate suppliers to address and resolve potential problems before they occur.

Transportation Conformity

In your written questions you asked about the inclusion of NO_x emissions reduction requirements in the final transportation conformity rule. The rule's NO_x provisions were part of the proposed conformity rule. Over thirty commenters specifically addressed the issue of what, if any, NO_x requirements should be imposed during the "interim" conformity period. Although the proposal did not suggest such requirements, the transportation and environmental communities were aware that they were an issue and provided comments on the desirability of the type of provisions which were eventually included in the final rule. Administrator Browner and DOT Secretary Pena, based on the public comments received on the proposal and further study of the Clean Air Act, determined that

the Act's conformity provisions require analysis of NOx emissions even before all air quality planning has been completed.

You also inquired about EPA rules regarding the granting of exemptions under Section 182(f) of the Clean Air Act from NOx provisions of the transportation conformity rule. Just last week, on June 17, 1994, EPA published a Federal Register notice simplifying this process for areas outside of the ozone transport region. This simplified process is based on the philosophy that if an area can demonstrate that it is already meeting the National Ambient Air Quality Standards, then additional NOx reductions are not necessary and should not be required. The process for obtaining a waiver has been simplified in several manners. First, areas are only required to submit air quality monitoring data showing attainment; no modeling or technical analysis will be necessary. Second, the data will be reviewed and exemptions will be granted by the EPA Regional Administrators, eliminating the time required for EPA Headquarters' review. Third, EPA Regional Offices will work with DOT and local officials to coordinate the exemption process with transportation planning and review so that delays in transportation planning schedules can be avoided.

Employee Commute Options

You asked in your questions about how the Employer Commute Options (ECO) program will operate. The ECO program requires large employers to offer incentives to encourage the use of something other than single occupant vehicles by their employees during commutes to work. While public transportation is one obvious option, it is not the only choice available to commuters. Employers can include a variety of strategies in their ECO plans that are not dependent on public transit. Other strategies that can be used are carpooling, telecommuting, bicycling, walking, flexible work schedules, employer-sponsored vanpools, and parking cash-out programs.

Thank you for the opportunity to discuss these matters with you. I would be happy to answer any questions you may have.

Mr. DINGELL. Thank you.

The Chair is going to do some housekeeping work here, and then we will recognize members for questions. So to get the housekeeping business.

Mr. Watson, in a June 17, 1994 letter to the subcommittee, concerning the classification of documents the State Department furnished to the subcommittee, Wendy R. Sherman, Assistant Secretary for Legislative Affairs wrote as follows:

"These documents were classified based on a contemporaneous judgment that disclosure of the information in the documents would have harmed the national security, including the foreign relations of the United States. In no case were the documents classified in order to prevent or delay the release of information that does not require protection in the interest of maintaining vital national security interests."

A number of these documents were furnished to the subcommittee and they are marked "confidential." I understand the information marked "confidential" requires protection so that our national security is not harmed.

Is this a correct statement?

Mr. WATSON. Yes, sir.

Mr. DINGELL. Very well.

Now, am I curious, one of the documents referred to the subcommittee discussions and it is marked "confidential," discusses ways agencies of the United States can make the Environmental Protection Agency, EPA, "make more rapid progress."

Another confidential document talks about, "Preventing EPA from acting alone." And then something about putting pressure on EPA.

Still another confidential document discusses various actions that need to be taken within the U.S. Government.

Late yesterday afternoon, the Department told the subcommittee that these portions are no longer classified.

Now I am pleased to hear that, but this does not sound like the kind of information that would, "Have harmed the national security, including the foreign relations of the United States." As was stated in Assistant Secretary Sherman's June 17, 1994 letter.

Mr. Watson, without belaboring this matter, I have the distinct feeling that some of these documents should not have been classified originally. I am pleased that over the last several days the Department has worked with our staff to declassify some documents and to make comments like these available for public disclosure.

However, these documents were developed some time ago, and it is my hope that some time in the future, the Department will examine the use of confidentiality and do more to comply with the requirements of law. I hope that you will convey those thoughts back to the Department for me, if you please.

Mr. WATSON. Well, I certainly will, Mr. Chairman.

I should point out, sir, that we have a couple of different grounds for classifying documentation, that are the national security questions, but there also is a question of the "deliberative process" grounds. In some cases, the classification was on that basis.

Mr. DINGELL. That was not stated to the committee.

Mr. WATSON. It is not stated in Ms. Sherman's letter, I am trying to clarify that, if I might, at this point. I also would be the first to admit that there are times when a classification is put on an entire document when certain portions of that document would not necessarily have to be classified, but because other portions of that document do require such classification, the overall document is classified.

I think, Mr. Chairman, we have been as responsive as we possibly could to your subcommittee in providing I believe every document that you have requested. And we have tried to declassify this on a very rapid basis, as much as we possibly could, and we are still working at that process. So I hope that the committee feels comfortable that it has gotten everything that we have in our possession which would be useful to your deliberations.

Mr. DINGELL. I do commend you for that, Mr. Watson, and you have been very cooperative, and we appreciate it. As you know, the Congress and the executive branch don't always see these matters through the same eyes or from the same viewpoint.

Again, we commend you, and we thank you and we will continue to work with you and hope that you will with us, to see to it that these kinds of problems that exist with regard to the matters before us, and also other matters, are resolved in an amicable way.

Thank you, Mr. Watson.

The Chair is now going to recognize the distinguished gentleman from California, the ranking minority member who has to be elsewhere shortly.

Mr. MOORHEAD. Thank you, Mr. Chairman. I appreciate your courtesy.

Ms. Nichols, I would like to ask a few questions about whether the oil refiners and marketers are going to be able to get reformulated gasoline into the service stations by January 1, I know many of them told me they don't have all the requirements they are going to have in making these fuels, and unless they are able to have them in the refineries by October 1, there is no way they can meet those deadlines.

Is there a chance that you will be able to get them all the information they will need by that time, and if they don't, what are you going to do on January 1 when it isn't available or at least in enough supply to meet the needs of the country?

Ms. NICHOLS. Mr. Moorhead, as I indicated before, the essential requirements for reformulated gasoline are the same as those that were in the "Reg Neg" which was completed in 1991, that was the December 15 rule promulgated, so since December, we have been working very actively with the industry to make sure they understand the basic requirements.

We have had a number of workshops that have dealt with issues about program implementation, including how compliance would be ascertained. We have also set up an electronic information system to answer questions on a very short-term basis, and we are working to process the various individual baseline submissions that we have received beginning on June 1.

We are issuing a question and answer format document in July, on July 1, that will respond to all—

Mr. MOORHEAD. That will be out by July 1?

Ms. NICHOLS. That will be out by July 1; it responds to questions that we asked the industry to submit to us by March 31, and they have responded with hundreds of questions. We are responding with detailed answers to all of their questions, and those will be out on July 1.

In addition to that, we have formed a task force to deal with supply and implementation issues. The first meeting of that task force is planned in July and it is going to be looking at how we can monitor the supply issues and progress toward implementation.

The task force itself will help us to identify information and tracking systems so that we can be monitoring the supply issues on a very intensive basis.

As the Department of Energy witness indicated, this is an area where the two agencies are working closely together. We are meeting on a regular basis. And we believe that once reformulated gasoline begins to actually be introduced into the market, which we expect is going to happen as early as September, that we will be able to monitor at that point how we are doing both on production and distribution.

We are very mindful of the fact that there have been bad experiences in the past when changes in fuel requirements have been introduced and certainly the experience with the diesel fuel, the desulfurized diesel fuel program a year or so ago was not a happy one. But we feel that the issues that led to problems with supply and prices in the case of that program, which was, fortunately, a short-lived set of problems, but nevertheless, we would like to avoid, primarily had to do with disasters that were truly unavoidable; primarily, the flooding in the Midwest which shut down barge traffic and also closed off a major pipeline, as well as with the fact that we have again defined what the areas where their program is needed are, and what the basic parameters are, with enough lead time so that refiners may be able to meet it.

Let me mention one other thing with respect to the proposal on renewable oxygenates in the program which I know has caused a great deal of concern and opposition on the part of the oil industry. It is our intent in going forward with that rulemaking, if we do proceed, to make sure that it is handled and enforced in such a manner as not to create any disruptions in supply.

We are looking very seriously at possibilities for phase-in, also for averaging across seasons, as well as allowing trading among our refiners in the implementation of the program, and any enforcement would be calculated on the basis of the preceding year of data, so that there will be additional time for any changes that would need to be made, but this is the situation that we are also watching very closely.

Mr. MOORHEAD. As you know, I come from a State that has very serious environmental problems, but we have developed a lot of expertise over the years in dealing with this. In fact, if you fly into LAX now, it is a whole lot cleaner than it was a number of years ago when we used to go in. They have done a great job with that problem, there are a lot of experts that have developed out there that can tell you probably more about emissions and emissions standards than there are in the national government.

The Air Resources—California Air Resources Board, Ms. Schaefer, wrote to EPA on February 14, in opposition to this ethanol requirement, and saying that it would—the proposal would increase VOC emissions by 120 tons a day, would also increase NO_x and PM10 emissions. It seems to me that Chairman Schaefer strongly disagrees with EPA's conclusion that the ethanol proposal does not harm the environment.

Have you considered how this proposal would affect our efforts in southern California to improve air quality to comply with the goals in the Clean Air Act?

Ms. NICHOLS. Yes, Mr. Moorhead, as you may know, I come from southern California myself, and, in fact, was once in Ms. Schaefer's position when we were dealing with some of the earlier aspects of reformulated gasoline in California. And I am very aware of the potential air quality problems with blending of alcohol fuels into conventional gasoline, which is why EPA, since I have been there, has been on track not to make any compromises in the environmental benefits of the program.

I believe that Ms. Schaefer's letter is based on a—I can't call it a "misunderstanding," because the proposal was open-ended, but it is based on an assumption that California would be required to use ethanol in the summer months. It would be EPA's intention, if we move forward with a proposal on use of renewable oxygenates, to make it very clear that the State of California has the authority and the ability not to allow use of splash-blended ethanol during the warm months when evaporation could cause increases in emission.

So I would like to assure you and anyone else in California that we would not proceed with the rule in any manner that would jeopardize California's reformulated gasoline program.

Mr. MOORHEAD. One of the problems is that most of the ethanol comes from the Midwest, and the supplies may not be available for our refineries in California. If this rule was promulgated across the country, it may take more ethanol than is available for a long period of time. So there are going to be serious problems in that way, especially in areas like California that are farther away. And I know that what the people tell me in air quality control out there, is that they will meet the goals that are set down, if you don't tell them exactly what portion of everything they have to put into the product, but they want the cleanest air they can get without having to go to one particular source of energy which may hurt their program rather than helping them.

Ms. NICHOLS. I understand and I support the objective. California does already use a considerable amount of ethanol as well as other renewable fuels in its gasoline supply.

Again, I would point out that the proposal which is still in the proposal stage, is for only 30 percent of that 2 percent of the gasoline, which is oxygenate to be from renewables and that in and of itself does not require ethanol, even though, obviously, at this time ethanol is the major source of renewable oxygenates.

There are opportunities, not only for ETBE in the program, but also for other renewable fuels made from waste products, cellulose, et cetera. And indeed, there is one firm in northern California which has already announced its plans to market renewable meth-

anol made from landfill gas, from gas that is recovered from landfills, which is a marvelous way to use that waste product which would otherwise be vented into the atmosphere. Which is exactly the kind of opportunities that we would hope to be encouraging if we were to move forward with the renewable oxygenate program.

Mr. MOORHEAD. I know that regardless of what the percentages are going to be, that they are very concerned about these restrictions that they will have about which particular type of additional fuel would be necessary. And I know they have worked on methanol a whole lot out in California, they have worked on all of these fuels, because they really want to cut down the emissions as far as they can.

But I hope that you consider California's situation so that these people who have become experts in this thing can use whatever method is necessary to meet the requirements of the law. And we do have a different situation than we have elsewhere, and I hope that you will pay special attention to Ms. Schaefer's letter and to the special problems we have in meeting those requirements. Because if we don't, if we can't do it here, we are going to have to meet those requirements in some other way that can be draconian. And that would very much hurt our overall economic conditions in California, which were already not too good.

And I thank the Chairman for giving me leeway.

Mr. DINGELL. The Chair recognizes—

Mr. MOORHEAD. I ask unanimous consent that additional questions can be answered in writing.

Mr. DINGELL. Without objection so ordered.

And, of course, the Chair will be cooperative with the gentleman in that matter.

The Chair is advising that the Chair has been recognized, including the gentleman from California, for 10 minutes because of the complexity of the questions, the fact that the questions and responses are going to take longer.

The Chair will now recognize the gentlewoman from Pennsylvania, Ms. Margolies-Mezvinsky.

Ms. MARGOLIES-MEZVINSKY. Thank you, Mr. Chair.

Ms. Nichols and Ms. Katzen, Exhibit 1 is an EPA document with a March 16 date on it. It is entitled, "Talking Points on PDVSA." It includes a memo of a phone call of March 16, 1994 from MMM to CMB.

I assume that I am the MMM and that Carol Browner is the CMB; is that correct?

Ms. KATZEN. I have not previously seen this document and would have no way of knowing, but I would assume you are the MMM.

Ms. NICHOLS. I didn't know any other MMM myself, but I also had not seen this document before.

Ms. MARGOLIES-MEZVINSKY. As summary, it also includes a summary of NEC, an NEC meeting on PDVSA and a paper with the heading of "Confidential—Federal Agency use only, not for outside distribution," which sets forth two options with pros and cons and a background information.

That information provides a rationale for the baseline approach in the final rule, which, among other things, demonstrates that Venezuela's gasoline produced in a 1990 baseline, would have as

much as 13.9 percent greater NO_x emissions than U.S. average RFG. And seems to show that foreign refiners would have to meet the importer's baseline.

But it then states, without explaining why: That in the case of PDVSA, however, EPA believes there is adequate data to set an individual baseline using methods 2 and 3.

And if you want me to go over methods 2 and 3, I have them here. Option 2, states that this action will result in increased NO_x emissions relative to the final rule for 1995-1997, but the magnitude of harm is limited because of the volume cap. It also states that Venezuela would agree to U.S. monitoring measurement procedures.

Absent a bilateral agreement with Venezuela, does the United States have jurisdiction pursuant to the Clean Air Act and the pending rule over the Venezuelan refineries, including purposes of enforcement?

Ms. NICHOLS. Let me try to answer the question as I understand it. The question relates to EPA's jurisdiction over foreign refiners and foreign gasoline?

Ms. MARGOLIES-MEZVINSKY. Let me repeat it for you. My question is, does the United States have jurisdiction pursuant to the Clean Air Act and the pending rule over the Venezuelan refineries, including for purposes of enforcement?

Ms. NICHOLS. Yes. I believe that this answer will cover the scope of the question. We don't believe that we can directly enforce U.S.-type limits on the operations of refiners that are not within the United States. But we do believe at this time that we have adequate ability to enforce any quality requirements with respect to gasoline that comes from abroad, based on our ability to monitor and enforce at the terminal, at the point of importation. So the proposal with respect to dealing with any foreign refiner that tries to tab a baseline under the baseline proposal would be that we would monitor the quality of the gasoline at the point of importation, that the importer would be liable for substantial penalties if the data—if the gasoline did not meet the requirements or if the foreign refiner did not submit to the audit requirements, or if the data that were submitted were not false or incorrect. So that the penalties would be applied against the company in the United States that was actually importing that foreign oil.

Ms. MARGOLIES-MEZVINSKY. Ms. Katzen?

Mr. DINGELL. If you would yield?

Ms. MARGOLIES-MEZVINSKY. Certainly.

Mr. DINGELL. We have got a little problem here, if you don't have a situation where you can require the production of all the information necessary to establish a baseline, you don't really have the ability to enforce the law or to define what the levels of pollution or how they would be reduced or to address either the question of dumping or the question of whether or not the reformulated fuel in fact provides the necessary level of clean up. Isn't that right?

Ms. NICHOLS. The question is if we don't have the ability to get the data, that presumes that we don't have the ability to get the data.

Mr. DINGELL. You don't have the ability to formulate a baseline which lets you define whether or not there is dumping going on,

or whether or not there is a situation in which they are in fact meeting the necessary level of clean up by producing a reformulated gasoline which provides the required level of clean up; isn't that so?

In other words, if you can't require the production of adequate information or if the refiner or the government or the importer can't produce the necessary data or information, your ability to enforce the law to achieve the necessary level of clean up cannot be accomplished; isn't that right?

Ms. NICHOLS. That is why we would not propose it until I was satisfied, based on my staff's analysis of the situation, that there was the ability to obtain adequate data to establish a baseline. And that's one of the issues that—

Mr. DINGELL. So what you are saying here is you have some doubt about the ability of EPA to procure the necessary data either with regard to establishing the parameters of dumping or the parameters of the clean up of the reformulated gasoline; isn't that what you are telling us?

Ms. NICHOLS. No, I believe what I was addressing was the question of whether we would be able to enforce the law against a foreign company if they—

Mr. DINGELL. Put it that way if you want, but that's what I am saying.

Ms. NICHOLS. But the petition process that the proposal lays out requires that the data be submitted. We would not grant a petition from any foreign refiner for its own baseline unless we were satisfied that the data was adequate. If it is adequate, then we would proceed to the enforcement stage.

Ms. KATZEN. That's correct.

Ms. MARGOLIES-MEZVINSKY. So, I would take it the answer is no, basically?

Ms. NICHOLS. No, to what? I'm sorry.

Ms. MARGOLIES-MEZVINSKY. I am sorry.

Ms. NICHOLS. Do we have enforcement ability?

I think we do have enforcement ability at the end of importation in the United States. I was just trying to draw a distinction that it does not indicate that we are going to be jetting into foreign countries and seizing oil at their refineries, but that once it comes on to our shores, we believe we cannot only get access to the gasoline itself but also to all necessary data and records, and we will not proceed to grant a petition to any refiner that wants to use its own baseline unless we are satisfied that we have that data. That's a sharper answer, perhaps, to the question.

Ms. MARGOLIES-MEZVINSKY. Do you wish to add anything?

Ms. KATZEN. No. I agree with that. It is not unusual to authorize an entity to do something, contingent upon that individual or company agreeing to supply whatever data is necessary or agreeing to waive whatever legal rights they may have to process, and other such vehicles for effective enforcement. And my understanding is that what EPA wanted to assure itself, before it put out a proposal, that it had enough enforcement tools to be meaningful, and those were the ones that were going to be presented for public comment.

Ms. MARGOLIES-MEZVINSKY. On March 14, 1994, a cable was sent to the U.S. Ambassador to Venezuela from Secretary of State War-

ren Christopher, which stated that the administration would propose that the existing final EPA regulation under the Clean Air Act that had been signed by Administrator Browner in December 1993, be revised to allow foreign refiners to establish their own baseline standards for RFG.

I guess, then, that the December ruling was not a final one. It is not a highly—is that not a highly unusual rulemaking process?

Ms. NICHOLS. If that question is addressed to me, I think the answer is that we clearly distinguished—we promulgated a rule on December 15 which did not allow for a separate ability for a foreign refiner to petition for its own baseline. It only made that privilege available to domestic refiners.

However, when we briefed the public and the press on this issue on December 16, we made it very clear that we were still considering the possibility of allowing for a foreign refiner baseline process to be established, discussions were continuing at that point with representatives of the Venezuelan Oil Company on that issue, and we wished to note that at the time we went forward. The rule was a final rule, but we were not satisfied with that particular aspect of it, that we had necessarily had the final answer on it.

It is a complex issue. We were not convinced that we had it right on that particular point. And subsequently, as you know, we decided to put out a proposal to allow the foreign refiners that baseline.

Ms. MARGOLIES-MEZVINSKY. It seems that the Department of State intervened in a process to bring about a change in a rule that EPA had already made final. My question is, how does the process come about? Was there pressure on the EPA from the Department of State to continue negotiations with Venezuela. Weren't these renewed negotiations brought to the attention of those Members of Congress who have shown interest in this issue from its inception?

Where did the communications break down?

My disappointment is that we thought we knew what was going on, and all of a sudden, we hear about these exchanges, these telecommunications, and despite the fact that we had been there from the beginning, pretty much up-front, asking you what was going on, all of a sudden, we found things—I mean, this is a summary of the NEC meeting on PDVSA that was that 14th meeting, and there are things in here that are very distressing.

Let me just read one of the little notes. It says: The U.S. ambassador will require the Venezuelans to withdraw their pending GATT panel request and not publicly announce the EPA change in position until the politics of this—in parentheses—the Hill, oil and others, can be worked in the United States. And then it goes on and on.

But—and there are many other things that are equally disappointing, to say the least. Can you just explain this to me in this case?

Ms. KATZEN. There are two issues that you have combined in your question, and I think both of them are very important ones to pursue. One, is the EPA decision-making process, and State's involvement in it, the involvement of other agencies, and the involvement of representatives from the White House or OMB, in that process.

The other issue is the extent to which there is adequate consultation between those who are involved in the first set of discussions and Members of Congress and others who have expressed an interest.

As to the first—the decision-making process—I would have to take issue with the notion that State intervened to make EPA change its mind. At the December 14 meeting, which I attended, it was very clear that EPA had already had extensive discussions with the Venezuelans, and that, as Ms. Nichols noted in her oral statement this morning, the EPA staff had reached a fairly high degree of confidence that they could work out some of the enforcement issues that had been plaguing them as to whether they could go forward. With her arrival at EPA and her additional questions, the staff was not prepared to say that they could do it on December 15. And yet, on December 15, a rule had to be issued because of the court-imposed deadline.

The State Department did not come in and make EPA change its mind. What EPA reported at that meeting was, “We have talked to them. We have issues. We are working those issues. We can’t get it done in time. We want to continue to have those discussions.” That was EPA speaking, not the State Department speaking.

It was EPA who said if there is a way of solving these enforcement and monitoring issues, then we would have the optimal solution. We don’t know that yet, we need more time.

The problem was, if you are issuing a final rule, how do you give yourself more time? And there the EPA used the good offices of the State Department to communicate a message to the Venezuelans, that even though this is called a “final rule” and it is final with respect to the important aspects of the ingredients of the RFG—I think this was the other point that Ms. Nichols was making earlier in response to Mr. Moorhead—it was very important to let it be known that very early what that portion of the rule would be, and that that portion is to be final, so that people could get on with their plans and comply by the January 1, 1995 date.

The other issue—enforcement—was a question that they could not resolve in time, and when the rule was announced on December 15, the press report specifically noted that conversations would continue with Venezuela on the foreign refiners baseline issue so that it was not a surprise.

Now, that was the decision-making process in which I think State did not act in an untoward fashion.

As to the consultations that Members of Congress had or did not have, I am not privy to those, and others may wish to address that, but I wanted to just talk about the rulemaking process as I knew it.

Ms. MARGOLIES-MEZVINSKY. Mr. Watson.

Mr. WATSON. Thank you.

Might I just add one comment on that?

After the December 14 meeting, which I attended with Joan Spero, the group asked me to contact the Minister of Energy of Venezuela and convey to him this message, but I was not to do that until I had been advised by EPA that Carol Browner had actually issued the rule. And once that happened, I tracked down the minister and conveyed the message that was agreed on in that meet-

ing, and that message was to tell him the rule had to be issued. And it was issued, and this is what it said.

And second, that the door was open for further discussions by the Venezuelan government with EPA. But beginning with some of the proposals that the Venezuelans had laid on the table, but by no means accepting those, there was going to have to be a further discussion between EPA and Venezuela on these points, and that it was in Venezuela's interests to move quickly and reengage EPA, too, on these discussions so it could resolve this issue on a bilateral manner. And I was hoping by this procedure—we were hoping by this procedure to persuade them from going the GATT route.

Ms. MARGOLIES-MEZVINSKY. Mr. Chairman—

Mr. DINGELL. The time of the gentlewoman has expired.

Let me just pursue one point here with you, Ms. Katzen and Mr. Watson.

The memorandum that has been discussed says as follows: "This would have the advantages of preventing the EPA from going it alone without the involvement of other interested agencies. It would also create leverage on EPA to reach an equitable agreement."

Now, we have a situation where EPA is the Agency that is supposed to issue the rules. EPA is the Agency that is supposed to see to it that the law is carried out, to interpret the law and to issue the rule.

I am trying to understand what this language means. This sounds very much to me as if this memorandum which is—has a heading "the end game," leaves us now in a position where the other agencies are trying to press EPA towards a particular result which may or may not conform with requirements of law.

Now, what comment do you have on that?

This is your language in the memo. This is not my language. I didn't have anything to do with it. You folks did, I did not.

Mr. WATSON. I believe, Mr. Chairman, that nobody here had anything to do with that language but me. Not the other panelist.

Mr. DINGELL. Since this is your language, you tell us. Are you trying to press the other agencies into pressing EPA to arrive at a particular conclusion, and is this conclusion to conform with the law, or is it to conform with something else?

Mr. WATSON. I believe, Mr. Chairman, that you are referring to a memorandum that was internal to the State Department.

Mr. DINGELL. That's what Ms. Mezvinsky is referring to, and that's why I am pressing you.

Mr. WATSON. And sent to Joan Spero, and this is a memorandum that is dated in February long after the December 14 meeting.

Mr. DINGELL. Does it refer to the December 14 meeting, or does it not?

Mr. WATSON. Does not.

Mr. DINGELL. Is it to accomplish the purposes of the December 14 meeting?

Mr. WATSON. No, it is basically talking about what has happened since that time following the Venezuelan government's taking this issue to the GATT. And which became an issue then that immediately involved other agencies as well as EPA. It was now a GATT issue.

Mr. DINGELL. You are saying here it would also create leverage on EPA to reach an equitable agreement. You say—you, in that memorandum you say this would have the advantage of preventing the EPA from going it alone without the involvement of other interested agencies.

Now, EPA is supposed to make the rules. I am trying to understand what you are trying to accomplish here in this action, particularly referring to imposing leverage on EPA and preventing EPA from going it alone in connection with the rulemaking.

Mr. WATSON. Not at all, sir. The EPA, of course, makes the rule. There is absolutely no challenge to that. We can't—

Mr. DINGELL. The Congress so decided.

Mr. WATSON. Right, I certainly wouldn't be challenging that. The point was, however, throughout this entire issue, back in early 1992 through 1993 into 1994, the State Department was concerned that national treatment be accorded to foreign suppliers like Venezuela, and there would not be this discrimination against a foreign supplier. And this is the kind of issue that we were concerned about when we brought the EPA's attention and other people's attention from the outset.

We were trying, as the sentence in my memorandum to Ms. Spero says, to reach an equitable agreement. That's all we were after. We were never, ever, trying to, nor would we think about trying to influence EPA in the substance of a technical nature of their decision. All we wanted was an equitable agreement, and that's what my internal memo to Joan indicates.

Mr. DINGELL. Maybe you want to explain, Mr. Watson, what the word "leverage" means. You used the word "leverage" which I think is an admirable word. It is one which I appreciate. It is one that means you are going to move somebody in a particular direction—

Mr. WATSON. I think, sir, you are now talking about a second memo, that was a memo—

Mr. DINGELL [continuing]. said if he had a lever large enough, he could move the moon or the earth, if you had the proper fulcrum. Leverage is powerful word and it indicates a powerful action.

Mr. WATSON. Mr. Chairman, I think "leverage" appeared in a memorandum from one of my staff members to me.

Mr. DINGELL. It was your word.

Mr. WATSON. It was in our Bureau, the State Department, in a memorandum to me that that word was used. The point was it seemed to us that the EPA was working to define the rule and decide where it was going to go next, and discussing this with the Venezuelans, and that we—our only interest was to make sure that there was an equitable arrangement worked out that did not get us into a lot of trouble in a whole variety of other areas, including the GATT front, by discriminating against a foreign supplier. That was the only point that we were working on in this regard.

And you might argue that my remarks to my superior, Joan Spero, in this were perhaps a little overly energetic in this regard. But it was not something that was done in terms of dealing directly with EPA or any other agency. It was a memorandum internally from me to Joan Spero trying to describe the situation as we saw it at the time when Venezuela went to request a GATT panel,

which is something that we had hoped to convince them not to do earlier on.

Mr. DINGELL. The gentlewoman from Pennsylvania just briefly.

Ms. MARGOLIES-MEZVINSKY. I just—could someone answer the question, the second part of the question, that is, why weren't these renewed negotiations brought to the attention of Members of Congress who had expressed interest continually in this problem?

Ms. NICHOLS. I believe that in our December 16 report to Congress—report to the public, I'm sorry, on the December 15 rulemaking, which issue was also the subject of a briefing, although I can't provide you—I would have to go back and check to find out when this occurred. We did indicate that we had said that we were open to and were expecting to have continuing discussions on the issue of the baseline.

I think the only thing that is not perhaps normal in this situation is that under other circumstances we would have not finalized the rulemaking on December 15 with this issue left unresolved. We felt we had to resolve it one way or another on December 15, in order to meet the court-ordered deadline and to get the basic requirements for the reformulated gasoline out. And that is what we did.

But we did indicate in public that we had not reached a final conclusion on the issue of whether we would consider a foreign baseline and that we would be having further discussions and thoughts on that topic.

I think that the failure of communications when we had crystallized in that view, is an unfortunate one. Certainly, it was unfortunate that Members of Congress and others learned of this issue from reading about it in the press, and that was not ever anything that was EPA's intent. Certainly, I don't believe that was the way it should have been.

I—for my part, and for what I believe is EPA's part in this matter, it had been our intention to notify a number of interested Members of Congress, as well as others, when we had reached the conclusion that we were ready to go out with a proposal that would consider allowing the foreign suppliers to petition for their own baseline. But we had not done so until we were satisfied that this was—that this was a decision which would result in giving us some time to work on the problem. And we were as surprised as you were when we found out that this had reached the—

Ms. MARGOLIES-MEZVINSKY. We were extremely surprised. I am surprised that you are making final rulings without making final conclusions.

I know my time is expired.

Mr. Chairman, I would like to have several documents placed in the record in their appropriate place on the record.

Mr. DINGELL. Without objection, so ordered.

[The information follows:]

3/11/82
Norm

Talking Points on PDVSA

✓ For Margolies - MEZVINSKY
call 3. 1

- The final reformulated gasoline regulations signed December 15 hold foreign refiners to the Clean Air Act baseline and does not allow them to use individual baselines as Venezuela requested.
- Venezuela is seriously pursuing a GATT challenge. The trade apparatus in the Administration feels that the GATT defense is weak because the RFG rule distinguishes between foreign and domestic producers. The environmental case for such a distinction is not strong because some domestic refiners may be dirtier in some parameters than the Venezuelans. If GATT finds discrimination, then EPA would be forced to reopen the RFG rule to give Venezuela everything including concessions on issues which they might otherwise not seriously pursue.
- The Administration is evaluating its options to avoid a GATT loss, including examining possibilities of compromises with Venezuela prior to the next step in the GATT challenge which is coming up soon.

AMB gave her Nancy Suttley's name
as a contact.

Therzules - Therzinsky

From: Cheryl Holmstrom (CHOLMSTR)
 To: ~~WOLFORD~~ CMB
 Date: Wednesday, March 16, 1994 10:06 am
 Subject: MMM's call

MMM called for CMB this am and I took the call. The following are my notes.

re: a Venezuelan company, PDVSA

Last Fall 18 members signed on to a letter to convince EPA to continue rulemaking. On Monday, USTR/State/OMB/EPA? had a meeting unbeknownst to the Hill to consider reopening the rulemaking and consider a modified baseline for PDVSA - i.e. the quality of oil would go down.

MMM has talked w/Panetta, Waxman and others about this. Says there would be many unhappy members.

She's also unhappy that this happened w/o them being told.

Nancy Sutley put together talking pts on PDVSA.
 CMB returned call at 10:00 AM. LM.

Thanks for your help. We're all set now.

CC: NSUTLEY

STAFF CONTACT MARY SMITH
233-9000

Summary of NEC meeting on PDVSA

I. Major players at meeting

- OMB - Sally Katzen, chaired meeting for Bo Cutter
- State - Joan Spero
- USTR - Charlene Barshefsky
- EPA - Mary Nichols

Others from EPA, DOE, State, USTR, NEC and the NSC were present.

II. Decision - Go with option 2 on attached briefing paper with conditions.

A. Option 2 in summary: EPA will change the RFG final rule issued last December to provide for the use of verifiable individual baselines by foreign refiners in RFG only and limited by their 1990 volume. Foreign refiners will have to use the statutory baseline for RFG volume in excess of 1990 and for all conventional gasoline.

B. Conditions on selection of option 2 (as laid out by Sally Katzen):

1. EPA lawyers will consult with USTR and State lawyers to ensure that we cannot adopt option 2 without a rule change. (note to CB: a new rule is clearly needed).

2. The US ambassador will require the Venezuelans to withdraw their pending GATT panel request and not publically announce the EPA change in position until the politics of this (Hill, oil and others) can be worked in US. (note to CB: the US ambassador is scheduled to meet with the Venezuelans at 5 pm, the 15th).

3. EPA will expedite the rulemaking to make this change and an NPRM will be signed by the Administrator by April 21.

4. After the US ambassador talks to the Venezuelans, the Hill will be worked as to why we are doing this. (note to CB: We will be saying that USTR had made it clear that we will lose the GATT challenge resulting if we do settle with the Venezuelans. This will result in a rule change that will allow individual foreign baseline use for all imported RFG and conventional gasoline. For PDVSA gasoline, this means more NOx in the Northeast.)

5. There will be an outreach to oil lead by DOE with the assistance of State and USTR. EPA is to stay out of this process.

6. Venezuela will get no enforcement breaks in the revised rule, i.e., enforcement, monitoring and documentation must be equivalent to the domestics.

Sally also made it clear that there is to be no press leaks until we have worked this issue with the various constituency groups.

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ISSUE

Whether to modify the provisions of the EPA December 15, 1993 reformulated gasoline (RFG) regulations that determine how to establish baselines for imported RFG in order to address the GATT complaint of the Government of Venezuela that the regulation treats foreign refiners unfairly compared to domestic refiners, in light of the adverse consequences if the GATT challenge is lost that include compensation/retaliation, jeopardy to U.S.-Venezuelan trade relations, and portrayal of GATT as anti-environmental; and in light of adverse air quality consequences that would result from the modification Venezuela seeks and opposition by domestic refiners and others.

BACKGROUND

EPA issued final regulations on December 15, 1993, implementing the RFG program required by the 1990 Clean Air Act (CAA) Amendments. The RFG program begins on January 1, 1995. See, Supplemental Background document for more detail. At the time that EPA issued the final RFG regulations, the Administration agreed to continue to explore with Venezuela possible modifications to the rule to resolve their concerns.

The government of Venezuela initiated formal consultations under General Agreement on Tariffs and Trade (GATT) Article XXII concerning the baseline-setting scheme required by the RFG program, alleging that the scheme discriminates against foreign refiners. On February 11, 1994, U.S. representatives (USTR, State, and EPA) met with Venezuelan representatives to commence formal GATT consultations.

Venezuela requested that the parties continue Article XXII consultations, with a further meeting held prior to March 14. Resolution of this issue before the second consultation (if it can be resolved) is important to forestall escalation of the Venezuelan objections into a formal GATT dispute settlement proceeding. (Under GATT rules, if the dispute is not resolved by March 14, Venezuela may request the formation of a dispute settlement panel to review its complaint.)

The Venezuelan GATT challenge presents difficult issues, and loss of the GATT challenge has significant implications re. compensation/retaliation and U.S.-Venezuelan relations and would also make it more difficult to achieve the Administration's post-Uruguay Round goals on trade and environment issues in the GATT. See, Supplemental Background document for more detail.

EPA has held numerous discussions with representatives of Petroleos de Venezuela (PDVSA) (the Venezuela national oil company). A number of options for

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settling this dispute were considered, and following is a pro/con discussion of the best of these options versus retaining the approach in the final EPA rule. Although Option 2 discussed below is not Venezuela's preferred approach, we believe Venezuela will accept it.

OPTIONS

1. Retain the Final RFG Rule.

Individual baselines for domestic refiners; Clean Air Act (CAA) statutory baseline for importers (and therefore, for foreign refiners).

Pros

-- Final Rule approach is supported by:

American Petroleum Institute (API), because of market-share threat to some members, and inequity if foreign refiners are given a "break" (foreigners are not subject to U.S. environmental laws or anti-dumping for non-US market gasoline).

Strong support by Sun & Mobil, who compete with PDVSA in the Northeast gasoline market. (If given an individual baseline, PDVSA intends to double its share of this market in 1995).

NESCAUM (Northeast states air consortium) because of increased levels of NOx pollution (vs final rule) if PDVSA gets individual baselines.

18 Senators and 31 Representatives, who wrote letters to EPA stating that individual baselines should not be allowed for foreign refiners (See Supplemental Background Information for list of Members' names).

-- Environmental Community has not weighed in on this issue, but it is expected that they would support the final rule for air quality reasons.

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Cons

- Venezuela is almost certain to pursue its challenge to the EPA rule.
Loss of the GATT challenge could have significant implications:
 - Would undermine U.S. effectiveness in convincing new Venezuelan Government to further open its economy to U.S. goods, services, and investment, especially in the oil sector.
 - Could jeopardize ability to achieve important Administration trade/environmental objectives in the GATT and put anti-environmental focus on GATT when Uruguay Round is up for vote in Congress (by citing environmental statute as protectionist measure).
 - May provoke Venezuela to initiate other environment-related trade complaints, such as complaints over U.S. embargo of tuna with respect to dolphin protection, and threat of embargo on shrimp with respect to protection for sea turtles.
 - RFG Rule would have to be modified, to allow individual baselines for imported gasoline for both RFG and non-RFG (Anti-Dumping).
 - If the RFG Rule is not modified within a reasonable time after an adverse GATT panel decision:
 - Up to \$150 million per year (3 year maximum) in compensation/retaliation, which could result in loss of U.S. export-supported jobs.
- 5 Representatives wrote letters to EPA stating that individual baselines should be allowed for foreign refiners (See Supplemental Background Information for list of Members' names).

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2. Foreign Refiner Individual Baselines with Volume Cap

A compromise position that provides partial, not full, use of individual baselines by foreign refiners. Venezuela's GATT challenge seeks full use of individual baselines, but they agreed to this approach in September 1993.

- A foreign refiner's individual baseline would be used for RFG only (not Anti-Dumping), would be time-limited to 1995 th 1997, and would be volume-limited to the foreign refiner's 1990 U.S. market gasoline volume.
- In return, Venezuela would agree to U.S. monitoring/measurement procedures.

Pros

- Venezuela would accept option; avoids the GATT challenge and possible adverse consequences of GATT loss which could include compensation/retaliation, undermine opening of Venezuelan economy, jeopardize GATT environmental objectives, and provoke Venezuelan retaliation (See details listed in Cons of Option 1).
- A few groups (independent gasoline marketers in Northeast) support the Venezuelan position, because the price of imported gasoline represents a ceiling on the price that can be charged by U.S. refiners.
- Supported by 5 Representatives.

Cons

- Results in increased NOx emissions relative to the Final Rule for 1995 - 1997, but magnitude of harm is limited because of the volume cap.
- Will be opposed immediately and during rulemaking by domestic refiners, Northeastern air consortium, and 44 Congressmen. (See details listed in Pros of Option 1).

EPA REFORMULATED GASOLINE, FOREIGN REFINER BASELINE ISSUE
SUPPLEMENTAL BACKGROUND INFORMATIONThe Reformulated Gasoline (RFG) Requirements

Beginning on January 1, 1995, gasoline used in certain ozone nonattainment areas (including most of the Northeast US) must be reformulated, and the non-reformulated gasoline used in the balance of the country must meet anti-dumping (AD) standards. Congress included RFG in the 1990 Clean Air Act Amendments to reduce motor vehicle emissions of VOC, NO_x, and toxics. VOC and NO_x are regulated because they cause ozone. Toxics are regulated because 50% of the cancer deaths from toxic air pollution are attributed to motor vehicle emissions.

From January 1, 1995 to January 1, 1998, refiners and importers have two options for certifying gasoline as RFG: the "Simple Model," and "early use Complex Model." Beginning in 1998 all RFG must be certified using the "Complex Model." Under the Simple Model, RFG must meet standards for oxygen, benzene, and RVP, and on an annual average basis 1990 baseline levels for sulfur, T-90, and olefins. The Complex Model uses the physical and chemical properties of a particular gasoline, as applied to the Complex Model (mathematical equations), to predict the levels of VOC, NO_x, and toxics motor vehicle emissions from the gasoline. Under the Complex Model beginning in 1998, all RFG must achieve VOC, NO_x, and toxics emissions reductions relative to 1990 US average gasoline quality specified in the Clean Air Act (the "statutory baseline"). Therefore, as of January 1, 1998 a refiner's/importer's individual baseline has no relevance to RFG certification.

Non-RFG gasoline must meet anti-dumping standards relative to refiner/importer baselines beginning in 1995 and continuing thereafter.

The final RFG rule requires domestic refiners to use individual baselines representing each refiner's 1990 gasoline quality. A domestic refiner must calculate its individual baseline using, in hierarchical order: Method 1 (1990 gasoline composition data), Method 2 (1990 blendstock composition data & refinery modeling), or Method 3 (post-1990 gasoline composition & refinery modeling).

The final rule requires importers to calculate individual baselines using Method 1 data if available, and if not to use the statutory baseline.¹ EPA anticipates that few if any importers will have Method 1 data and, therefore, most/all importers will use the statutory baseline. Gasoline produced by foreign

¹ The only exception to this is where the importer also operates a foreign refinery, and at least 75% of that foreign refinery's 1990 output went to the U.S. market. In that case, the importer must follow the same procedure as domestic refiners. EPA believes that only importers of gasoline produced at certain Canadian refineries will meet this 75% test.

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refiners must, on average, meet the importer's baseline, and foreign refiners may not establish individual baselines.

Rationale for the Baseline Approach in the Final Rule

EPA considered other baseline-setting approaches for imported gasoline that would allow use of individual baselines by importers or by foreign refiners directly. These other approaches were rejected because of adverse air quality consequences, technical infeasibility, and enforcement concerns.

The quality of Venezuela's 1990 gasoline that was imported into the U.S. was "dirtier" than 1990 U.S. average gasoline, so that RFG produced to this baseline would result in adverse air quality impacts relative to U.S. average gasoline. Venezuela's 1990 gasoline had 644 ppm sulfur and 22% olefins, as compared to 1990 U.S. averages for these parameters of 338 ppm and 10.6%, respectively. In consequence, RFG produced to Venezuela's 1990 baseline would have as much as 13.9% greater NOx emissions than U.S. average RFG. NOx emissions are of particular concern in the Northeast U.S. (Venezuela's primary market) because of the key role NOx plays in ozone formation there. Venezuelan gasoline represents 1/2% of gasoline consumption in PADD I (PADD I is comprised of the U.S. east coast, plus Pennsylvania), but Venezuelan gasoline is consumed primarily in the Middle Atlantic-New England areas and, hence, its impact in these areas is more significant.

Setting individual baselines for importers using Methods 2 and 3 is not possible for technical reasons. Method 2 uses blendstock data and refinery modeling, but in the case of most importers there is no relationship between the gasoline imported by an importer and any imported blendstock. Method 3 relies on post-1990 gasoline data and refinery modeling, but for most importers the gasoline refineries-of-origin in 1990 were different than the refineries-of-origin post-1990.

Individual baselines cannot be established for most foreign refiners using Methods 2 and 3 also for technical reasons. The refinery modeling aspects of Methods 2 and 3 predict overall refinery gasoline quality. As a result, these Methods are not appropriate for predicting the quality of refinery's gasoline that went to the U.S. in 1990, where that portion constitutes only a fraction of the refinery's overall 1990 gasoline production. In the case of PDVSA, however, EPA believes there is adequate data to set an individual baseline using Methods 2 and 3.

If foreign refiners were given optional use of Methods 2 and 3, each refiner could select the least cost (most polluting) option and thereby "game" the baseline-setting process.

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Even if individual baselines could properly be set for foreign refiners, use of these individual baselines would require EPA to establish the specific foreign refinery-of-origin for imported gasoline in order to apply the baselines to the proper imported gasoline. As a result of fungible mixing that occurs in the gasoline market worldwide, EPA is concerned it would be unable to establish foreign refineries-of-origin with certainty for most imported gasoline. EPA also is concerned that, under an individual foreign refinery baseline approach, it would be unable to properly carry out at most foreign refineries the enforcement procedures that apply to domestic refiners, including: baseline setting audits; reporting and record keeping; independent laboratory sampling and testing; unannounced EPA compliance inspections; and the imposition of civil penalties, injunctive relief, and criminal sanctions.

Under the procedures intended for Option 2 (above) and in the case of gasoline imported from Venezuela, however, EPA believes it would be able to adequately establish the refinery-of-origin and extract from PDVSA and Venezuela an agreement which would provide for adequate enforcement procedures.

Venezuelan Concern: Timing of Options

The 1990 baseline sulfur level of Venezuelan gasoline (644 ppm) exceeds the statutory baseline sulfur level (338 ppm). In 1995 Venezuela will be unable to produce gasoline under the Simple Model that meets the statutory sulfur baseline level and achieve its goal of doubling its 1990 U.S. market share. Under the Final Rule Venezuela probably will be constrained to its 1990 U.S. market volume in 1995.

Venezuela also is concerned that the treatment of foreign refiners in the Final RFG Rule ignores the fact that Venezuela has been a reliable source of oil to the U.S., including Venezuela's non-participation in the Arab oil embargo and Venezuela's increased oil production at the request of the U.S. after Iraq's invasion of Kuwait in August 1990.

Timing is critical to Venezuela. Refinery modifications will enable them to meet the statutory sulfur baseline by mid-1996. Moreover, the RFG-baseline issue goes away in 1998, when individual baselines have no application to RFG. (However, if Venezuela escalates its objections to a formal GATT dispute settlement proceeding, it would probably press for use of individual baselines for anti-dumping, for which individual baselines continue to apply beyond 1998.)

Therefore, January 1995 through mid-1996 is the period of concern for Venezuela. To be accepted by Venezuela, Option 2 would have to be effective in

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advance of the RFG rule's January 1995 effective date. Options 2 would require RFG rule changes through rulemaking, which will take a minimum of 6 months.

Venezuela's GATT Challenge

On January 14 the Government of Venezuela formally requested GATT Article XXII Consultations on the RFG rule. On February 11, USTR, State, and EPA received a Venezuelan delegation and held the first round of GATT consultations. At that meeting, Venezuela alleged the U.S. RFG rule violates U.S. GATT obligations and that they nullify and impair Venezuela's rights under GATT. Venezuela specifically asserted that the gasoline rule is inconsistent with the GATT principal of national treatment, that it denies Venezuela most-favored nation treatment, and that it constitutes impermissible restriction on imports under GATT. The U.S. responded that it does not accept Venezuela's GATT interpretations. However, the U.S. expressed a willingness to examine other potential options for regulating RFG so long as they are consistent with environmental aims of the Clean Air Act.

At the end of the February 11 consultations, Venezuela requested that a second round be held in Caracas prior to March 14. Venezuela could request a GATT panel to investigate the case after that date. A U.S. refusal to meet for a second time might encourage Venezuela to press for a GATT panel. However, agreeing to meet without anything to offer Venezuela would be counter-productive.

Consequences of Loss of GATT Challenge

If a country's measure is found to be inconsistent with the country's obligations under GATT as a result of a GATT dispute settlement proceedings, then the country is obligated to correct the offending measure. If the country fails to correct the measure in a reasonable period of time, the country is to provide compensation to the challenging country. Compensation consists of providing to the challenging country additional trade benefits (e.g., tariff cuts or quota increases) roughly equivalent to the impact of the offending measure on that country's trade. The U.S. currently lacks general authority to provide compensation.

If the defending country fails to correct the measure within a reasonable period of time and fails to provide compensation, then the challenging country may withdraw equivalent trade concessions ("retaliate"). The challenging country may choose to restrict trade in goods unrelated to the defending country's measure, and in fact is likely to target trade in goods that will have a significant economic impact on the defending country.

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The Government of Venezuela claims that under the final rule, it will lose \$150 million a year in gasoline sales over the period 1995 through 1997. The actual amount would depend on the damages that occur after a GATT decision is issued and a reasonable time to correct the measure has expired. Of the \$4.4 billion in 1993 U.S. trade with Venezuela, Venezuela could select from among the following major U.S. exports: auto parts (approximately \$300 million); wheat (\$120.5 million); corn (\$88 million); and soybean oilcakes (\$95 million) and soybeans (\$35.6 million).

Venezuela is our second largest market in Latin America. Venezuelan GATT retaliation in tariffs or quotas would cost American export-supported jobs which would not all return because U.S. computer, auto-parts, and machinery exporters would likely lose market share to their European and Japanese competitors.

On a broader scale, should GATT decide, justly or unjustly, that an environmental statute was being used as protectionism, U.S. efforts to strengthen GATT environmental provisions could be damaged. Although, U.S. environmental groups may portray settlement of this GATT issue as backing down from an environmental measure in the face of GATT concerns.

Maintaining the final RFG rule could undercut U.S. credibility and effectiveness in pushing Venezuela to open its economy further to U.S. goods, services, and foreign direct investment, especially in the oil sector.

Venezuelan President Rafael Caldera took office on February 2, 1994 in the midst of a difficult economic situation characterized by lower oil prices, a large fiscal deficit, rising inflation, negative growth, a crisis in the nation's banking system, and uncertainty over future economic policies. Oil plays a major role in Venezuela, and Venezuela is our second largest source of imported oil. The RFG dispute has become the most heated issue in U.S.-Venezuelan relations.

Expected Reactions to Allowing Individual Foreign Refinery Baselines

During the Fall of 1993 when the RFG rule was being finalized, EPA received strong adverse reactions to allowing individual foreign refinery baselines from domestic refiners, state air organizations, and from the Hill. The American Petroleum Institute (API) opposed individual baselines for foreign refiners, and Sun and Mobil (who compete with Venezuelan gasoline in the Northeast US) were strongly opposed. API and the oil companies portrayed individual foreign refinery baselines as a "giveaway" to foreign refiners, with adverse air quality consequences. NESCAUM (Northeast states' air consortium) opposed individual foreign refinery baselines because of the NOx impact of Venezuelan gasoline in the Northeast.

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One industry group representing independent marketers (SIGMA) supported individual foreign refinery baselines, because they felt the price of imported gasoline represents a ceiling on the price that can be charged by U.S. refiners. On the other hand, gasoline retail dealers associations from Virginia, Pennsylvania, and Long Island wrote letters opposing PDVSA.

EPA received letters signed by 54 Congressmen on this issue. 49 Congressmen were opposed to allowing individual foreign refiner baselines citing the concerns of the domestic refiners and the adverse air quality consequences, while 5 Congressmen took the opposite view because of gasoline price implications.

Opposing individual foreign refinery baselines -- Senators: Baucus, Breaux, Cohen, Ford, Graham, Johnson, Lautenberg, Lieberman, Mathews, McConnell, Mikulski, Mitchell, Robb, Sarbanes, Sasser, Specter, Warner, and Wofford; Representatives: Andrews, Barton, Bevil, Boucher, Brooks, Brown, Byrne, Chapman, Fields, Franks, Gallo, Greenwood, Hall, Hastert, Hochbruchkner, Machtley, Martin, McMillan, Mezvinsky, Mica, Moorhead, Oliver, Oxley, Pallone, Quillen, Richardson, Sisisky, Slattery, Smith, Tauzin, and Zeliff.

Supporting individual foreign refinery baselines -- Representatives: Frank, Manton, Markey, Studds, and Synar.

Privileged and Confidential
February 11, 1993

MEMORANDUM

SUBJECT: Reformulated Gasoline Program under the Clean Air Act

FROM: John Hannon, Attorney
Air and Radiation Division

TO: General Counsel

This memorandum describes the Clean Air Act's (CAA) reformulated gasoline program, applicable statutory provisions, the rulemaking background to the program, and certain legal issues in the supplemental proposal signed by former Administrator Reilly.

I. Relevant Statutory Requirements

Regulations [§ 211(k)(1)]

Reformulated gasoline ("RFG") regulations shall require the greatest achievable reduction in ozone-forming VOC emissions (during the high ozone season) and toxics (during the entire year), taking into consideration cost as well as "nonair-quality and other air-quality related health and environmental impacts and energy requirements."

General Requirements [§ 211(k)(2)]

A. Oxygen content

Oxygen content shall equal or exceed 2.0 weight percent. EPA may waive requirement in part or whole for any ozone nonattainment area if compliance with this requirement would prevent or interfere with area's attainment of a NAAQS.

B. NO_x emissions

NO_x emissions from "baseline" vehicles when using RFG shall be no greater than when using baseline gasoline. Baseline vehicles are defined as representative model year 1990 vehicles. If compliance with the NO_x limit is technically infeasible, EPA may adjust or waive the oxygen content as well as other specified requirements to ensure "no NO_x increase."

C. Benzene content

- 2 -

Benzene content shall be no more than 1.0 volume percent.

Formula or Performance Standards [§ 211(k)(3)]

- A. Regulations shall require compliance with either a formula or performance standard, whichever is more stringent. This is determined independently for toxics and VOCs. The SNPRM is based on performance standard (§ 211(k)(3)(B)) as it is more stringent than the formula (§ 211(k)(3)(A)).

- B. VOC performance standard, 1995-99 (Phase I)

RFG must achieve 15% reduction in mass of ozone-forming VOC emissions. Comparison is between baseline vehicles using RFG and baseline vehicles using baseline gasoline. VOC controls only apply during the "high ozone season," not year round. [§ 211(k)(3)(B)]

EPA has interpreted these percentages as minimums, based on § 211(k)(1)'s requirement for greatest achievable reductions.

- C. VOC performance standard, 2000 and later (Phase II)

RFG must achieve 25% reduction, except EPA may increase or relax this requirement based on technological feasibility (considering cost). 20% set as minimum reduction. [§ 211(k)(3)(B)]

- D. Toxics performance standard

The performance standards for toxics control are basically the same as for VOC control, except it is a year round program addressing five specific toxic substances, including benzene. [§ 211(k)(3), (k)(10)]

Certification procedures [§ 211(k)(4)]

EPA regulations are to include procedures for certification of gasolines or slates of gasolines that comply with the reformulated gasoline requirements.

State Opt-in [§ 211(k)(6)]

States may opt-in to the federal program. Upon receipt of an application from a governor, the federal program will apply to the ozone nonattainment areas requested by the state. EPA is to publish notice of any such request, and establish an effective date for the program in those areas.

- 3 -

EPA may extend the effective date for opt-in areas for up to two years if there is insufficient domestic production capacity for reformulated gasoline. In general, areas with less of a summertime ozone problem are to receive extensions before areas with worse problems.

Credit Provisions [§ 211(k)(7)]

The regulations shall allow transferable credits for RFG that surpasses oxygen, aromatics¹, and benzene requirements.

Anti-dumping provisions [§ 211(k)(8)]

The regulations shall establish a program to ensure that the reformulated gasoline requirements do not lead to a degradation in the quality of conventional gasoline marketed in the rest of the country. The standards for conventional gasoline are refiner specific, and are based on the emissions characteristics of the gasoline sold by that refiner in 1990. Average per-gallon emissions for VOCs, NOx, CO, and toxics may not exceed the average per-gallon emissions of that refiner's 1990 gasoline.

Emissions from entire vehicle [§ 211(k)(9)]

The RFG and anti-dumping requirements are based on emissions from the entire vehicle, including both exhaust, or tailpipe, emissions, and non-exhaust emissions (evaporative, running loss, and refueling emissions).

Covered areas [§ 211(k)(10)(D)]

Reformulated gasoline must be sold in the nine ozone nonattainment areas with the highest ozone design value for 1987 through 1989, with a 1980 population in excess of 250,000. EPA has interpreted this to mean metropolitan Hartford, the New York/northern New Jersey/Long Island/Connecticut area, Philadelphia, Baltimore, Chicago, Milwaukee, Houston, Los Angeles, and San Diego.

Statutory deadlines [§ 211(k)(1), (k)(4)(C), (k)(8)]

Section 211(k) contains three separate mandatory duties requiring final action by November 15, 1991. EPA must issue

¹ Aromatics requirements would only take effect if the formula fuel under § 211(k)(3)(A) is more stringent than the performance standard under § 211(k)(3)(B). EPA's recent SNPRM is based on the performance standard, not the formula, therefore EPA is not proposing an aromatics content requirement.

regulations establishing requirements for reformulated gasoline (§ 211(k)(1)), must determine the level of emissions of baseline vehicles using baseline gasoline, and issue rules establishing appropriate methodologies for measuring emissions of pollutants (§ 211(k)(4)(C)), and must issue rules establishing anti-dumping requirements § 211(k)(8)(A)). The consent order in the citizen deadline suits filed by Congressman Henry Waxman and Sierra Club requires EPA to take final action on these duties by march 15, 1993, except that if a supplemental proposal is issued by that date then EPA must take final action by September 15, 1993.

II. Rulemaking background

Shortly after the passage of the Act, EPA initiated negotiated rulemaking under the Negotiated Rulemaking Act of 1990, P.L. 101-648, establishing an advisory committee under the Federal Advisory Committee Act² consisting of representatives from many different groups likely to be substantially affected by the rule.

Given the one-year statutory deadlines in section 211(k), in July 1991 EPA published an NPRM while the advisory committee was still conducting negotiations.³ This proposal described the outline of the reformulated gasoline program and a long list of options under consideration by the reg neg committee. The subsequent negotiations culminated in an August 1991 Agreement in Principle and accompanying outline of a proposal, signed by each of the reg neg committee members. Several side-bar letters between EPA and the individual committee members were signed to remove their objections to the signing the Agreement and clarify its meaning.

On April 16, 1992 EPA published a supplemental notice of proposed rulemaking containing detailed provisions based on the regulatory negotiation consensus, as well as detailed provisions on areas not specifically covered by the agreement.⁴ EPA held a two day public hearing in Chicago, Illinois in June 1992, focusing almost exclusively on concerns raised by the ethanol industry.

The reg neg Agreement called for EPA to propose a "simple model" (SM) for certification of reformulated gasoline, along with reformulated gasoline performance standards for the years 1995 through 1999 (Phase I). EPA proposed these in the April 1992 SNPRM. The Agreement also called for EPA to propose, by

² 5 U.S.C. App. § 1, et seq.

³ 56 FR 31176 (July 9, 1991).

⁴ See 57 FR 13416 (April 16, 1992).

November 15, 1992, a "complex model" (CM) for certification of reformulated gasoline as well as reformulated gasoline performance standards for the year 2000 and later (Phase II).

III. Supplemental Notice of Proposed Rulemaking

The SNPRM signed by former Administrator Reilly proposed:

- (1) implementation of the ethanol provisions announced by President Bush on October 1, 1992;
- (2) the Complex Model, including provision for its optional use before it became mandatory;
- (3) the Phase II VOC and toxics performance standards;
- (4) a NOx performance standard for Phase II, under separate authority of section 211(c)(1) of the Act;
- (5) various modifications to the previous proposal, including changes to the Simple Model, anti-dumping, and enforcement provisions.

Internal and inter-agency review of this supplemental proposal was completed in a very expedited time frame. For many controversial issues, invitations public comment on a variety of options was used to temporarily resolve internal agency objections and provide flexibility for the new administration.

IV. Legal Issues of Most Concern

Ethanol provisions

1. Background and description of proposal

Under section 211(k)(1), EPA's reformulated gasoline regulations must "require the greatest reduction in emissions of [toxics and ozone forming VOCs] achievable through the reformulation of conventional gasoline, taking into consideration the cost of achieving such emissions reductions, any nonair-quality and other air-quality related health and environmental impacts and energy requirements." This authority is limited by section 211(k)(3), which under our interpretation establishes minimum levels for the VOC and toxics emission reduction standards (15% for Phase I, and 20-25% for Phase II). Assuming an adequate justification under the factors noted in section 211(k)(1), EPA appears authorized to establish a less stringent performance standard for ethanol blends than for other reformulated gasolines, within the constraints of the minimum reductions required by section 211(k)(3). The SNPRM's ethanol provisions rely on this legal theory.

Under the reg neg proposal, VOC reductions under the SM were to be achieved from limits on the oxygen content and on the Reid vapor pressure (RVP) of reformulated gasoline. RVP is measured in pounds per square inch (psi), and is a measure of gasoline's volatility or propensity to evaporate. Motor vehicle emissions decrease as the RVP of gasoline decreases, primarily through reductions in evaporative and other non-exhaust emissions. The oxygen content also reduces emissions, through reductions in tailpipe emissions.

Under the SM, the RVP standard for RFG sold in the northern parts of the country would be 8.1 psi, while for southern RFG it would be 7.2 psi. The minimum oxygen content of RFG gasoline was set at 2.0% (wt.).⁵ The same standards applied whether the gasoline contained ethanol or not. Since ethanol increases the RVP of gasoline by about 1 psi at typical blending percentages, persons wishing to market ethanol blends of RFG would need to purchase a sufficiently low RVP gasoline for blending such that ethanol's 1 psi RVP boost would not cause the final blend to exceed the standard.⁶

The ethanol industry claimed this would effectively exclude them from the RFG market. They claimed requiring sub-RVP blendstock would either make ethanol blends uneconomical, or would place their fate in the hands of the oil industry, who would intentionally refuse to produce it such blendstock. In either case, this would exclude ethanol from the RFG market. They fought to obtain a one psi waiver for ethanol blends as a solution to this problem. EPA, the oil industry, states and others opposed the one pound waiver, claiming ethanol would in fact be economical and sub-RVP blendstock would be available. In addition, a one psi waiver was both unlawful and would significantly reduce the emissions benefits of the reformulated gasoline program.

President Bush resolved this by directing that EPA propose changes to the RVP standard for RFG in the north that would effectively amount to a one psi waiver, but would still be environmentally neutral when compared to the prior proposal. For RFG without ethanol the RVP standard would be tightened from 8.1 psi to 7.8 psi, while the standard for ethanol blends would stay at 8.1 psi. The tighter standard on non-ethanol blends was designed to offset the RVP boost from ethanol blends composing up

⁵ These were proposed as "per-gallon" standards for RFG. For refiners that averaged, slightly more stringent standards applied. The SM proposal is discussed in more detail later.

⁶ The 1 psi increase in volatility for ethanol blends causes a significant increase in motor vehicle emissions.

to 30% of the market. Similar but less extensive changes were to be proposed for southern RFG.

The SNPRM takes an apparently aggressive approach in implementing President Bush's directive. For gasoline marketed in the northern half of the country, the proposed Simple Model RVP standard would be 7.8 psi if ethanol is not used. The RVP standard is increased corresponding to the percentage of gasoline blended with ethanol, ending back at 8.1 psi if a refiner blends ethanol into 30% or more of its RFG production. A similar standard setting process is used when ETBE, an ethanol based ether, is used. The same approach is taken for the VOC performance standards applicable when gasoline is certified under the Complex Model.

The SNPRM establishes a procedure whereby each refiner or blender starts with a "right" to blend ethanol in up to 30% of their production and obtain the corresponding reduction in the stringency of the RVP or VOC standard. These "ethanol blending rights" may be traded, allowing refiners to use ethanol in up to 100% of their gasoline with a corresponding loosening of the RVP standard above 8.1 psi. Each year EPA would require a commitment from refiners specifying the percentage of their production that would be blended with ethanol. If a refiner fails to either trade or commit to use their full 30% ethanol blending rights, EPA would reallocate these rights to other refiners and the refiner who "lost" these rights would be penalized in future years for not using or trading the full 30%. EPA also proposed that refiners could sell or trade commitments to blend. Combining this with RVP trading (discussed later), ethanol use could in effect be transferred from areas like New York to the midwestern cities like Chicago that are much closer to the ethanol production facilities and more used to the additive.

As this brief explanation indicates, the ethanol provision is both very complicated and seemingly designed to provide strong incentives for maximum ethanol use. It appears to go far beyond removing a potential barrier to ethanol's participation in the reformulated gasoline market.

2. Legal issues

Justification for the incentive program

♦ The proposal contains no more than the rudiments of a factual and policy justification. The preamble itself contains a few paragraphs paraphrasing President Bush's October 1992 announcement, reciting certain allegations concerning the benefits derived from ethanol use. The record support for these claims is almost non-existent. In addition to a clearly inadequate factual justification, there is also no discussion of

a conceptual framework for taking into consideration the various statutory factors such as "energy requirements."

OAR understood OGC's concern that this lack of a justification would be a fatal defect to finalizing this proposal, and understood the need to supplement the proposal later if necessary to support a final rule. There are real questions whether such a justification could be prepared, as little if any work has been done to date and initial investigation of the issues does not appear terribly helpful for ethanol.

♦ While a missing factual justification would in certain cases be curable, there is real concern that the ethanol proposal exceeds EPA's authority even with a clear justification. There is a significant risk that a court would see these provisions as improperly elevating national energy and other policies into the central emphasis of the program, displacing the statute's primary focus on emissions reductions. The preamble to the SNPRM attempts to avoid this by casting the provisions as necessary to remove barriers to full market participation by ethanol.

Environmental neutrality

♦ The SNPRM claims that the ethanol provisions are environmentally neutral when compared to the proposal agreed upon in regulatory negotiations - the tighter standards for non-ethanol blends should offset the increased emissions from the ethanol blends. However, the ethanol provisions fail to account for emission increases from the commingling of ethanol blends of gasoline with non-ethanol blends. Since the volatility of gasoline blended with ethanol is not linear with the amount of ethanol, commingling or mixing of ethanol blends with non-ethanol blends results in additional emission increases over what would occur without commingling. This mixing can occur, for example, in the underground storage tanks at the retail level or in motor vehicle gasoline tanks.

EPA arguably would have discretion to exclude commingling emissions from its performance standards, however this would be inconsistent with the agency's emphasis to date on regulating actual in-use emissions over the life of covered vehicles. The proposal invites comment on the commingling issue, e.g. on the amount of commingling, the emissions impact, and possible regulatory approaches.

Base oxygen content for determination of the 30% market share

President Bush's October 1992 announcement and the SNPRM's proposals use a 30% market share for ethanol blends as the benchmark for standard setting. However, the President's announcement did not describe the amount of ethanol used to

determine the 30% market share. Traditionally ethanol has been blended at 3.5% (wt.)⁷ to take advantage of various state and federal tax benefits. Reformulated gasoline under section 211(k) must contain a minimum 2.0% (wt), with a provision for trading oxygen credits between refiners. The SNPRM proposes basing the 30% market share on 2.7% (wt.) ethanol, basically as a compromise between 2.0% and 3.5%.

EPA should have significant discretion on this issue, however the proposal fails to provide a substantial explanation for picking 2.7% oxygen as the benchmark. Since 2.7% would lead to more ethanol use, this exacerbates the general concern about a lack of justification for the ethanol incentives. In addition, using 2.0% instead of 2.7% would help to minimize the commingling problem noted above.

The SNPRM seeks comment on what percentage is appropriate, from 2.0% to 3.5%.

RVP/VOC performance trading

◆ Section 211(k) explicitly authorizes trading programs for compliance with the benzene and oxygen content requirements, and EPA's prior proposal included such credit programs. Under the reg neg agreement, EPA proposed an additional credit program allowing refiners to comply on average with the VOC and toxics standards. Section 211(k) does not explicitly authorize this form of averaging.

EPA claims that averaging increases refiner flexibility, thus allowing refiners who average to save money even if the standard is more stringent. Averaging thus provides EPA with a basis for determining that a more stringent standard is achievable. Section 211(k)(1)'s general authority to require the "greatest achievable reductions" should therefore authorize EPA to allow averaging. This legal rationale is modeled after a similar approach successfully employed in establishing emissions standards for heavy-duty motor vehicle engines. In line with this, EPA previously proposed more stringent toxic and RVP standards when compliance was met on average.

◆ EPA's recent proposal would allow refiners to trade RVP or VOC performance credits, as well as average. Such trading between refiners would further increase refiner flexibility, making it easier to use ethanol blends. However, EPA did not propose a more stringent standard to go along with this increase in refiner flexibility. There is no clear justification why the

⁷ This corresponds to 10% (volume), the maximum amount of ethanol that may be blended into gasoline under a waiver issued by operation of law under section 211(f)(4) of the Act.

more stringent standard used with averaging would still be appropriate for purposes of trading. This leaves the RVP trading subject to attack as unauthorized.

Southern opt-in areas

◆ Section 211(k)(6) authorizes states to opt-in to the federal RFG program. EPA then sets the effective date for the RFG requirements in those ozone nonattainment areas, but retains authority to extend the effective date for up to two years based on a finding of insufficient domestic production capacity. To date, most of the eastern seaboard states have opt-ed in, as well as Texas.

◆ President Bush's October announcement included a provision whereby southern areas of the country that had opted-in to the federal RFG program could choose whether or not the ethanol provisions would apply in their jurisdiction. If they chose the ethanol provision, it would be structured around a 20% ethanol market share instead of a 30% share. EPA's SNPRM includes this provision.

◆ It is highly questionable whether section 211(k) authorizes a state to choose what federal RFG standard applies in its borders. Section 211(k)(6) authorizes states to opt-in to the federal program, in effect allowing a state to determine the geographic scope of the federal program. It does not authorize a state to choose the performance standards applicable in the area. It is also very doubtful that EPA could defend a federal rule that bases the stringency of a federal RFG standard solely on whether or not a Governor requested such a standard.

◆ The SNPRM raises these legal concerns, and invites comment on an option whereby a southern state could at any time petition EPA to revise the RFG regulations to include appropriate incentives for ethanol use.

In-use emissions model provisions

1. Background and description of proposal

Under the reg neg agreement, the VOC and toxics performance standards for the first years of the RFG program would be established using a "simple model" (SM). For the VOC standard this is somewhat of a misnomer, as the proposed SM standards are straightforward content requirements - a maximum RVP is established, as well as a minimum oxygen content.⁸ The proposed

⁸ The per gallon standards are 8.1 psi RVP for the north, and 7.2 psi for the south. The minimum oxygen content requirement is 2.0% (wt.). The standards for refiners that

- 11 -

SM toxics standard is a percentage reduction, with compliance measured using a simple model that accounts for a limited number of gasoline parameters. Finally, under the SM a refiner's sulfur, olefin and T-90 values⁹ are capped at the refiner's 1990 average levels. These SM standards would apply until March of 1977, or four years after EPA promulgated a "complex model" (CM), whichever occurred later.

This approach reflects the reg neg committee's general agreement that an emissions model based on data from a wide number of test programs would more accurately predict the relationship between gasoline parameters and vehicle emissions than limited test programs run by each individual refiner. The SM is based on the limited amount of test data available during the reg neg, with the CM to be developed after EPA and industry performed sufficient testing to confidently construct a more complicated model. The SNPRM signed by former Administrator Reilly proposed this complex model. It is based on EPA testing as well as testing conducted jointly by the automobile and oil industries.

During the reg neg, EPA used its in-use motor vehicle emissions model (the MOBILE model) to develop the SM standards.¹⁰ For purposes of the SM, the MOBILE model was used to predict baseline emissions (emissions of 1990 motor vehicles using baseline gasoline) and the RVP and oxygen levels needed to

average are slightly more stringent.

⁹ T-90 measures what percent of the gasoline evaporates at 90 degrees F.

¹⁰ EPA's MOBILE model predicts in-use emissions for the motor vehicle fleet, with the ability to vary inputs for average temperatures, fleet characteristics, driving characteristics, average mileage, average tampering rates, inspection and maintenance programs and the like. It is widely used by states and others for air pollution control purposes, including supporting analysis for State Implementation Plan submissions. EPA often uses the MOBILE model to evaluate SIP submissions and for rulemaking purposes. EPA's MOBILE model has gone through several revisions since it was first developed, with the most recent version released in December 1992 (MOBILE5.0). EPA did not want to rely totally on the MOBILE model for the reformulated gasoline program as it was not based on testing specifically aimed at determining how changes in a wide number of gasoline parameters affect emissions of motor vehicles using model year 1990 technology.

achieve a 15% emissions reduction from baseline emissions.¹¹ The SM standards adopted in the reg neg and proposed by EPA in April 1992 were based on these calculations. The CM proposed by EPA also relies heavily on EPA's MOBILE model, for example to determine baseline emissions. Both the SM and CM are therefore integrally tied to EPA's MOBILE model.

Both the reg neg agreement and EPA's April 1992 supplemental proposal are based on a draft, pre-release version of MOBILE4.1.¹² The SNPRM signed by former Administrator Reilly continues this reliance on pre-release MOBILE4.1, despite the release of MOBILE5.0 in December 1992. Under the proposal the pre-release version of MOBILE4.1 would be used for the SM standards, as well as the CM performance standards used during Phase I of the program (until 2000). MOBILE5.0 would be used for Phase II of the program.

Going from one MOBILE model to another changes both the level of baseline emissions and the level of reductions expected from a specific fuel reformulation. These also change depending on the assumptions made regarding state inspection and maintenance (I&M) programs. The SNPRM assumes basic I&M for Phase I, and enhanced I&M for Phase II. These assumptions could affect the stringency of the standard. For example, changing from basic to enhanced I&M reduces the emissions benefit expected from a set RVP level. With a set performance standard, assuming enhanced as compared to basic I&M would tend to force refiners to lower RVP even more or change other fuel parameters, including those that affect exhaust emissions levels. In either case additional expense and investment would be necessary.

2. Legal Issues

Reliance on an outdated MOBILE model

¹¹ The SM standards from the reg neg agreement were expected to achieve a 15% VOC reduction in the north, and slightly over 30% in the south, measured against baseline gasoline. However, when compared to the RVP standards applicable under separate EPA regulations, the SM standards were expected to generate a 15% reduction in both the north and south. EPA's authority to establish a performance standards requiring greater than 15% reduction is based on section 211(k)(1)'s requirement that the RFG regulations obtain the greatest achievable reductions. The percentage reductions found in section 211(k)(3) are seen as the minimum reductions required for the program, with EPA authorized to set more stringent standards if appropriate.

¹² The final version of MOBILE4.1 was released to the public in November 1991.

- 13 -

♦ During Phase I of the RFG program, EPA's proposed standards and emissions model are based on a currently outdated MOBILE model, the pre-release version of MOBILE4.1. The only justification provided for relying on an outdated MOBILE model is that changing to the more current version would change the predicted baseline emissions level, and change the comparative importance of exhaust and non-exhaust emissions in determining the total vehicle emissions. This could make it harder for certain refiners to comply with the standards, in effect increasing the stringency of the standard for those refiners. Reliance on the prior version of the MOBILE model avoids this. The proposal claims that emissions data generated from the more current versions of the MOBILE model show that there is no environmental prejudice from using the old version because the typical SM fuels should exceed the minimum 15% reductions required by the statute.

♦ The SM is concededly based on an outdated MOBILE model. When EPA originally proposed the SM, it was claimed to represent EPA's best efforts at modeling for reformulated gasoline. Continued use of the SM after we have more accurate and sophisticated models (the CM and MOBILE5.0) is based on the lack of adequate leadtime for refiners to prepare for standards based on these models. EPA claims that typical or average SM fuels should exceed the 15% minimum by several percentage points even when viewed from the more accurate lenses of the CM.

Continued use of the SM appears a reasonable approach given the history of the SM, its limited use for a two year time period, and the deference expected for initial implementation of a new and complicated program. However, there is only limited factual justification for the leadtime concerns, and there is limited analysis of the extent of SM fuels that could fail to meet the 15% standard. These logical gaps in our defense leave the SM subject to attack.

♦ Despite a four year leadtime, the Phase I CM would continue reliance on this outdated MOBILE model. The justification for this is weak. There is only a minimal showing that refiners have inadequate leadtime to face a more stringent standard, and no convincing explanation why any increase in stringency couldn't, in any case, be resolved by using the more accurate MOBILE model and then adjusting the standard. OMS feels the choice of MOBILE model makes little practical difference with respect to either stringency of the standard or in-use emissions impact, and desires the less accurate model to minimize objections from the refining industry. In effect EPA would need to claim we are intentionally using an inaccurate model because it doesn't make much difference. The inaccuracy of the Phase I CM could be easily attacked as without substantial evidence and arbitrary and capricious.

- 14 -

♦ The SNPRM does invite comment on what version of the MOBILE should be used, and what prejudice there is, if any to either refiners or the environment.

Reliance on a version of the MOBILE model that is lost

♦ While the pre-release version of MOBILE4.1 was used as a basis for the 1992 SNPRM and the current SNPRM, there is no record of its contents. The program office has committed to generating a replica of the lost MOBILE model and putting it in the docket.

♦ At this time there is no record support for EPA's proposed reliance on the lost model, and use of a replica is very suspect record support.

I&M assumptions

♦ EPA's recently issued enhanced I&M rule requires many ozone nonattainment areas to implement enhanced I&M by January 1995, with authority for states to phase in the percentage of vehicles tested until January 1996, and to phase in the severity of the I&M emission standards until January 1998. Notwithstanding these regulatory requirements, the SNPRM assumes the existence of basic I&M for purposes of the CM throughout Phase I of the program, until the year 2000, and assumes enhanced I&M after that. The proposal claims that while EPA wants to base it's program on actual in-use emissions, enhanced I&M won't be fully implemented until the latter part of Phase I of the RFG program and changing to an enhanced I&M assumption during Phase I could require certain refiners to make additional investments to be used for only a short period of time.

♦ The SNPRM contains a fairly weak showing that it's Phase I I&M assumption accurately reflects the status of I&M programs during that time period. The assumption amounts to no enhanced I&M until 2000, despite the requirements in EPA's enhanced I&M rule. There is also a fairly weak showing that any different assumption would cause serious problems for industry. At the same time, EPA should have the flexibility to base its model on a single assumption covering a time period where I&M programs are moving from basic to enhanced I&M.

♦ EPA may have the discretion under section 211(k) to base the RFG program on something other than actual in-use emissions. The statute requires reductions in emissions but does not define how we should measure emissions or what emissions to include other than requiring that we look at emissions from the whole vehicle. With an adequate rationale we might well have the flexibility to exclude the effects of enhanced I&M programs from our modeling.

- 15 -

Such a position would however be inconsistent with the basic approach taken by the agency to date. With no convincing rationale for a change, intentionally excluding enhanced I&M from the Phase I model would clearly be suspect.

♦ The SNPRM invites comment on what I&M assumption is appropriate.

Dilution and other interactive effects

♦ Neither the SM, the CM, nor their respective standards take into account the emissions impact from the mixing of different gasolines in the distribution network. This mixing occurs during distribution through the pipelines, at the retail outlets, and inside vehicles' tanks. The emissions impact from commingling ethanol and non-ethanol blends is likewise not accounted for.

♦ EPA should have discretion in defining how emissions performance is defined and measured. For example, EPA should be able to require the use of an emissions model as compared to requiring actual vehicle testing, and to determine whether emission reductions are based on actual, in-use emissions or laboratory emissions. In the same vein, EPA should have discretion to determine emission performance by locking either at gasoline as it leaves the refinery (without any commingling or other interactive effects), or as it enters the vehicle's engine (taking into account such effects). This discretion, of course, must be exercised in light of the primary goal of section 211(k) - reduction of in-use motor vehicle emissions in the county's most smog polluted cities.

♦ To date, EPA has taken as a basic approach that emissions performance is based on reductions of actual in-use motor vehicle emissions. At the same time, EPA's proposals have deviated from this for various reasons, ranging from lack of knowledge (reliance on a SM) to lack of leadtime (continued reliance on SM even after CM has been developed, reliance on outdated versions of a MOBILE model, etc.).

♦ The SM standards do not account for interactive effects, based at first on lack of information and later on leadtime concerns. The proposed CM and related performance standards continue this approach and do not account for interactive effects. The proposal does not provide a significant justification for this. The issue has been avoided primarily because it raises questions about the interactive effects from ethanol blends. EPA should either include interactive effects in its emissions model and standards, as best it can, or provide a cogent explanation for why it does not.

The SNPRM does invite comment on what approach EPA should take regarding interactive effects.



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United States Department of State 47A

Washington, D.C. 20520

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42

MEMORANDUM

TO: EB - ~~XXXXXXXXXXXXXXXXXXXX~~
FROM: EB ~~XXXXXXXXXXXXXXXXXXXX~~
SUBJECT: Independent Report on Reformulated Gasoline.

DL Page 1 of 1
MIR Cases Only:
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PA

The Venezuelans and the EPA held a preliminary meeting January 5 to explore options to resolve the reformulated gasoline trade dispute. Representing Venezuela were embassy Minister Counselor Grisante and PDVSA, Washington lawyer Mike Sherman of Collier, Rill and Scott. EPA was represented by Mary Smith, EPA Director of the Office of Mobile (pollution) Sources, George Lawrence, also of Mobile sources and an EPA lawyer. (Smith reports to Dick Wilson who reports to Assistant Administrator Nichols.)

According to Mr. Sherman, Smith explained that the EPA had turned down the "foreign refiner baseline" proposal because it would allow foreign refiners to be given the option of establishing their own baseline or of adhering to the average U.S. baseline. EPA, Smith claimed, feared that some cleaner (European) foreign refiners would lower their standard to the "dirtier" U.S. baseline, thus reducing the overall quality of the imported reformulated gasoline pool. Smith acknowledged that Venezuela's problem was the opposite but said that the option that would let Venezuela comply would also create a "loophole" for others. Sherman proposed that PDVSA reformulated be held to emissions, not ingredient, standards and EPA said it would consider this concept and get back to him. Sherman is now on consultations in Caracas and an EPA response is anticipated shortly.

Minister Parra told Ambassador Davidow January 10 that he is writing EPA to formally request consultations on the issue. Venezuela also stands prepared to notify the GATT of the dispute, for a second time, on January 25.

State's examination of foreign refinery slates suggested to us that few foreign refiners were investing the large sums necessary to produce U.S. market-specific reformulated gasoline. We asked the CIA to obtain an independent analysis from Purvin and Gertz, an oil consulting firm in Houston that it has on retainer.

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Purvin and Gertz report (tab 1) that Latin America is the principal foreign supplier of gasoline to the U.S., and will also be the principal supplier of reformulated gasoline. In addition to Venezuela's 50,000 b/d reform potential, even with no EPA compromise, the Hess refinery in the Virgin Islands "would have no trouble" meeting EPA standards and supplying about 45,000 b/d of reformulated gasoline to the U.S. market.

Purvin and Gertz believe the Europeans (France, Italy, Spain, Netherlands and U.K.) will be challenged to comply with both European and U.S. environmental programs simultaneously. They note that low margins on U.S. gasoline have reduced European gasoline exports to the U.S. from 150,000 b/d a few years ago to 50,000 b/d in 1993. Purvin and Gertz still anticipate, however, that the European refinery slate will be capable of supplying over 50,000 b/d of reformulated gasoline to the U.S.

Purvin and Gertz also report that Canada and Saudi Arabia could supply 50,000 b/d and 20,000 b/d plus of reformulated respectively.

Comment: The Purvin and Gertz study helps to define the universe of potential foreign reformulated gasoline refiners and does not identify any unexpected major refiners of reform -- which should comfort the EPA to some extent. While there are more reform capable European refiners than we had anticipated, the aggregate European volumes are not large and the report notes that European reform exports to the U.S. may be displaced on the margin by reform from the more proximate Virgin Islands. We will share the report informally with EPA, if nothing else to demonstrate that we will continue our constructive dialogue with them.

The findings of the report may also be of use in convincing the Venezuelans to address the issue bilaterally and not before the GATT. Although most foreign refiners that Purvin and Gertz identified are not expected to have problems conforming to EPA's statutes, a strong Venezuelan push in the GATT would only attract the attention of third parties, potentially bogging down the process, increasing potential USG liabilities and diluting possible GOV benefits. We will also sensitize EPA to the risk of third party complaints, which should provide added impetus for them to resolve the outstanding issue with Venezuela. An immediate and positive USG response to Minister Parra's written request for consultations will be an essential element of our strategy to diffuse this trade dispute on a bilateral basis.

Drafted: EB [REDACTED]
1/11/94 7-1476

Cleared: EB [REDACTED]
ARA [REDACTED]

cc: Embassy Caracas

DRAFT 11/9/92

MEMORANDUM -- November 6, 1992

SUBJECT: PDVSA -- FOSD Response

FROM: Fielding E. Lamason, Jr., Attorney/Advisor
Field Operations and Support Division
Office of Air and Radiation

TO: Jonathan Martel, Attorney
Air and Radiation Division
Office of General Counsel

This memorandum responds to the issues raised by Petroleos de Venezuela, S.A. ("PDVSA"), as summarized in your Draft Note of October 15, 1992. To reiterate:

PDVSA submits that the different rules for foreign and domestic refiners regarding baseline determination are unjustifiable and violate the General Agreement of Tariffs and Trade ("GATT").

◆ PDVSA submits that it, like domestic refiners, has sufficient data to develop its own 1990 baseline under all three Methods, and that it would submit its Venezuelan refineries to audits to verify its baseline and certification data in the same manner as domestic refiners.

◆ PDVSA submits that the SNPRM approach violates the GATT's National Treatment Clause, which states that regulations affecting distribution and sales "should not be applied to imported or domestic products so as to afford protection to domestic production [Imported products from another party] shall be accorded treatment no less favorable than that accorded to like products of national origin"

◆ PDVSA also submits that GATT exceptions for measures: (1) necessary to protect human, animal or plant life; necessary to secure compliance with laws or regulations; or (3) relating to the conservation of exhaustible natural resources, are not applicable.

INTRODUCTION

EPA's proposed regulations to implement the reformulated gasoline program provide that domestic refiners and importers of foreign produced gasolines could meet performance standards for reformulated and conventional gasolines by different methods. Domestic refiners would be required to use one of the three Methods described above (in order of priority of stringency) or to use a statutory baseline standard. Use of any Method or statutory standard would be subject to independent auditing and EPA approval of the refiner's production history.

Importers, however, would be limited to use of the first Method or to the statutory baseline alone.

PDVSA, a foreign refiner marketing through domestic in the United States, seeks the ability, proposed to be available to domestic refiners, to establish its gasoline baselines by reference to historical production records under one or more of the methods described above. PDVSA avers that it would be amenable to EPA auditing for verification.

I. STATUTORY REQUIREMENTS

A. Reformulated Gasoline

Section 211(k)(3) of the Act, establishing the reformulated gasoline program, requires that VOC and toxic emissions from gasolines be reduced relative to the emissions attributable to the statutory "baseline gasoline" whose properties are specifically defined in section 211(k)(10)(B) of the Act. In the alternative to statutory baseline standards, EPA has proposed that for reformulated gasoline the parameters of sulfur, T-90 and olefins shall be established by individual refinery records using the Methods described above, or with reference to the statutory baseline.

Importers would be required to establish an individual baseline for sulfur, T-90 and olefins only under Method 1 (if importers possessed sufficient documentation to support the calculation). All other parameters would be established by the statutory baseline. EPA believes it is unlikely that importers will have available the records required under Method 1. Accordingly, most importers would default to that statutory baseline for reformulated gasoline.

B. Anti-Dumping of Pollutants in Conventional Gasoline

Section 211(k)(8) (the "anti-dumping program") complements the reformulated gasoline program by providing for maintenance, on average, of the current quality of conventional gasoline. The program is intended to prevent refiners from introducing

pollutants removed from reformulated fuel into conventional gasoline marketable in other parts of the U.S.

The anti-dumping program requires that domestic refiners calculate the current quality of conventional gasoline by use of the more stringent of one of the prioritized Methods or by use of the statutory baseline. Domestic refiners would be subject to independent audits and EPA approval to establish the refiners' baselines.

Importers would be required to use the first Method described above to establish a baseline for conventional gasoline or to use the statutory baseline. EPA believes it unlikely that importers will have available the records required under Method 1. Accordingly, most importers would default to that statutory baseline for conventional gasoline.

II. JUSTIFICATION FOR DIFFERENTIATING BETWEEN REFINERS AND IMPORTERS

The regulations distinguish between refiners and importers based on the amenability of each party to verification of 1990 production records. Domestic refiners are anticipated to have adequate information available demonstrate production capability with certainty.

A. Incentive to Game the System

If importers to were allowed to establish individual baselines based on 1991-1992 data (a Method otherwise available to domestic refiners), it is likely these reported baselines could be very high compared to that of a domestic refiner. There would be no way (1) to prevent the importer from choosing high emission gasoline to import in 1991-2 simply to get an advantageous baseline and (2) to insure that 1991-2 gasoline was the same as 1990 gasoline imported.

EPA believes that to allow importers to develop high baseline emissions without the data required by Method 1 would encourage gaming, *i.e.*, high emissions producing gasoline and blendstocks could leave the U.S. (from a refiner with a relatively low baseline calculated under one of the Methods) and come back into the U.S. via an importer with a relatively high baseline. This clearly would be dumping, as well as environmentally and competitively detrimental. It would also allow importers to meet a less stringent standard overall than domestic refiners.

The same incentive to game the system exists for foreign refiners. A foreign refiner could operate under an unverifiable high baseline and import the product into the U.S. through an

importer with a relatively high baseline. The foreign refiner would realize a clear competitive advantage and contribute to environmental degradation.

Accordingly, the proposed distinction between importers and domestic refiners is justified based upon EPA's interest in maintaining a level playing field for the regulated community, the goal of the Clean Air Act to maximize environmental benefits associated with the reformulated fuels program, and the overarching public health goals sought to be protected by the Act.

B. Domestic Refiners Prevented From Gaming the System by Audits

The critical distinction between domestic refiners and importers (and foreign refiners) is that domestic refiners are anticipated by EPA to be amenable to verification audits to ensure that their baselines are correctly certified. Otherwise, where a domestic refiner determined that the statutory baseline for conventional gasoline is dirtier than individually calculated parameters, the domestic refiner would choose the less stringent statutory baseline. The country would lose environmental benefits and the domestic refiner would gain a competitive advantage.

C. Importers (and Foreign Refineries) Not Amenable to Audits

Because importers and foreign refiners are not amenable to audited-verification by EPA-certified auditors, a foreign refiner would have an incentive to claim that its individually calculated parameters are much dirtier than the statutory standard. The refiner might then be able to "dump" dirty conventional gasoline into the United States, depriving the United States of the intended environmental benefits of the statutory baseline standard. The foreign refiner would gain a significant competitive advantage due to EPA's inability to maintain a level regulatory playing field.

1. Notwithstanding PDVSA's good intentions, the United States lacks authority to compel foreign refiners to submit to verifying audits.

EPA's ability to monitor and audit the baseline fuel characteristics of foreign refiners are substantially inhibited. In fact, EPA's past attempts to subject foreign corporations to EPA audits have been rebuffed. Many foreign refiners are nationalized operations which could significantly interfere with U.S. efforts to verify baseline representations. EPA has no

authority to conduct an inspection of a foreign refiner's records, to take samples for testing, or an effective means to seek sanctions for violations of the certification process. Accordingly, an ad hoc baseline certification standard for foreign refiners would be impossible to administer.

Accordingly, EPA's regulatory control exercised over domestic refiners is not available for foreign refiners. EPA therefore has proposed to hold foreign refiners to the statutory baseline gasoline to establish standards for reformulated fuels.

2. It is apparent from the language of Section 211(k)(8) that Congress intended to regulate the activities of domestic refiners and domestic importers of foreign produced gasoline.

Congress did not intend to create a separate (and competitively advantageous) certification program for foreign refiners. Rather, foreign refiners were to be regulated through their use of domestic importers.

3. PDVSA's offer to submit to full EPA authority for verification-audits is not adequate to prevent gaming of the system.

EPA would be unable to prevent a foreign refiner from gaming the system by deciding whether to submit data for individual baseline and to submit to EPA authority based on whether the individual or default baseline is more favorable.

Further, even if a privately owned foreign refinery agreed to submit to EPA authority, there is a risk that the country in which the refinery is located would prevent EPA inspectors to enter to conduct audits and inspections. Accordingly, the regulations address foreign gasoline at the point of entry into the United States, at which point EPA jurisdiction applies fully.

III. GATT COMPLIANCE

PDVSA argues that GATT exceptions for measures necessary to protect human, animal or plant life or necessary to secure compliance with laws or regulations are not applicable.

A. Health Concerns

1. Ozone

The primary purposes of the Clean Air Act in requiring reformulated gasoline are to reduce ozone-forming VOC emissions during the high ozone season and emissions of toxic air pollutants during the entire year.

Section 211(k) requires EPA to certify reformulated gasoline for use beginning in 1995 in gasoline-fueled vehicles in the worst ozone nonattainment areas and "opt-in" areas. This program compliments and builds upon the fuel volatility program implemented by EPA since the summer of 1989.

Control of gasoline volatility is necessary to control the formation of ozone precursors in automobile fuel emissions and the secondary formation of particulate matter. Evaporative hydrocarbon (HC) emissions from gasoline related sources are volatile organic compounds (VOCs) and contribute substantially to the formation of ozone (and other photochemical oxidants) in the atmosphere. Ozone formation is most active during the summer months because the chemical reactions involved rely on direct sunlight and high ambient temperatures.

Ozone is a powerful oxidant that reacts with a wide range of substances. In humans, ozone irritates the respiratory system and reduces lung function. Laboratory studies suggest that ozone may damage lung and other tissue. This damage may impair breathing and immunity to disease for people with pre-existing respiratory problems. Thus, violations of the National Ambient Air Quality Standard for ozone are considered a serious public health concern. Reduction in the exposure of humans to ambient concentrations of particulate matter is associated with reduction in morbidity and mortality.

In addition, oxidation by ozone and other photochemical oxidants can impair plant tissue and reduce the yield of some crops, as well as damage materials such as rubber products.

Ozone NAAQS nonattainment is almost entirely a summertime problem. Approximately 96% of ozone violations occur during the five month period from May through September. EPA's approach to volatility control focuses on reducing emissions during these five months.

The benefits of ozone reduction do not inure exclusively to nonattainment areas. High VOC emissions in one area of the country may be transported through the atmosphere and adversely affect air quality in another area.

2. Toxics

A primary environmental objective of the reformulated gasoline program is to reduce year round emissions of five major toxic air pollutants: benzene, formaldehyde, acetaldehyde, 1,3 butadiene, and polycyclic organic matter. Each of the five toxic compounds of concern increases cancer risk in exposed human populations. Exposure may be through atmospheric exposure, but also result from deposits of the compounds on soils and water.

Noncancer human health impacts (early mortality, disease incidence, and decrease in the quality of life) may also be associated with reductions of these five toxic compounds. Adverse effects of the respiratory system, blood, reproductive system and effects on the developing fetus are associated with inhalation exposure to five toxins.

3. Compliance with Laws and Regulations

The audit-verification procedures proposed for the regulations implementing the reformulated fuels program are essential to ensure the accuracy of refiners' calculations of the applicable baseline standards for the production of reformulated and conventional gasolines. Because foreign refiners are not amenable to EPA audits, the integrity of the program requires that foreign refiners be held to a statutory default standard.

IV. CONCLUSION

The treatment of foreign refiners proposed in the regulations is necessary to ensure that the public health benefits sought by Congress in enacting the clean fuels provisions of the Act are accomplished.

Privileged and Confidential
February 18, 1993

Ex 4

MEMORANDUM

SUBJECT: Legal Concerns on the Ethanol Reformulated Gasoline Supplemental Proposal

FROM: John Hannon, Attorney
Air and Radiation Division

TO: Michael H. Shapiro
Acting Assistant Administrator
for Air and Radiation

A supplemental notice of proposed rulemaking for the reformulated gasoline program was recently forwarded to the Federal Register for publication. It was signed by former Administrator William Reilly, and contains among other provisions a detailed proposal concerning gasoline blends containing ethanol or other renewable oxygenates. Internal and inter-agency review of this supplemental proposal was completed in a very expedited time frame. For many controversial issues, invitations for public comment on a variety of options was used to temporarily resolve internal agency objections and provide flexibility for the new administration.

The ethanol provisions are expected to be very controversial. This memorandum describes for your benefit certain legal concerns that we expect will be raised during the public comment period.

1. Background and description of proposal

Under section 211(k)(1), EPA's reformulated gasoline regulations must "require the greatest reduction in emissions of [toxics and ozone forming VOCs] achievable through the reformulation of conventional gasoline, taking into consideration the cost of achieving such emissions reductions, any nonair-quality and other air-quality related health and environmental impacts and energy requirements." This authority is limited by section 211(k)(3), which under our interpretation establishes minimum levels for the VOC and toxics emission reduction standards (15% for Phase I, and 20-25% for Phase II). Assuming an adequate justification under the factors noted in section 211(k)(1), EPA appears authorized to establish a less stringent performance standard for ethanol blends than for other reformulated gasolines, within the constraints of the minimum reductions required by section 211(k)(3). The SNPRM's ethanol provisions rely on this legal theory.

Under the reg neg proposal, VOC reductions under the SM were to be achieved from limits on the oxygen content and on the Reid vapor pressure (RVP) of reformulated gasoline. RVP is measured in pounds per square inch (psi), and is a measure of gasoline's volatility or propensity to evaporate. Motor vehicle emissions decrease as the RVP of gasoline decreases, primarily through reductions in evaporative and other non-exhaust emissions. The oxygen content also reduces emissions, through reductions in tailpipe emissions.

Under the SM, the RVP standard for RFG sold in the northern parts of the country would be 8.1 psi, while for southern RFG it would be 7.2 psi. The minimum oxygen content of RFG gasoline was set at 2.0% (wt.).¹ The same standards applied whether the gasoline contained ethanol or not. Since ethanol increases the RVP of gasoline by about 1 psi at typical blending percentages, persons wishing to market ethanol blends of RFG would need to purchase a sufficiently low RVP gasoline for blending such that ethanol's 1 psi RVP boost would not cause the final blend to exceed the standard.²

The ethanol industry claimed this would effectively exclude them from the RFG market. They claimed requiring sub-RVP blendstock would either make ethanol blends uneconomical, or would place their fate in the hands of the oil industry, who would intentionally refuse to produce it such blendstock. In either case, this would exclude ethanol from the RFG market. They fought to obtain a one psi waiver for ethanol blends as a solution to this problem. EPA, the oil industry, states and others opposed the one pound waiver, claiming ethanol would in fact be economical and sub-RVP blendstock would be available. In addition, a one psi waiver was both unlawful and would significantly reduce the emissions benefits of the reformulated gasoline program.

President Bush resolved this by directing that EPA propose changes to the RVP standard for RFG in the north that would effectively amount to a one psi waiver, but would still be environmentally neutral when compared to the prior proposal. For RFG without ethanol the RVP standard would be tightened from 8.1 psi to 7.8 psi, while the standard for ethanol blends would stay at 8.1 psi. The tighter standard on non-ethanol blends was designed to offset the RVP boost from ethanol blends composing up to 30% of the market. Similar but less extensive changes were to be proposed for southern RFG.

¹ These were proposed as "per-gallon" standards for RFG. For refiners that averaged, slightly more stringent standards applied. The SM proposal is discussed in more detail later.

² The 1 psi increase in volatility for ethanol blends causes a significant increase in motor vehicle emissions.

The SNPRM takes an apparently aggressive approach in implementing President Bush's directive. For gasoline marketed in the northern half of the country, the proposed Simple Model RVP standard would be 7.8 psi if ethanol is not used. The RVP standard is increased corresponding to the percentage of gasoline blended with ethanol, ending back at 8.1 psi if a refiner blends ethanol into 30% or more of its RFG production. A similar standard setting process is used when ETBE, an ethanol based ether, is used. The same approach is taken for the VOC performance standards applicable when gasoline is certified under the Complex Model.

The SNPRM establishes a procedure whereby each refiner or blender starts with a "right" to blend ethanol in up to 30% of their production and obtain the corresponding reduction in the stringency of the RVP or VOC standard. These "ethanol blending rights" may be traded, allowing refiners to use ethanol in up to 100% of their gasoline with a corresponding loosening of the RVP standard above 8.1 psi. Each year EPA would require a commitment from refiners specifying the percentage of their production that would be blended with ethanol. If a refiner fails to either trade or commit to use their full 30% ethanol blending rights, EPA would reallocate these rights to other refiners and the refiner who "lost" these rights would be penalized in future years for not using or trading the full 30%. EPA also proposed that refiners could sell or trade commitments to blend. Combining this with RVP trading (discussed later), ethanol use could in effect be transferred from areas like New York to the midwestern cities like Chicago that are much closer to the ethanol production facilities and more used to the additive.

As this brief explanation indicates, the ethanol provision is both very complicated and seemingly designed to provide strong incentives for maximum ethanol use. It appears to go far beyond removing a potential barrier to ethanol's participation in the reformulated gasoline market.

2. Legal issues

Justification for the ethanol incentive program

♦ The proposal contains no more than the rudiments of a factual and policy justification. The preamble itself contains a few paragraphs paraphrasing President Bush's October 1992 announcement, reciting certain allegations concerning the benefits derived from ethanol use. The record support for these claims is almost non-existent. In addition to a clearly inadequate factual justification, there is also no discussion of a conceptual framework for taking into consideration the various statutory factors such as "energy requirements."

The lack of factual justification in the SNPRM does give EPA the maximum flexibility on these factual and policy issues, as we have not taken a clear position on them. However, OGC discussed

it's concern with OMS that this lack of a justification would be a fatal defect to finalizing this proposal. It was understood that another supplemental notice would be required if EPA decided to finalize the ethanol provisions. An additional supplemental notice would help to provide a record support for EPA's final position, and would be required to satisfy notice and comment requirements.

♦ While a missing factual justification would in certain cases be curable, there is real concern that the ethanol proposal exceeds EPA's authority even with a clear justification. There is a significant risk that a court would see these provisions as improperly elevating national energy and other policies into the central emphasis of the program, displacing the statute's primary focus on emissions reductions. The preamble to the SNPRM attempts to avoid this by casting the provisions as necessary to remove barriers to full market participation by ethanol.

Environmental neutrality

♦ The SNPRM claims that the ethanol provisions are environmentally neutral when compared to the proposal agreed upon in regulatory negotiations - the tighter standards for non-ethanol blends should offset the increased emissions from the ethanol blends. However, the ethanol provisions fail to account for emission increases from the commingling of ethanol blends of gasoline with non-ethanol blends. Since the volatility of gasoline blended with ethanol is not linear with the amount of ethanol, commingling or mixing of ethanol blends with non-ethanol blends results in additional emission increases over what would occur without commingling. This mixing can occur, for example, in the underground storage tanks at the retail level or in motor vehicle gasoline tanks. The proposal also does not account for the emissions increases stemming from distillation differences between ethanol and non-ethanol blends.

EPA arguably would have discretion to exclude commingling emissions from its performance standards, however this would be inconsistent with the agency's emphasis to date on regulating actual in-use emissions over the life of covered vehicles. The proposal invites comment on the commingling issue, e.g. on the amount of commingling, the emissions impact, and possible regulatory approaches.

Base oxygen content for determination of the 30% market share

President Bush's October 1992 announcement and the SNPRM's proposals use a 30% market share for ethanol blends as the benchmark for standard setting. However, the President's announcement did not describe the amount of ethanol used to determine the 30% market share. Traditionally ethanol has been

blended at 3.5% (wt.)³ to take advantage of various state and federal tax benefits. Reformulated gasoline under section 211(k) must contain a minimum 2.0% (wt), with a provision for trading oxygen credits between refiners. The SNPRM proposes basing the 30% market share on 2.7% (wt.) ethanol, basically as a compromise between 2.0% and 3.5%.

EPA should have significant discretion on this issue, however the proposal fails to provide a substantial explanation for picking 2.7% oxygen as the benchmark. Since 2.7% would lead to more ethanol use, this exacerbates the general concern about a lack of justification for the ethanol incentives. In addition, using 2.0% instead of 2.7% would help to minimize the commingling problem noted above.

The SNPRM seeks comment on what percentage is appropriate, from 2.0% to 3.5%.

RVP/VOC performance trading

◆ Section 211(k) explicitly authorizes trading programs for compliance with the benzene and oxygen content requirements, and EPA's prior proposal included such credit programs. Under the reg neg agreement, EPA proposed an additional credit program allowing refiners to comply on average with the VOC and toxics standards. Section 211(k) does not explicitly authorize this form of averaging.

EPA claims that averaging increases refiner flexibility, thus allowing refiners who average to save money even if the standard is more stringent. Averaging thus provides EPA with a basis for determining that a more stringent standard is achievable. Section 211(k)(1)'s general authority to require the "greatest achievable reductions" should therefore authorize EPA to allow averaging. This legal rationale is modeled after a similar approach successfully employed in establishing emissions standards for heavy-duty motor vehicle engines. In line with this, EPA previously proposed more stringent toxic and RVP standards when compliance was met on average.

◆ EPA's recent proposal would allow refiners to trade RVP or VOC performance credits, as well as average. Such trading between refiners would further increase refiner flexibility, making it easier to use ethanol blends. However, EPA did not propose a more stringent standard to go along with this increase in refiner flexibility. There is no clear justification why the more stringent standard used with averaging would still be appropriate for purposes of trading. This leaves the RVP trading subject to attack as unauthorized.

³ This corresponds to 10% (volume), the maximum amount of ethanol that may be blended into gasoline under a waiver issued by operation of law under section 211(f)(4) of the Act.

Southern opt-in areas

◆ Section 211(k)(6) authorizes states to opt-in to the federal RFG program. EPA then sets the effective date for the RFG requirements in those ozone nonattainment areas, but retains authority to extend the effective date for up to two years based on a finding of insufficient domestic production capacity. To date, most of the eastern seaboard states have opt-ed in, as well as Texas.

◆ President Bush's October announcement included a provision whereby southern areas of the country that had opted-in to the federal RFG program could choose whether or not the ethanol provisions would apply in their jurisdiction. If they chose the ethanol provision, it would be structured around a 20% ethanol market share instead of a 30% share. EPA's SNPRM includes this provision.

◆ It is highly questionable whether section 211(k) authorizes a state to choose what federal RFG standard applies in its borders. Section 211(k)(6) authorizes states to opt-in to the federal program, in effect allowing a state to determine the geographic scope of the federal program. It does not authorize a state to choose the performance standards applicable in the area. It is also very doubtful that EPA could defend a federal rule that bases the stringency of a federal RFG standard solely on whether or not a Governor requested such a standard.

◆ The SNPRM raises these legal concerns, and invites comment an option whereby a southern state could at any time petition EPA to revise the RFG regulations to include appropriate incentives for ethanol use.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



EFS

OFFICE OF
AIR AND RADIATION

MEMORANDUM -- January 5, 1993

SUBJECT: Meeting with Petroleos de Venezuela, S.A.

FROM: Fielding E. Lamason, Jr. *Fielding E. Lamason, Jr.*
Attorney/Advisor
Field Operations and Support Division

TO: Administrative Record

On January 5, 1993, a meeting was held at EPA to discuss issues pertaining to setting baselines for foreign refiners. Dick Wilson, Mary Smith, Marc Hillson, Chip Lamason, John Hannon, Jonathan Martel, David Van Hoostraten, Rick Rykowski, and Chris Brunner (representing EPA); Sandy Gaines from the Office of the U.S. Trade Representative; Michael Sherman, Jeff Beckington from Collier, Shannon (counsel to PDVSA); and Humberto Vidal, PDVSA Coordinator for Manufacturing (oversees refinery operations); Miguel Salerno, PDVSA Manager of Budget (technical operations expert); and Edmund Bendetti, Minister/Counselor for Petroleum Affairs at the Venezuelan Embassy in Washington, D.C., attended.)

PDVSA presented its argument in support of allowing foreign refineries the option of establishing reformulated gasoline program baselines using the proposed Methods 1, 2 or 3.

1. PDVSA argues that it is appropriate to model the Methods for foreign refineries importing less than 75% of their total production into the United States.

PDVSA presented the following summary of information purporting to demonstrate that the Methods were appropriate for a 20% importer:

- Identification of each cargo (date, volume, product specifications, client, loading port, destination, designation of independent inspectors).
- Blender instruction records for each tank blended, type of product, blending composition, tanks to be used (blendstocks and products).

Attendance List

1-5-93

J. S. Beckington	Collier, Shannon, Rill & Scott	
MIGUEL SANCERNO	PETROLEOS DE VENEZUELA SA	
HUMBERTO VIDAL		
John Hannon	EPA-OGC	260-7634
Samford Hannon	U.S. Trade Representative	395-6864
Marc Hillier	EPA-OMS	233-9060
Chip Lamason	EPA-OMS	233-9024
Jonathan Martel	EPA-OGC	260-7699
Michael Sherman	Collier, Shannon	342-8560
Humberto Vidal	PDVSA	
Miguel Salerno	PDVSA	
Edmund Benedetti	Embassy of Venez	342-86823
Mary Smith	EPA-OMS	233-5000
Dick Wilson	EPA-OMS	260-7645

- Operational log of all product transfers involved in each tank blended.
- Lab tests during the cargo operation (line tests and ship tests).
- Quality certification of cargo verified by independent inspectors.
- Records of volume loaded from each tank involved in each 1990 cargo.
- Quality data of each blendstock during 1992, including all fuel parameters.
- Blendstock composition for each 1992 cargo.

PDVSA supplied a sample of the information that it would be able to produce to verify its 1990 baseline (attached).

- Contractual information of each shipment.

2. PDVSA argues that there will be little incentive for foreign refiners to "game" the system by defaulting to the statutory baseline.

Michael Sherman suggested that, in PDVSA's case, a high olefin content would not definitionally be a dirtier gasoline under the simple model. He stated that refiners in general would not have economic incentives to alter capital equipment to change olefin characteristics to game the system. Humberto Vidal stated that the need for refiners to produce a consistent quality of product would cut against altering the olefin content of gasoline to achieve an economic advantage.

3. PDVSA argues that EPA oversight and enforcement audits could be guaranteed through diplomatic instruments. Edmund Benedetti stated that such instruments, in Venezuela's case, could be accomplished in short order.

In the event of commingling of products between the foreign refinery gate and domestic importation, Sherman suggested that the statutory baseline should attach.

Attachment

3/3

EL PALITO REFINERY - EXPORT GASOLINES BLENDING FORMULATION
YEAR 1990

DATE	SHIP	NET VOLUME (BLS)	CAT CRAC GASOLINE	COMPOSITION (%)					OTHERS VIRG., NAPH.
				ALKYLATE	BUTANE	NATURAL GASOLINE	REFORMATE		
10-13	FORT WINDSOR	116220	59.1	26.0	6.7	8.2			
11-17	PAGODA	143128	57.5	26.1	7.2	9.2			
11-25	CANOPUS	142493	57.0	26.7	7.2	9.1			
11-28	ANATOLI	239172	57.4	25.2	6.6	10.8			
12-05	OSCO SWORD	39617	55.1	28.4	7.0	9.5			
12-12	EVERN MAESK	241551	52.4	30.8	4.1	9.0		4.7	
12-18	STAR LEADER	149986	51.2	28.0	6.2	9.0		5.6	
12-28	80RTS	232438	50.8	29.6	4.7	9.4		5.5	
	TOTAL	8740715	58.0	27.4	2.5	7.6		4.0	0.5

EL PALITO REFINERY - BASELINE
YEAR 1990

<u>DATE</u>	<u>SHIP</u>	<u>NET VOLUME</u>	<u>CLIENT</u>	<u>DESTINATION</u>
10-13	FORT WINDSOR	116220	CITGO	BOSTON, MASSACHUSETTS
11-17	PAGODA	143128	CITGO	NEW YORK
11-25	CANOPIUS	142493	CITGO	BOSTON, MASS.
11-28	ANATOLI	239172	GETTY CORP.	ATLANTIC COAST (MORE THAN ONE DESTINATION PORT)
12-05	OSCO SWORD	39617	CITGO	ATLANTIC COAST (MORE THAN ONE DESTINATION PORT)
12-12	EVERN MAESK	241551	PECTEN	SEWAREN, NEW YORK
12-18	STAR LEADER	149986	CITGO	LINDEN, NEW YORK
12-28	BORIS	232438	GETTY CORP.	ATLANTIC COAST (MORE THAN ONE DESTINATION PORT)

EL PALITO REFINERY - BASELINE
YEAR 1990

<u>DATE</u>	<u>SHIP</u>	<u>RE. VOLUME</u>	<u>CLIENT</u>	<u>DESTINATION</u>
05-19	URANUS	50483	GLOBAL CORP.	ATLANTIC COAST (MORE THAN ONE DESTINATION PORT)
05-25	ATHENIAN VICTORY	225939	GETTY CGRP.	ATLANTIC COAST (MORE THAN ONE DESTINATION PORT)
06-03	PACIFIC HUNTER	237707	SHELL	ATLANTIC COAST (MORE THAN ONE DESTINATION PORT)
06-09	DAN. FRIGG	240844	AECTRA	GULF COAST
06-17	PLUTO	237664	PECTEN	SEWAREN, NEW YORK
02-26	DAN FRIGG	241631	NORTHEAST PETRO.	BOSTON, MASS.
07-06	ERODONA	241837	AECTRA	NEW YORK
07-09	HAWAIIAN EXPRESS	241490	COASTAL	EAST COAST
07-19	WORLD CASTLE	241330	CITGO	EAST COAST
07-24	OSLOF JORD	232125	CITGO	BAINTREE, MASSACHUSETTS
07-31	WORLD PRODUCE	237311	GLOBAL CORP.	INTENTTON, BOSTON
08-08	ULAN	158801	CITGO	BAINTREE, MASSACHUSETTS
08-14	NIDIA	233011	AECTRA	GULF COAST
08-20	WIND STAR	241540	GETTY CORP.	PORTLAND
09-15	ZINA	240.0 MB	CITGO	LINDEN, NEW YORK
09-24	DELPHINA	241.5 MB	PECTEN	SEWAREN, NEW YORK
10-10	JULIEN N.	241486	GETTY	NEW YORK



PDUSA

PETROLEOS DE VENEZUELA S.A.
MANUFACTURING COORDINATION

EL PALITO REFINERY

EXPORT GASOLINE PRODUCTION RECORDS

1990



PDUSA

PETROLEOS DE VENEZUELA S.A. MANUFACTURING COORDINATION

AVAILABLE INFORMATION TO DEVELOP 1990 BASELINE

- **NOMINATION OF EACH CARGO, INCLUDES: DATE, VOLUMEN, PRODUCT SPEC CLIENT, LOADING PORT, DESTINATION, DESIGNATION OF INDEPENDENT INSPECTORS, ETC**
- **BLENDER INSTRUCTION RECORDS FOR EACH TANK BLENDED TYPE OF PRODUCT, BLENDING COMPOSITION, TANKS TO BE USED (BLENDSTOCKS AND PRODUCTS)**
- **OPERATIONAL LOG OF ALL THE PRODUCT TRANSFERS INVOLVED IN EACH TANK BLENDED.**
- **ANALYSIS OF EACH TANK BLENDED, INITIAL, INTERMEDIATE AND FINAL TANKS PROPERTIES INSPECTION VERIFIED BY INSPECTORS**
- **LAB TESTS DURING THE CARGO OPERATION. THESE INCLUDE:
- LINE TESTS (INITIAL AND PERIODICALLY DURING THE CARGO)
- SHIP TESTS (10%, 50% OF THE CARGO AND FINAL SAMPLE)**
- **QUALITY CERTIFICATION OF THE CARGO VERIFIED BY INDEPENDENT INSPECTORS**



PDUSR

PETROLEOS DE VENEZUELA S.A. MANUFACTURING COORDINATION

EL PALITO REFINERY 1990 BASELINE

FUEL PARAMETERS	AVERAGE
BENZENE, VOL.%	1.2
AROMATICS, VOL.%	16.5*
OLEFINS, VOL.%	20.2*
SATURATES, VOL.%	63.3**
RVP, PSI	10.1
IBP, °F	95
T10, °F	131
T50, °F	216
T90, °F	349
END POINT, °F	419
OCTANE, (R+M)/2	87.5
API GRAVITY	62.0
SULFUR, PPM	708

* USING METHOD 2

** SATURATES (%) = (100 - %OLEFINS - %AROMATICS)



Analistas e
Ingenieros
Venezolanos
de
Petróleo C.A.

**CERTIFICADO DE CANTIDAD
(CERTIFICATE OF QUANTITY)**

Fecha (Date) October 10, 1990

Buque (Vessel) "JULIA" N°

Puerto (Port) El Palito

Producto (Product) Regular Unleaded

INSPECTORES DE PETROLEOS Y PETROQUIMICOS
(PETROLEUM & PETROCHEMICAL INSPECTORS)

CPVWELP900052

Gasoline (As labeled by supplier)

TANQUE Nº (TANK Nº)	MEDIDAS (GAUGES)	T. O. V. Sols.	T TEMP.	GRAV. API 60 °F	FACTOR T-6 []	G. S. V. Sols.	S.W. VOL. %	Sols. S.W.	N. S. V. Sols.
65X3									
Initial	43'08 1/2	61317	88	63.5	0.9802	60103			
Adjust	by P/Roof	less 17 gross		bbls					
Final	04'10 1/8	6838	86	63.5	0.9816	6712			
Adjust	by P/Roof	less 16 gross		bbls					
						53391			53391
170X4									
Initial	46'00 7/8	165467	88	63.4	0.9802	162191			
Adjust	by P/Roof	less 39 gross		bbls					
Final	01'11 1/4	8342	86	63.4	0.9816	8189			
						154002			154002
65X3									
Initial	40'07 3/4	57012	92	64.9	0.9771	55706			
Adjust	by P/Roof	less 21 gross		bbls					
Final	15'08 7/8	22098	90	64.9	0.9785	21613			
Adjust	by P/Roof	less 20 gross		bbls					
						34093			34093

CONDICION DE LINEA DE TIERRA: AL COMIENZO (BEFORE LOADING) EMPTY FULL NOT ASCERTAINED
 ASCERTAINED BY: PUMP PRESS DISPLACEMENT
 (SHORE LINE CONDITION) AL FINAL (AFTER LOADING) EMPTY FULL NOT ASCERTAINED

CANTIDAD TOTAL
(TOTAL QUANTITY)

DESPACHADO POR: CORPOVEN S.A.
(DELIVERED BY)

Gross Standard	Net Standard
----------------	--------------

CONSIGNADO A: TO THE ORDER OF GETTY VOLUME/BALS 241486 241486
(CONSIGNEE) PETROLEUM CORP.
 VOLUME/U.S. GALL 10142412 10142412
 MET. TONS 27771.49 27771.49
 DRY TONS 27332 27332

DESTINO: 1 OR 2 US PORTS
(DESTINATION)

Wilmer Silva
AIVEPET - INSPECTOR

Analistas e
Ingenieros
Venezolanos de Petróleo
AIVEPET C.A.

CALLE MOHEDANO - CENTRO GERENCIAL MOHEDANO - 9190 3 - LA CASTELLANA - CARACAS 1980 - VENEZUELA
 TELEFONOS: 391.8233 - 392.8423 - 391.2925 - 391.2579 - TELEFAX: 31989 - 34919 - 31984 - FAX: 391289
 MIEMBRO DE LA CAMARA PETROLERA Y DE LA A.S.T.M.

Forma 005

10 30 190 10 20



PDVSA

PETROLEOS DE VENEZUELA S.A.

MANUFACTURING COORDINATION

EL PALITO 1990 BASELINE

USING METHOD 1.- INFORMATION OBTAINED FROM EL PALITO REFINERY
QUALITY CERTIFICATES OF INDIVIDUAL 1990 SHIPMENTS OF FINISHED
GASOLINE AND BLENDSTOCK

FUEL PARAMETERS	AVERAGE
BENZENE, VOL.%	1.2
AROMATICS, VOL.%	N/A
OLEFINS, VOL.%	N/A
SATURATES, VOL.%	N/A
RVP, PSI	10.1
IBP, °F	95
T10, °F	131
T50, °F	216
T80, °F	349
END POINT, °F	419
OCTANE, (R+M)/2	87.5
API GRAVITY	62.0
SULFUR, PPM	708

OLEFINS AND AROMATICS CONTENT NOT AVAILABLE BY METHOD 1



PDVSA

PETROLEOS DE VENEZUELA S.A.

MANUFACTURING COORDINATION

EL PALITO REFINERY - AROMATICS, OLEFINS AND BENZENE IN BLENDING COMPONENTS FOR UNLEADED GASOLINE - 1990 DATA

BLENDSTOCKS	SAMPLES QUANTITIES	AVERAGE		
		OLEFINS (%)	AROMATICS (%)	BENZENE (%)
CAT CRAC GASOLINE	11	33.46	23.64	1.58
ALKILATE	8	0.0	0.0	0.0
BUTANE	7	0.0	0.0	0.0
NATURAL GASOLINE	7	0.75	2.94	1.16
REFORMATE	10	0.71	49.06	2.63
OTHERS - VIRG NAPHT	26	1.10	6.12	0.40

PDVSA Talking Points for Environmentalists

- * PDVSA's gasoline exceeds the statutory baselines for olefins (22%) and sulfur (644 ppm) by significant amounts. NOx emissions are primarily influenced by sulfur and olefins. PDVSA's primary market is the Northeast.
- * The settlement provides that foreign refiners will be permitted to use their individual baselines for reformulated gasoline (RFG) compliance for 1995-97 if they are verifiable and only to the extent of their 1990 import volume. Any RFG beyond their 1990 volume and conventional gasoline would have to use the statutory baseline. The settlement would also provide for enforcement equivalent to that imposed on domestic refiners.
- * In effect, the settlement would not result in a NOx increase over 1990 levels as required by the Clean Air Act. It would have a small (much less than 1%) NOx increase compared to the RFG final rule.
- * The probability of the U.S. losing the GATT case brought by the Venezuelan government is high. This is because we are treating foreign refineries differently than domestics and the U.S. is unable to defend itself under GATT's environmental exception since some domestic refiners have some individual gasoline baseline parameters that are as dirty or dirtier than PDVSAs.
- * A loss of the GATT case would require EPA to permit PDVSA to use its individual baseline, without any volume restriction, for both RFG and conventional gasoline. Since PDVSA has indicated that use of its individual baseline would allow them to double their 1990 imports, this loss would result in significant NOx increases over 1990 levels.



Department of Energy
Washington, DC 20585

Ex 7

August 19, 1992

MEMORANDUM

TO: John J. Easton, Jr., EP-1
Assistant Secretary of Energy
Office of Domestic and
International Energy Policy

FROM: Rebecca W. Thomson, GC-15
Assistant General Counsel
for Legal Policy and Analysis.

RE: Legal Analysis of the Ethanol Options Paper

You have asked us to provide a legal analysis of the five ethanol options described in the attached EP Ethanol Issue Paper. After a general discussion of the statute and proposed rulemaking each option and its somewhat different legal issues are discussed.

STATUTORY BACKGROUND

Introduction

Title II of the Clean Air Act Amendments of 1990 ("CAAA", "the Act", "the Amendments") is designed to address, among other things, the formation of atmospheric ozone, or smog, and the emission of carbon monoxide ("CO"), NOx, and hazardous air pollutants ("air toxics") from mobile sources. The Amendments focus on the Reid Vapor Pressure ("RVP") of gasolines and the formation and emission of volatile organic compounds ("VOCs").² The Amendments place heavy emphasis on the development of reformulated fuels to achieve emission reductions. The Amendments require EPA to establish rules and certification procedures for reformulated gasoline ("RFG") by November 1991. The process of formulating the RFG regulations is being conducted through a negotiated rulemaking ("reg-neg") which began in 1991. The April, 1992 NOPR provides standards that would result

¹ Clean Air Act Amendments, Pub. L. No. 101-549, 104 Stat. 2399 (1990) codified, as amended, at 42 U.S.C. § 7545.

² CAAA sections 211(h) and 211(k)-(m). Although this is a gross simplification of the complex chemical process of ozone formation that the CAAA seeks to address, basically reducing RVP reduces volatility which, all other variables being equal, would reduce the VOCs formed and ultimately the amount of ozone produced.

in percentage reductions of VOCs and air toxics and a RVP reduction from 9 psi (lbs per square inch) to 7.2 psi in the southern and 8.1 psi in the Northern nonattainment areas. EPA called for comment on how to provide for the use of ethanol in the RFG rulemaking.⁵ It is the content of this latest proposed rulemaking that has concerned the ethanol industry.

CAAA Section 211(h)-Reid Vapor Pressure

Because fuel volatility had increased (and with that increase, came an increase in emissions of VOCs) since the phasedown of lead, Title II of the CAAA required EPA to prohibit the sale during high ozone season, summertime, of gasoline with a RVP in excess of 9 psi. Regulations under this section must establish even more stringent RVP standards in nonattainment areas, "as the Administrator finds necessary to generally achieve comparable evaporative emissions (on a per-vehicle basis) in nonattainment areas, taking into consideration the enforceability of such standards, the need of an area for emission control, and economic factors."⁶ RVP limitations established under this section are less stringent for fuel blends containing gasoline and 10% ethanol.⁷

CAAA Section 211(k) - Reformulated Gas

The section 211(k) regulations must require the greatest reduction in emissions of ozone-forming VOCs and emissions of air toxics achievable through the reformulation of conventional gasoline. In making these rules, EPA must consider the cost of achieving such emission reductions, any nonair-quality and other air-quality related health and environmental impacts, and energy requirements.⁸ New sections 211(k)-(m) set forth in detail the requirements (e.g. oxygen, benzene, and heavy metals content and nitrogen oxide and carbon monoxide emissions) with which all reformulated gasoline must comply.

Gas can be reformulated through the addition of certain oxygenates (e.g. ethanol, ETBE, methanol and MTBE) which reduce carbon monoxide emissions and change the volatility, reactivity (rate of ozone formation), and the pounds of ozone formed per pound of VOCs. Percentage reductions for VOCs and air toxics are from "baseline vehicles" using "baseline gasoline" as defined in the Act, i.e. these reductions must be made from representative model year 1990 vehicles using 1990 certification fuel during the high ozone season.⁷ Section 211(k)(3)

⁵ 57 Fed. Reg. 13416 (1992) (to be codified at 40 C.F.R. pt. 80) (proposed April 16, 1992).

⁴ CAAA section 211(h)(1).

⁵ CAAA section 211(h)(4). Pursuant to this subsection, for fuel blends containing gasoline and 10% denatured anhydrous ethanol, the RVP can be one psi greater than the applicable limitations in section 211(h)(1):

⁶ CAAA Section 211(k)(1).

⁷ CAAA sections 211 (10)(A) and (B).

and the NOPR require reductions of 15% in emissions of VOCs and air toxics by 1995, and up to 25% reductions by 2000, relative to baseline gasoline.

The NOPR would provide refiners with two modeling options to determine whether fuels meet the RFG requirements. The so-called simple model is described in the NOPR and allows certification based on the fuel's content. The simple model looks at the effects of RVP and oxygenates on VOC emissions and the control of aromatics, heavy metals and benzene to reduce air toxics. The complex model is still being refined. In addition to the content restrictions contained in the simple model, the complex model will analyze other parameters (e.g., olefins and sulfur) and their effects on VOCs, toxics, CO, NOx and ozone formation.

Under Title II, reformulated gasoline is the only fuel that will be allowed to be sold in the nine areas of worst ozone non-attainment beginning in 1995.⁸ Fuel refiners and marketers will be prohibited from selling uncertified fuel after January 1, 1995 in these areas. States may elect to have this requirement apply to other cities with ozone non-attainment problems (so-called opt-in areas).

CAAA Section 211(k)(7) also establishes a credit or averaging program, under which persons subject to the RFG requirements will be allowed to pool gasoline sold in a given nonattainment area for purposes of determining compliance with the RFG regulations. Under the credit program, a person may earn credit for gasoline which does better than the content and emission requirements of the RFG regulations. Such credits, once earned, may be used in the same nonattainment area in which they were earned to offset the sale or use of gasoline which does not meet the RFG content and emission requirements. However, credits may not be used to the extent that such use would result in an average content of air toxics in a nonattainment area that is less stringent than would occur without a credit program.⁹

Ethanol Industry Concerns.

Ethanol supporters have charged that EPA's proposed rulemaking implementing these Title II requirements would have the effect of excluding ethanol from being used under the agency's proposed fuels program. The ethanol industry complains that EPA's certification rules focus too heavily on a fuel's "volatility" (RVP) and not enough on its effects on air quality. Ethanol blends produce lower emissions of carbon monoxide than conventional gasoline and methanol, but increase the volatility of fuels. In the case of ethanol this can

⁸ The nine areas are those designated as Severe or Extreme and include Baltimore, Chicago, Houston, Milwaukee, Hartford, New York City, Philadelphia, San Diego and Los Angeles.

⁹ Credits shall be granted to those who refine, blend, or import and certify "gasoline or a state of gasoline" that has a greater oxygen content (by weight) than is required by section 211(k)(2); has an aromatic hydrocarbon content (by volume) less than is the maximum content required by section 211(k)(3); or has a benzene content (by volume) that is less than the maximum content required by section 211(k)(2).

result in a greater potential to form ozone.¹⁰ The majority of the options under analysis focus on ways for the regulations to deal with the issues of volatility and reducing VOCs. The fifth option simply provides a tax incentive for the use of ethanol.

ANALYSIS OF OPTIONS

Option 1 ("Two-standard" RFG Requirement).

Option 1 revises the reformulated gasoline (RFG) certification models in the following ways for Class C (Northern) ozone nonattainment areas included in the RFG program:

- A. Make the simple model RVP requirement more severe by lowering the required RVP for base gasoline from 8.1 psi to 7.2 psi.
- B. Under the complex model, require that VOC mass emission reduction requirements be increased from 15% to 30%.
- C. RFG that meets the oxygenate requirements with ethanol need only have an 8.1 psi RVP (simple model) or achieve a 15% reduction of VOC emissions (complex model).
- D. Provide emission credits for RFG that, under the simple model, achieves lower than a 7.2 psi RVP or, under the complex model, achieves more than a 30% reduction in VOC mass emissions.

Discussion

Provisions A, C, and D of Option 1, which seek a more severe RVP requirement than the 9 psi that is mandated by section 211(h)(1), would be permitted under the statute since the Administrator of the EPA ("Administrator") has the authority to make RVP requirements more stringent in nonattainment areas. CAAA section 211(h)(1). *Vocless*

Provision B would require VOC reductions to be increased from 15% to 30%, a change greater than any percentage reduction specifically described in CAAA section 211(k)(3)(B). However, we would argue that since this section provides the Administrator with flexibility to adjust the post-2000 25% reduction requirement "to provide for a lesser or greater reduction (emphasis added) based on technological feasibility, considering the cost of achieving such reductions in VOC emissions" it would be reasonable to assert that he could find it appropriate to increase the percentage of reductions prior to 2000 if the evidence would meet the statute's requirements for cost and feasibility. CAAA 211(k)(3)(B). In addition, adding further support for this argument, CAAA *1*

¹⁰ Ethanol's supporters point out that blended ethanol and gasoline has a lower reactivity than methanol or conventional gasoline, thus somewhat reducing VOCs. See discussion of option 3. *No*

section 211(k)(1) provides that the RFG rule for nonattainment areas "shall require the greatest reduction in emissions of ozone forming volatile organic compounds (during the high ozone season) and emissions of toxic air pollutants (during the entire year) achievable through the reformulation of conventional gasoline, taking into consideration the cost of achieving such emission reductions, any nonair-quality air quality related health and environmental impacts, and energy requirements." (emphasis added).

In fact, this interpretation of the statutory language has been recently employed by EPA in the RFG reg-neg which provides for a change in VOC reductions from 15% to 30% in the Southern non-attainment regions. A reasonable argument can be made that these two sections of the statute would support the Administrator's exercise of discretion to change the VOCs emission reductions to 30% if he had evidence of "technological feasibility" and cost effectiveness. Chevron USA, Inc. v Natural Resources Defense Council Inc., 467 U.S. 837 (1984) ("Chevron").¹¹

Provision D, which would provide for trading, is consistent with a new policy that EPA is about to establish providing for a sweeping ability to trade emissions credits under the CAAA.¹² This policy is based on a broad reading of the entire text of the CAAA and would provide that any party that reduces pollution below that level mandated by the Act would receive an appropriate amount of pollution credits to trade with other parties.¹³

The more difficult problem presented by Option 1 is whether its enactment by regulation is beyond the Administrator's delegated authority. Although, as we have shown, one can make a reasoned argument that the broad language of section 211(k) would, when coupled with the Administrator's Chevron authority, permit the Administrator to implement Option 1 by regulation, we believe that the more judicious (and defensible) conclusion would be that the Administrator lacks the ability under the statute to make such sweeping changes by regulation.

In order for the Administrator to implement the Option through regulation, he would need to present evidence which, under Chevron, need only be reasonable and not irrefutable that he has met the statute's requirements as described in CAAA sections 211(k)(3)(b) and 211(k)(4) for: cost effectiveness; technological feasibility; nonair-quality and other air-quality related health

¹¹ The Court in Chevron held that agency interpretation of its enabling statute should be granted deference if that interpretation is reasonable and the statutory language is ambiguous.

¹² The trading provision of CAAA section 211(7) is not applicable to paragraph D of option 1. As mentioned, 211(7) functions as an averaging tool and is not the kind of trading that is contemplated in paragraph D.

¹³ EPA is in the process of promulgating such a policy and anticipates finalization by the end of September. In addition to a general trading rule, a series of technical annexes to describe how to calculate credits in different circumstances will make up the EPA proposal.

and environmental impacts; and energy requirements. Based on the analysis performed by EP in its Ethanol Issue Paper, it does not appear that the Administrator would be able to sustain this burden. We would note the following:

- a) Cost -- EP's issue paper concludes that not only is there no cost advantage to using ethanol over other available oxygenates, but that this option would increase gasoline costs from between \$120 million to \$175 million.
- b) Environmental benefits -- There are no environmental benefits that other oxygenates can not offer and, in fact, recent EPA studies show that the use of ethanol can increase ozone non-attainment.
- c) Energy security -- It is true that ethanol is a domestically produced renewable resource and would provide energy supplies that arguably could reduce the country's dependence on imported oil. However, EP, and others have pointed out that the energy required to produce the farm products from which ethanol is made (petroleum based fertilizer and fuel for farm equipment) and the energy cost to refineries to manufacture ethanol equals the energy (BTUs) ultimately provided by the ethanol. EP points out that better alternatives exist. Although natural gas is not a renewable source, it is domestic, abundant and environmentally benign and can be used to make methanol.

In addition, we would add that it is clear that the Amendments call for a "fuel neutral" approach.¹⁴ Some critics of this option have argued that this option (and others) will inappropriately favor ethanol use. It is clear from a review of the statute and the provisions of this option that other fuels would be placed under more stringent regulation than is now required and that ethanol would be regulated under a standard that would be less stringent. See Option 1 at paragraphs A-C.

Finally, as EP has pointed out, the adoption of this Option raises other important policy issues including the impact on CAAA implementation. First, it would appear to undermine the results of the reg-neg process and, thus create uncertainty in the refinery industry as it begins to make the necessary investment in new equipment.¹⁵ It is also possible that states will choose to reject the Federal RFG program substituting their own (perhaps based on the more stringent California) program. The result could be a patchwork of state regulation that would do little to cost-effectively implement the RFG requirements of Title II.

¹⁴ Section 211's requirements e.g., for RVP (CAA 211(h)); and NOx emissions and oxygen content (CAA 211(k)(2)) pertain to all oxygenates, not just ethanol.

¹⁵ In May, Roger Beach, president of Unocal Refining and Chair of the National Petroleum Refiners Assn., said the "reg-neg" agreement was an uncomfortable compromise for our members [but] we signed because we sought certainty upon which refiners could base timely investment decisions. . . ." 70 Platts Oilgram News no. 98, at 3. (May 20, 1992).

Option 2 (Conditional "Two-Standard" RFG Requirements)

This would require implementation of Option 1 in a high ozone season only if it is first determined that sufficient, cost-competitive supplies of sub-RVP, non-oxygenated gasoline that otherwise meet RFG requirements (reformulated blendstock for oxygenate blending ("RBOB")) were not available to ethanol blenders in the prior ozone season. This test would be based on the ability of blenders to purchase sub-RVP RBOB at a price that is sufficiently close to normal RBOB to insure profitability of ethanol blending. This profitability is ultimately dependent on the relative prices of ethanol and other oxygenates and the price differences between sub-RVP RBOB, normal RBOB and certified RFG available in a nonattainment area.

Discussion

Option 2 would have all of the pros and cons discussed in the Option 1 analysis. However, it would suffer from an additional legal deficiency. While it is now a commonly accepted approach to consider the cost of environmental compliance when choosing among different environmental goals or compliance strategies, tying imposition of an entire regulatory scheme to the availability, at a certain price, of sub-RVP RBOB is an unusual stretch. There is nothing in the cost-effectiveness language of section 211 of the CAAA that would support this approach. Indeed, it is clear that the real mandata of CAAA section 211(k)(1) is to take costs into account when setting a given environmental standard, not to carve out a specific market share for ethanol.¹⁶ We believe that the litigation risks associated with Option 2 are quite high, even if an excellent record were to be developed by EPA to support the proposition that the maximization of ethanol usage in the RFG program is in our national interest. The inability of EPA to develop such a record, as was discussed in the Option 1 analysis, leaves this option vulnerable to a successful challenge.

Option 3 (Ethanol-Waiver)

This option provides for a 1-psi-RVP waiver for RFG that meets the oxygenate requirements for ethanol.

There is no statutory authority for this option. We understand that an argument has been developed by the ethanol industry lawyers that a 1 psi waiver can be granted because gasoline that is blended with ethanol produces VOCs that are lower in reactivity and, hence, when exposed to sunlight produces less ozone than a non-ethanol formulation at the same RVP. We further understand that this factual assertion is disputed by EPA, which believes that a reactivity differential, if any, would allow for only an RVP waiver between 0.2 - 0.3 lb.

¹⁶ "Such regulations shall require the greatest reduction in emission of ozone forming volatile organic compounds . . . , achievable through reformulation of conventional gasoline, taking into consideration the cost of achieving such emission reductions. . ." CAAA section 211(k)(1).

1-31-83
L. J. ERM
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p. 6, 10, 11
S. J. STRAIN
EPA
6-28-83

However, in our view, those factual differences aside, no RVP waiver can be granted to ethanol based on its allegedly lower reactivity -- the statute clearly proscribes reduction in mass VOCs and not reductions in ozone itself.¹⁷ CAAA section 211(k). The meaning of the statute is so clear here that we believe EPA, even drawing on the full ambit of Chevron, cannot administratively prescribe a 1 psi RVP waiver.

Furthermore, to grant a waiver for ethanol would be inconsistent with EPA's development of a "complex model" that will take into account the characteristics of a gasoline formulation that effects ozone formation. This complex model will take into account oxygen content, benzene, heavy metals, aromatics, RVP, sulfur, olefins, the temperature at which 90 percent of the fuel vaporizes (T90), as well as other parameters for which sufficient data are available regarding their effects on ozone-forming VOCs, toxic air pollutants, or NOx emissions.¹⁸ After the complex model has been adopted, the model will be used to determine whether a particular formulation would comply with EPA's standards. Thus, there is little justification for an ethanol waiver because EPA's complex model will take relevant characteristics of ethanol into account. An ethanol waiver would be redundant.

Option 4 (Conditional Ethanol Waiver)

This option is the same as Option 3 except that it would be implemented only if it is determined that sufficient, cost-competitive supplies of sub-RVP, non-oxygenated gasoline that otherwise meet RFG requirements (RBOB) are not available to ethanol blenders.

This option is subject to the same criticisms made of Option 3 and, like it, would not be legally sustainable.

Option 5 (Non-taxable Blenders' Credit)

This option amends the ethanol blenders' income tax credit to provide a ~~50-64~~ per-gallon non-taxable income tax credit for the ethanol-use to produce ETBE. The tax credit is taken by the entity that blends ETBE into motor fuel.

This option would require an amendment to Income Tax Regulation (25 CFR part 1) under section 40 of the Internal Revenue Code of 1985 (54 F.R. 48639). This option certainly would pass equal protection scrutiny.¹⁹ EP has pointed out

¹⁷ CAAA section 211(k)(3). The reductions under this subsection "shall be on a mass basis." Thus the statute focuses on reductions in mass VOCs rather than the reactivity of such emissions.

¹⁸ RFG NOPR, 57 Fed. Reg. 13416, 13417 (April 16, 1992).

¹⁹ See, e.g., Regan v. Taxation Without Representation of Washington, 103 S.Ct. 1997, 2001 (1983) (Statutory classification is valid if it bears a rational relationship to legitimate government purpose). Furthering use of ethanol to

See 211(k)(3)
2000-10-10

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11/10/92
11/10/92

that this option has several advantages over the other options under consideration, but, of course, these advantages may be out-weighed by its negative impact on the budget -- \$356 million for FY '92-97.

lessen dependence on imported oil and to ameliorate some environmental impacts would meet this test.

Issue Paper on Five Ethanol Options
Definition of Options

Option 1 ("Two-Standard" RFG Requirements)

Revise the reformulated gasoline (RFG) certification models in the following ways for Class C (Northern) nonattainment areas included in the RFG program:

- o Make the simple model RVP requirement more severe by lowering the required RVP from 8.1 psi to 7.2 psi.
- o Under the complex model, require that VOC mass emission reduction requirements be increased from 15% to 30%.
- o RFG that meets the oxygenate requirements with ethanol need only have a 8.1 psi RVP (simple model) or achieve a 15% reduction of VOC emissions (complex model).
- o Provide emission credits for RFG that, under the simple model, achieves lower than a 7.2 psi RVP or, under the complex model, achieves more than a 30% reduction in VOC mass emissions.

This option may or may not require legislation.

Option 2 (Conditional "Two-Standard" RFG Requirements)

Option 1 except that it would be implemented for the following ozone season only if it is determined that sufficient, cost-competitive supplies of sub-RVP, non-oxygenated gasoline that otherwise meets RFG requirements (RBOB) are not available to ethanol blenders in any given ozone season. This test would be based on the ability of blenders to purchase sub-RVP RBOB at a price that is sufficiently close to normal RBOB to insure profitability of ethanol blending. This profitability is ultimately dependent on the relative prices of ethanol and other oxygenates and the price differences between sub-RVP RBOB, normal RBOB and certified RFG available in a nonattainment area.

This option requires legislation.

Option 3 (Ethanol Waiver)

Provide a 1 psi RVP waiver for RFG that meets the oxygenate requirements with ethanol.

This option may or may not require legislation.

Option 4 (Conditional Ethanol Waiver)

Option 3 except that it would be implemented only if it is determined that sufficient, cost-competitive supplies of sub-RVP, non-oxygenated gasoline that otherwise meets RFG requirements (RBOB) are not available to ethanol blenders.

This option requires legislation.

Option 5 (Non-taxable Blenders' Credit)

Amend the ethanol blenders' income tax credit to provide a \$0.54 per gallon non-taxable income tax credit for the ethanol used to produce ETBE. The tax credit is taken by the entity that blends ETBE into motor fuel.

This option requires legislation.

Issue Paper on Five Ethanol Options
Advantages and Disadvantages
Option 1 ("Two-Standard" RFG Requirements):

Advantages

- o Might satisfy ethanol interests.
- o Could increase the use of ethanol in RFG.

Disadvantages

- o Requires investment in fractionation equipment that cannot be made quickly enough by 1995. These requirements cannot be met until 1997 or later.
- o In 1997 and later, would increase gasoline costs from \$120 million per year (minimum opt-in) to \$175 million per year (full opt-in) simply due to more stringent RVP requirements.
- o Would invalidate the reg-neg and cause RFG rules to become highly uncertain, causing additional increased costs to the refining industry.
- o Most states with nonattainment areas will prohibit the sale of 8.1 RVP gasoline (simple model) or 15% VOC gasoline (complex) model and thus defeat any benefit to ethanol this option provides for that state.
- o Many states may reject the Federal RFG program in its entirety and substitute their own RFG program, perhaps modeled after California's RFG program.
- o Could disrupt gasoline supplies and make RFG more costly because refiners would face a patchwork of differing state requirements instead of a standard Federal requirement. These costs can not be easily estimated but would be measured in billions of dollars.
- o The legal authority for EPA to implement two RFG standards, one for ethanol and one for all other oxygenates, must be based on the "energy requirements" of RFG. It will be quite difficult to show that ethanol's energy requirements are substantially different than MTBE's energy requirements in terms of the fossil fuels that are used to produce each oxygenate, especially since the methanol/MTBE industry will assert that it is prepared to build substantial domestic capacity using domestic natural gas.
- o The manipulation of Clean Air Act RFG requirements to pacify ethanol interests will be transparent.

Issue Paper on Five Ethanol Options
Advantages and Disadvantages
Option 1 ("Two-Standard" RFG Requirements):
(continued)

- o Will dramatically increase costs of compliance for U.S. refiners, potentially resulting in more lost refining industry jobs (142 refineries have been shut down since 1980 and Clean Air Act and other environmental requirements threaten to shut down many more).

Conclusion

With large economic costs, likely disruption of the Clean Air Act, and questionable legal authority, this option should be rejected.

Issue Paper on Five Ethanol Options
Advantages and Disadvantages
Option 2 (Conditional "Two-Standard" RFG Requirements)

Advantages

- o Could increase the use of ethanol if RFG.

Disadvantages

- o Would not likely satisfy ethanol interests due to the uncertainty and delay caused by the administrative determination of the availability of sub-RVP gasoline (conditionality process).
- o The conditionality process requires new legislative authority and undercuts any arguments EPA can make about why the "energy" requirements of ethanol justify two RFG standards. If these "energy" requirements justify a lower environmental standard for ethanol, this lower environmental standards should not be conditional on relative ethanol and MTBE prices.
- o The environmental opposition to such a legislative proposal would be substantial. In addition, the Administration could end up fighting legislation that is precipitated by opening up the Clean Air Act.
- o The other disadvantages of option 1 also apply to this option.

Conclusion

Since this option is unlikely to satisfy the ethanol interests, must be achieved through legislative action, and has essentially all of the problems associated with option 1, large economic costs, refining industry job losses and disruption of implementation of the Clean Air Act, this option should be rejected.

Issue Paper on Five Ethanol Options
Advantages and Disadvantages
Option 3 (Ethanol Waiver)

Advantages

- o Would satisfy ethanol interests.
- o Would increase the use of ethanol in RFG.

Disadvantages

- o Requires EPA to determine that adding ethanol to RFG does not contribute to urban ozone formation. EPA does not believe that this view is scientifically supportable.
- o Would increase VOC emissions in RFG control areas with additional control offset costs of from \$375 million (minimum opt-in) to \$510 million (full opt-in).
- o Would invalidate the reg-reg and cause RFG rules to become highly uncertain, increasing costs to the refining industry.
- o Most states with nonattainment areas would prohibit the use of ethanol in RFG in order to maintain the air quality benefits of RFG, thus invalidating the EPA waiver.
- o Many states may reject the Federal RFG program in its entirety and substitute its own RFG program, perhaps modeled after California's RFG program.
- o Could disrupt gasoline supplies and make RFG more costly because refiners would face a patchwork of differing state requirements instead of a standard Federal requirement.
- o The manipulation of Clean Air Act RFG requirements to pacify ethanol interests industry will be transparent.
- o Substantial environmental opposition.

Conclusion

With increased VOC emissions and likely disruption of the Clean Air Act, this option should be rejected.

Issue Paper on Five Ethanol Options
Advantages and Disadvantages
Option 4 (Conditional Ethanol Waiver)

Advantages

- o Might satisfy ethanol interests.
- o Would increase the use of ethanol in RFG.

Disadvantages

- o Would not likely satisfy ethanol interests due to the uncertainty and delay caused by the administrative determination of the availability of sub-RVP gasoline (conditionality process).
- o The conditionality process requires new legislative authority and undercuts any arguments EPA can make about why the "energy" requirements of ethanol justify two RFG standards. If these "energy" requirements justify a lower environmental standard for ethanol, this lower environmental standard should not be conditional on relative ethanol and MTBE prices.
- o Requires EPA to determine that adding ethanol to RFG does not contribute to urban ozone formation. EPA does not believe that this view is scientifically supportable.
- o The conditionality process would undercut any argument about why adding ethanol to RFG does not contribute to ozone formation. If ethanol does not contribute to ozone formation, there is not reason to make the RVP waiver conditional on the economics of the ethanol industry.
- o The environmental opposition to this proposal would be substantial making it unlikely that the Administration could be successful. In addition, the Administration could end up fighting legislation that is precipitated by opening up the Clean Air Act.
- o The other disadvantages of option 3 also apply to this option.

Conclusion

This option must be achieved through legislative action. Since it has essentially all of the problems associated with option 3, including large economic costs and disruption of the Clean Air Act, this option should be rejected.

Issue Paper on Five Ethanol Options
Advantages and Disadvantages
Option 5 (Non-taxable Blenders' Credit)

Advantages

- o Would increase the use of ethanol in the most environmentally beneficial form - ETBE, and in a manner refiners find most attractive (Amoco and ARCO are building ETBE plants).
- o If a revenue offset were provided, this legislative proposal should be relatively easy to enact.
- o Would not endanger implementation of Clean Air Act or withdrawal of states from Federal RFG program.
- o Has much lower economic cost than other options.
- o Would not increase costs or job losses in the U.S. refining industry.

Disadvantages

- o May not satisfy ethanol interests.
- o Would create budget cost of \$356 million for FY'92 through FY'97 and requires equal revenue offset.

Conclusion

While ethanol interests may not be entirely satisfied with this option, the Administration is providing the industry the most environmentally acceptable way to use ethanol in summertime RFG. Since ethanol's use is unrestricted in the other two-thirds of the year, this should be enough. While this option does require a revenue offset, compared to the economic cost of the other options, it is relatively inexpensive.

**Ethanol in
Reformulated Gasoline**

Briefing to the

Administrator

7/9/93

8/5

Presentation Overview

- 3 Main Issues for Reform FRM
 - Complex Model
 - Phase II Standards (NOx)
 - Provisions for Ethanol in RFG
- Ethanol in RFG
 - Historical Perspective
 - Reg Neg
 - Background on Ethanol
 - The Ethanol Debate
 - Bush Compromise
 - EPA Concerns with Proposal
 - Response to the Proposal
 - Options for Ethanol FRM

Historical Perspective

CAAA Deadline	November 1991
NPRM	July 1991
Reg Neg Agreement in Principle	August 1991
SNPRM	April 1992
FRM Scheduled for	November 1992
Bush Announcement on Ethanol	October 1992
SNPRM Published	February 1993
<u>Waxman</u> Court Order for FRM	September 1993
Program Begins	January 1, 1995

Reg Neg

Participants: Big and Small Oil, Oxygenate Producers, Auto, Environmentalists, States, Gasoline Marketers, Federal Gov't

Insufficient information at the time to completely model emissions vs fuel parameters

Compromise reached to promulgate:

Simple model FRM by 11/92 for use in 1995

Complex model FRM by 3/93 for use in 1997 (4-year lead time if not)
Key tradeoffs involved: performance averaging, performance stds for southern states, and simple anti-dumping program

Simple Model:

Summer RVP spec for all fuels for evap

Oxygen spec for Exhaust VOC

Oxygen caps for NOx

Maximum 5.7% ethanol (10% blends require use of complex model)

Ethanol industry signed with full knowledge

Background on Ethanol

Ethanol, like other oxygenates added to gasoline significantly reduces CO emissions to help in CO attainment during the winter

Ethanol mixed as an alcohol with gasoline increases ozone during the summer increases gasoline volatility by 1.0 psi RVP
Volatility increase magnified due to commingling in-use

Pollutant	Relative to RFG	Relative to Cony Gasoline
Total VOC*	33%	33%
Reactivity Adjusted VOC**	22%	14%
NOx	little change	little change

* Includes distillation and commingling estimates ** Calculated from total VOC using CARB reactivity adjustments

Heavily subsidized

54 cent/ethanol gallon Federal subsidy for ethanol
Many states have additional subsidies of 20-30 cents/ethanol gallon

With subsidies ethanol is economical

Relative to gasoline - Roughly 8% of gasoline contained 10% ethanol (gasohol) prior to CAAA

Relative to other oxygenates in winter Oxy-Fuel Program and Winter RFG
EPA believes it is also economical in Summer RFG

Background on Ethanol (Cont)

Historically marketed by splash blending into delivery trucks
 Alcohols incompatible with petroleum distribution system
 Produced in different location than gasoline
 Easy to do since not dependent on a special gasoline blendstock

Ethanol interests want to continue splash blending

Splash blending is not as easy under reform
 Needs "clear" gasoline blendstock - free of other oxygenates
 Finished fuel must meet reform stds and refiners need certainty that it will

Ethanol concerned about being labelled a "dirty fuel" and losing State support

Ethanol could be used to produce ETBE
 No distribution system concerns, can be blended at the refinery
 All the emission benefits of ethanol, none of the detriments
 Reduces volatility of the blend instead of increasing it
 At the moment not economic
 No published health studies

Ethanol Lobby

Ethanol industry lobbied Congress and Administration that EPA's proposal unjustly excluded ethanol from the reform market

Their arguments:

Domestic source of energy

Reduces oil imports

Improves energy security

Reduces trade deficit

Renewable energy source

Global warming benefits

Endless supply - plenty of vacant land

Good farm policy

Reduces farm subsidy payments

Improves value of farm products

Farm related jobs

Need year-round market to remain competitive - winter only is inadequate

Ethanol Lobby

Ethanol Industry Position

Need a 1.0 psi RVP waiver

To allow splash blending of ethanol into reform

Intent of Congress in the CAAA

EPA granted it under volatility control rule

Justified by ozone reactivity - Same or greater ozone benefits as RFG

If no outright waiver, focus on ozone reactivity instead of VOC mass

CO emission reductions reduce ozone

VOC emissions from ethanol blends are less reactive

Many other air quality benefits

Air quality modeling proves it

Statutory Provisions

RVP Waiver:

Provided under 211(h) for nationwide volatility standards
Consistent with prior EPA volatility rulemaking

Not provided under 211(k) for reformulated gasoline
All RFG has to meet the same minimum performance stds

Reactivity:

CAAA requires reductions in "ozone forming VOCs" for RFG

CAAA clearly specifies mass basis, not reactivity for minimum RFG stds

CAAA require mass basis for State's 1996 and later reasonable further
progress requirements as well

EPA Understanding

Legally:

OGC and DOJ concluded in Fall '92

1.0 psi RVP waiver under 211(h) does not apply to RFG

No basis for a reactivity based approach for minimum RFG stds

EPA's Phase I stds are the minimum required by the Act (in North)

Only if EPA set stds beyond the minimum could reactivity be used - as long as the minimums are still met on a mass basis

Reactivity can be used to determine what is an ozone forming VOC

Agency currently excludes methane and ethane

No technical basis for changing definition in a way that would be beneficial to ethanol

EPA Understanding

Technically:

With a 1 psi waiver, ethanol blended RFG would increase not decrease VOC emissions and still couldn't be splash blended as it is now

Adjusted for reactivity, VOC emissions still increase, especially relative to other RFGs

CO benefit is small and only relative to conventional gasoline

VOC composition similar between RFG blends

Only "mitigating factor" is that emission increases are evaporative which tend not to react as quickly as exhaust

Risky going down the reactivity path

State of the science is weak and increasingly uncertain/controversial

Relative reactivity of VOCs are dependent on ambient conditions

Difficult/impossible to apply on a Nationwide basis

Inclusion of reactivity in RFG would reduce the mass benefits States could claim toward their 15% VOC requirement for RFG

Consideration of reactivity would have serious ramifications for many other EPA air programs

Emissions and Reactivity Spreadsheet Analysis

Oxygenated REGs Compared to CAA Baseline Gasoline (8.7 RVP)

	MTBE	Ethanol	Ethanol	ETBE
Wt% Oxygen	2.0	2.0	3.5	2.0
Blend RVP	8.1	9.1	9.1	8.1
Exhaust VOC	-8%	-4%	-7%	-9%
Non-Exhaust VOC	-8%	+5%	+5%	-8%
Total VOC	-16%	+2%	-2%	-17%
Distillation	+2%	+10%	+10%	0%
Commingling	N/A	+8%	+8%	N/A
Adjusted Total VOC	-14%	+19%	+17%	-17%
CO Reactivity Adj.	-2%	-2%	-4%	-2%
VOC Reactivity Adj.	-0%	-11%	-11%	+2%
Total Ozone	-16%	+6%	+2%	-17%

Ethanol Lobby's Ozone Modeling

Illinois Corn Growers in Fall '92

Numerous assumptions aimed at stacking the deck

Not an RFG scenario - attributed to ethanol a benefit for extra oxygen which would not occur under oxygen averaging

Ignored commingling and distillation effects

Assumed mobile sources only 5% of inventory

Picked and chose among studies for emission speciation profiles

Unvalidated Episode/Model used, etc.

Still showed an ozone increase of 0.05%

Result low but not too unexpected given their assumptions and that VOC increased by only 0.6% in their scenario

Council of Great Lakes Governors (Pending)

Correcting some problems adding new ones

Inflating EPA's exhaust inventory estimates for "Enrichment"

Assuming benefits on Non-road

Still picking and choosing speciation profiles

Doing sensitivity runs to evaluate other assumptions

Calendar year

Oxygen content of scenarios

Commingling,

Gasoline Volatility Decision

EPA granted ethanol a 1 psi waiver in the 1989 gasoline volatility rule

Without waiver would have eliminated ethanol market nationwide
Would have gone counter to Congressional subsidy

Ethanol blend's volatility reduced by same amount as other gasoline
Started 1.0 RVP higher prior to rule, still 1.0 RVP higher after

Environmental detriment of waiver minor in comparison to emission
benefits of the rest of the rule
Gasohol only 8-10% of market

Exhaust VOC and CO emission and reactivity benefits reduce
environmental losses relative to conventional gasoline - this is not
true relative to RFG

Ethanol use not expected to rise as a result of the waiver which would
increase the environmental loss

Bush Compromise Proposal

Announcement on October 1, 1992

Neither a "net" waiver nor inclusion of reactivity

**Allowed 30% of RFG to have ethanol with higher RVP, but
RVP increase made up by other 70% (lower RVP)**

Various other incentives

Unrestricted early use of the complex model

Incentive also applied to ETBE

Support for ETBE tax break

Concerns With Ethanol Proposal

Violates Spirit of Reg Neg and may jeopardize future Reg Negs

Substantial Legal Problems:

To justify legally need to show that ethanol's energy and other benefits are substantial enough to override environmental impact

Can't do - no significant energy benefits, not more cost effective

Even if ethanol had clear cost and energy benefits, it would be a clear legal stretch to turn an environmental regulation into an economic subsidy/energy regulation (vs tax credits, energy requirements, etc.)

Justification in proposal almost non-existent

Providing justification now without reproposing violates notice and comment reqts

Significantly increases the risk of litigation on not only this, but many other elements of the RFG program

Concerns with Ethanol Proposal

Not Environmentally Neutral:

Bush proposal supposedly environmentally neutral, but ignored certain significant impacts

Commingling

Distillation effects on evap other than RVP

Unrestricted early use of the complex model

30% market share for ethanol (at matched RVP) and unrestricted early use increase gasoline vehicle related VOC emissions by approx. 10%

Potential for temporal peaks in ethanol use could result in larger emission increases under worst-case ozone conditions

States would be required to make up the loss in other more burdensome and costly ways

States are already having difficulty getting the necessary reductions

Offsetting the VOC Increase of Ethanol Proposal

Ethanol proposal increases mobile source VOC emissions by 6% (approx. 2% increase in total VOC inventory) relative to the adjusted 1990 baseline

Roughly equivalent to:

- all aircraft and vessel emissions
- 1/2 of all service station refuelling emissions
- 1/3 of all consumer solvent and landfill emissions

Possible programs to offset the VOC increase:

Roughly equivalent of all feasible TCMs

Some of which are already being done by the States

Non-Road usage restrictions could more than offset, but are difficult to implement and enforce

More stringent enhanced I/M than required could offset some, but difficult to do by 1996

Additional point or area control measures would be costly

Concerns With Ethanol Proposal

Other Concerns:

Burdensome and Complex:

Requires the refiners to control the destination of their fuel to ensure emission increases from ethanol are offset in each covered city

Major disruption of current fuel distribution infrastructure and extremely costly if not impossible to comply

Large EPA enforcement burden

Increased ethanol sales result in increased gov't expenditure

Highway Trust Fund or general budget

Lower farm subsidies possible

Oil industry required to subsidize ethanol industry
(13.7 cents/gal ethanol)

Continuing Ethanol Pressure

Ethanol has rejected the Bush compromise and our recent proposal
"Not a viable option"
"[Enforcement] too complex and convoluted and may work to prevent the use of ethanol"
"Far too complicated to be effectively used"

Ethanol contends that the only acceptable solution is a 1.0 psi RVP waiver on the basis of reactivity
It is just an "accounting problem" not an air quality issue
Seeking a "scientific" resolution

The current ethanol industry may have nothing to lose by holding out
If successful, they dominate market
If they delay implementation of RFG
Ethanol profitable without reform
Time to obtain legislative fix

Other Player's Positions

Oil Industry:

- Not a workable option
- If forced, costs to consumers will be high

Auto Industry:

- Not workable in present form
- Simplify and limit it to 2 years

Environmentalists/States:

- Causes environmental detriment
- Violation of Reg Neg
- Interferes with SIP planning
- Increased cost
- Not workable

Methanol Industry:

- Not equitable
- How much of a subsidy is ethanol going to get
- Let them compete like the rest of us

Farm Lobby: Allied with ethanol

Options for Ethanol FRM

Promulgate ethanol proposal modified as best we can to address concerns

Revert to Reg Neg

In conjunction could show support for other pro-ethanol actions in lieu of ethanol proposal

Promulgate Modified Proposal

- Could simplify the proposal and/or make it more pro-ETBE
- Eliminate complicating provisions aimed at maximizing ethanol RVP trading
 - Forfeiting and allocation of unused ethanol
 - Unrestricted early complex model use
- Allow refiners to blend as much ethanol as they want as long as within a city the 30% limit is not exceeded and restrict maximum RVP of ethanol blends to less than 1.0 psi Increase (USDA recommendation)
- Allow less ETBE to count as more ethanol or even restrict the program to ETBE only

Pros:

- Less VOC emission increase than proposal (Less ethanol use)
- Somewhat less burden on Oil and EPA

Cons:

- Refiners still required to track their fuel to each city under averaging
 - May force per-gallon compliance to avoid it
 - Still no energy, or environmental justification
 - Still burdensome
 - Won't satisfy anyone
 - Serious legal problems

Revert to Reg Neg

Address legal issues head-on:

- No authority for: waiver, reactivity adjustment**
- No justification for special treatment**

Pro:

- Maintains Reg Neg**
- No increase in VOC**
- Reduces cost**
- Legally, technically defensible**

Con:

- Would be portrayed as lack of support for "Domestic" "Renewable" Fuels**
- Political pressure from:**
 - Ethanol lobby, Farm lobby, Pro-Ethanol Governor's, Representatives, Senators**

Support for Other Pro-Ethanol Actions

Possible Options:

Non-taxable tax credit for ETBE
Governor's Ethanol Coalition Mandate for 30% renewables
Fuels for America Proposal from Governor Nelson of Nebraska

Pros:

Supports renewables while protecting the environment
Deflects some political pressure - Could satisfy farm lobby

Con:

Beyond EPA's control - Requires Congressional Action

Non-Taxable Blender's Tax Credit For ETBE

- Shifts ethanol subsidy from Highway Trust Fund to general fund
- Eliminates Federal revenue resulting from taxes collected on the 54 cent/gal ethanol subsidy (18 cents/gal ethanol)

Pros:

- Environmentally neutral - no commingling, no distillation effects
- Previously supported by USDA, DOE, EPA
- Refiners can blend: Easiest way for renewables to obtain widespread use

Cons:

- Could significantly increase demand for ethanol, increasing Fed budget deficit
- Volume could be capped (per gallon or per company), could be scaled for competition with MTBE, but entitlement problems
- Methanol industry still being squeezed
- Health effects of ETBE not yet studied

Governors' Ethanol Coalition Mandate

Mandate for 30% Renewables in RFG (Independent of RFG rulemaking)

Pros:

Essentially same ethanol market demand as RFG proposal
Provides certainty of market leading to development of renewables to compete with ethanol
EPA free to require that ethanol blends meet environmental stds
Clinton was one of 16 governors to support it in June, 1992 (during campaign)

Cons:

Commingling/Distillation still exist unless incorporated into the complex model, which would likely cause a shift toward ETBE
Still a burden on refiners to reduce RVP (unless shift to ETBE)
Still requires clear gasoline for ethanol blending (unless as ETBE)
Enforcement of 30% required but relatively simple
Already rejected once by ADM

Nebraska's "Fuels for America" Proposal

Market-based program to ensure 20% of transportation fuels from new domestic sources, 3% from renewable resources by the year 2000

Pros:

- Benefits for Ethanol, Oil, Environment
 - Revitalizes domestic oil industry, stimulates demand for alternative fuels
- 4-fold increase in demand for renewables
- Stimulates national economic growth
- Creates 1 million new jobs - 7 times more per dollar than typical government spending
- Provisions for renewables reduces global warming

Cons:

- Could be criticized as being protectionist (like other incentives)
- Could increase fuel cost by 2-3 cents per gallon
- Greater subsidy burden (but with a mandate the need for a tax subsidy is eliminated)

Timing is Critical

Decisions needed now on path to take

Sept 15, 1993 Waxman Deadline

Running out of lead-time for Refiners for 1995

Delays in ethanol decision could delay other RFG provisions

Need time to work decisions within the Administration

Mr. DINGELL. The Chair recognizes the gentleman from California, Mr. Waxman.

Mr. WAXMAN. Thank you, Mr. Chairman.

Mr. Watson, I have in my hand a copy of a March 1994 State Department cable sent to the U.S. Ambassador to Venezuela. This cable which has been leaked all over town and reprinted in the trade press, outlines a deal to be offered to Venezuela, and without objection, I would like to put this cable in the record at this point.

Mr. DINGELL. Without objection, so ordered.

[The information follows.]

PAGE 01
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 25/11/78 AN ANA (NY) (NY) (NY) (NY)

060100 0
 060100Z THESE PUBLIC COMMENTS OCCURE THE PROPOSED RULE
 CAN BE FINALIZED.

--THE GOV WOULD, OF COURSE, RETAIN ITS RIGHT TO A GATT
 PANEL SHOULD PROCEED BE THIS ISSUE NOT CONCLUDE.

--WE WOULD APPRECIATE YOUR ADVISANCE THAT OUR PROPOSAL
 MAY BE MADE PUBLIC, AT LEAST FOR SEVERAL DAYS, TO PERMIT
 US TO IMPROVE OUR DOMESTIC INTERESTS.

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 O O F F I C E O F A L I A T E S E C R E T A R Y

2. SEPTEMBER COMPROMISE: A FOREIGN REFINER WOULD NOT BE
 ALLOWED TO ESTABLISH AND USE ITS OWN BASELINE FOR
 CONVENTIONAL GASOLINE EXPORTED TO THE U.S. ALL FOREIGN
 CONVENTIONAL GASOLINE WOULD BE HELD TO THE STATUTORY
 BASELINE AS SPECIFIED BY U.S. REFINERIES GASOLINE
 REGULATIONS ISSUED DECEMBER 19, 1963. REGARDING
 REFORMULATED GASOLINE, A FOREIGN REFINER WOULD BE
 ALLOWED, IF VERIFIED TO SPA'S SATISFACTION, TO CAP ITS
 SULFUR, THE 0.1001 AND OXYGEN LEVELS OF THAT REFINER'S
 1980 LEVELS, BUT ONLY FOR YEARS BEGINNING IN 1981, 1984
 AND 1987, EQUAL TO THE FOREIGN REFINER'S 1980 GASOLINE

S. O. 12304: DECL: OADR
 TAGS: EFTY, ETRG, ETIO, GATT, INTL, VC
 SUBJECT: TALKING POINTS FOR AMBASSADOR DAVIDSON REGARDING
 RESOLUTION OF REFORMULATED GASOLINE DISPUTE

EXPORTS TO THE UNITED STATES. ANY ADDITIONAL VOLUMES OF
 REFORMULATED GASOLINE WOULD BE HELD TO THE STATUTORY
 SULFUR LEVELS OF SULFUR, 0.10 0.1001 AND OXYGEN
 FOREIGN REFINERS WOULD BE HELD TO A STANDARD OF
 EMPLOYMENT TO DOMESTIC REFINERS IN EQUIPMENT,
 HUMANITING AND DOCUMENTATION REQUIREMENTS.

REF: 00 0A 000000 1000, 01 0A 000000 3340

DISPATCH
 0730Z

A. REPRESENTATIVES OF STATE, USTR, EPA, DOE, AND THE
 WHITE HOUSE MET AND DISCUSSED THE U.S.-VENEZUELAN
 REFORMULATED GASOLINE (RFG) DISPUTE ON MARCH 14. THE
 GROUP DISCUSSED TWO OPTIONS DEVELOPED BY EPA: 1) RETAIN
 THE FINAL RFG RULES, AND 2) ACCEPT FOREIGN REFINER
 BARGAINING WITH VOLUME CAP (THE SEPTEMBER COMPROMISE).
 THE INTER-AGENCY GROUP AGREED THAT THE USA SHOULD OFFER
 THE GOV THE SEPTEMBER COMPROMISE. HOWEVER, IN RETURN,
 THE GOV WOULD HAVE TO AGREE TO NOT GO AHEAD WITH ITS
 REQUEST FOR A GATT PANEL AND NOT PUBLICIZE THE DECISION
 UNTIL THE USA HAD TIME TO CONSULT WITH CONGRESS AND OTHER
 INTERESTED PARTIES. AS EVIDENCE OF THE USA'S GOOD FAITH,
 THE EPA WOULD SIGN THE PROPOSED CHANGES IN THE RFG RULES
 BY APRIL 21 (ONE LAST DAY FOR PUTTING ITEMS ON THE AGENDA
 FOR THE NEXT GATT MEETING IN MAY). TALKING POINTS FOR
 AMBASSADOR'S MARCH 16 MEETINGS WITH GOV OFFICIALS ARE

PROVIDED IN PART 3. AN EPA-APPROVED DESCRIPTION OF THE
 SEPTEMBER COMPROMISE IS PROVIDED IN PART 4.

B. TALKING POINTS:

--THE U.S. ADMINISTRATION YESTERDAY DECIDED IT WAS
 WILLING TO MOVE FORWARD WITH A PROPOSED RULE ON
 REFORMULATED GASOLINE (RFG) WHILE IT ADAPTED WORK BEYOND
 THE RULE PROPOSED BY US DECEMBER 19, 1980. THE PROPOSED
 RULE WOULD ALLOW FOREIGN REFINERS TO ESTABLISH VERIFIABLE
 INDIVIDUAL BASELINES FOR RFG WITH A VOLUME CAP. THIS
 PROPOSED RULE IS CONSISTENT WITH THE "COMPROMISE"
 INFORMALLY DISCUSSED WITH THE GOV LAST SEPTEMBER.

--THIS "COMPROMISE" IS THE FINAL OFFER WE ARE PREPARED TO
 MAKE TO RESOLVE THIS ISSUE AND IS CONDITIONAL ON THE
 GOVERNMENT OF VENEZUELA AGREEING TO ACCEPT OUR REQUEST FOR
 THE FORMATION OF A GATT PANEL AT THE MARCH 22 GATT
 COUNCIL AND NOT REQUEST IT DURING OUR RULE-MAKING
 PROCESS.

--A PANEL REQUEST IN THE MIDDLE OF OUR RULE-MAKING
 PROCESS COULD LEAD SOME TO QUESTION WHY WE ARE PROPOSING
 A REVISED RULE THAT FAILS TO RESOLVE THE DISPUTE.

--THE GOV HAS SIGN THE PROPOSED RULE BY APRIL 21 FOLLOWING

Mr. WAXMAN. In essence, the cable explains that Venezuela agrees to abandon its GATT challenge if the USEPA will propose revisions to its final Clean Air Act rulemaking on reformulated gasoline to allow the Venezuelan oil company to establish its own baseline, something the rule currently prohibits. The cable expressly provides that the Venezuelan government must agree not to publicize the matter until the U.S. Government has time to consult with Congress and other interested parties.

Mr. Watson, leaving aside for a moment the troubling question of whether the State Department should be informing the Venezuelan government of policy decisions before they are shared with Congress or other interested parties, I would like to ask you what the State Department means by the term "consult" as it is used in that cable?

If that is—if what's anticipated here more along the lines of simply informing the Congress and others of this policy?

Mr. WATSON. Well, Mr. Waxman, I was not in the March 14 meeting myself which produced the instruction that this cable was designed to implement. But my understanding from one of my colleagues that was in that meeting was that the intention was to discuss the question with the Congress as soon as it—the basic idea had been passed by the Venezuelans to see if they had found it at all reasonable and we expected an answer immediately from them. Unfortunately, they did not answer for a week. It was much longer than anticipated.

But perhaps I should defer to others who are in that meeting at that time, Mr. Waxman, to give you more precise response.

Mr. WAXMAN. It is really not just a question of just a meeting. It is a question of what the cable said. And I can't see how you can consult in any meaningful way with the Congress, when the State Department, as per the words of this cable, had already committed to a specific course of action.

The cable describes a commitment to a foreign nation that State certainly wouldn't have turned around in reverse so, what did it mean to "consult" with us?

Mr. WATSON. The commitment, sir, was simply to move forward with a proposed rule. It wasn't anything definite. And as has been mentioned by several of us in our testimony this morning, there was no specific guarantee ever given to the Venezuelans what the precise outcome of this process would be.

It was that we were not even prepared to go forward with a proposed rule, putting it out for public discussion—unless the Venezuelans were willing to agree to those conditions that are stated so clearly there.

Mr. WAXMAN. Like almost everyone else who follows these matters, I first learned about EPA's intention to propose this revision to the reformulated gasoline rule in trade press accounts of the State Department cable.

Does it strike you as appropriate for the Department of State to be, in effect, announcing EPA policy; and can you tell us please what role Congress reserved for the State Department in making clean air policies?

Mr. WATSON. Well, as Sally Katzen mentioned in her testimony earlier, Mr. Waxman, the normal course of events, it is the State

Department that transmits the messages to foreign governments and receives them back from them. And as you can see from this telegram, that there was a meeting of a variety of executive branch agencies which produced an instruction, and the State Department was simply the agent sending that instruction forward to our embassy and asking our ambassador to convey it to the Venezuelans and get their agreement, which he did succeed in doing and reported back a week later when they replied.

So what the State Department is doing here, Mr. Waxman, is conveying to a foreign government, and in very specific points which the ambassador was to use, what the executive branch, what the administration's proposal to the Venezuelan government was.

Mr. WAXMAN. You don't maintain that the Clean Air Act gives authority to everybody in the executive branch to decide on regulations to enforce the Clean Air Act; do you? It specifically says that the Environmental Protection Agency may promulgate those regulations; isn't that your understanding of the law?

Mr. WATSON. I certainly would not disagree with that.

What I was trying to say is what was happening in this case is that the Department of State was transmitting a message from the administration here—

Mr. WAXMAN. But in that other memo where there is a paragraph rightfully called the "end game," says: This would have the advantages of preventing the EPA from going at it alone without the involvement of other interested agencies. Preventing the EPA from going it alone. Doesn't EPA have the legal authority to go it alone on regulations?

Mr. WATSON. Of course, it has the authority to determine the regulations, and that's what—precisely what it is doing.

Mr. WAXMAN. In fact, when EPA promulgates a regulation, it has to scrupulously follow the mandates of the administrative procedures action.

Are you familiar with that law, Mr. Watson?

Mr. WATSON. Yes, sir.

Mr. WAXMAN. That law establishes very strict rules to ensure that public comment is carefully considered by the responsible agency. And in the promulgation of regulatory actions, it is my fear that the cable we have been discussing indicates that the administration is committed to a specific course of action and does not in fact intend to give genuine consideration to comments received in the formal rulemaking process surrounding revision of the reformulated gasoline rule.

The cable describes a scenario where Venezuela takes a specific action, or rather refrains from taking one, and the United States in return takes a specific regulatory action. If we fail to take that action, Venezuela will file a GATT challenge, something the administration has made quite clear it wished to avoid with this kind of pressure.

Do you really expect that the revision of the RFG rule will be genuinely open to revision or withdrawal as a result of the public comment process?

Mr. WATSON. Well, I certainly can't speak for EPA and how it was going—how it is going to go through the rulemaking process, because that's entirely within its province. What I tried to say a

minute ago was that my understanding of the decision arrived at on the 14th was to convey to the Venezuelans the idea that if they took certain action, or refrained from taking certain action, the EPA will put forward a proposed rule, proposed rule for public comment, following all the rulemaking procedures, with no guarantee what the result of that process would be.

Mr. WAXMAN. And if that proposed rule were not finalized, what would happen?

Mr. WATSON. If that proposed rule were not finalized—

Mr. WAXMAN. There would be a GATT challenge. If you are offering Venezuela: Don't challenge us under GATT because we are going to go with this proposed rule.

They are not satisfied with the proposed rule, they want a final rule that is going to be in their interests, isn't that what you would expect?

Mr. WATSON. They would certainly be within their rights to go to the GATT. But that—

Mr. WAXMAN. That was a quid pro quo from your negotiations with Venezuela. You were negotiating with Venezuela not to do something in exchange for which—not that you just give them a proposed rule out there for which others can comment, but that they are going to hope—they are going to expect to get this rule the way they want it.

Mr. WATSON. Well, the arrangement proposed here was that they would suspend their efforts with the GATT while the proposed rule was put to—through the normal procedures here.

Mr. WAXMAN. That was a temporary suspension?

Mr. WATSON. Temporary suspension, sure.

Mr. WAXMAN. I am interested in learning more about the State Department's involvement in this rulemaking. It is my understanding that your Agency has submitted to this committee a voluminous collection of documents on the matter.

Unfortunately, the bulk of these materials are apparently classified by the State Department as "secret," which means while I am free to personally wade through these boxes of documents, my professional environmental staff who has worked for this committee on these issues for more than a decade, is not.

I would like to know why we would have such a restriction on the ability of the staff to review these documents—the first time it has ever been necessary for my staff to have "top secret" clearance to do Clean Air Act work, I think it is a ridiculous situation.

I would have hoped this administration would resist that ever-present government inclination to classify everything around as a "national security secret."

Let me be very clear, I don't think we can tolerate a situation where the State Department is meddling in EPA rules and then turning around and claiming that the relevant documents concerning the Department's involvement are "secret." Under the terms of the Administrative Procedures Act, these documents belong in the public docket for this rule.

Mr. Watson, I request that you work with us and this subcommittee and the Subcommittee on Health and the Environment to secure whatever reclassification of these documents is going to be needed to provide to public access. And I further ask that you

assist us in promptly securing whatever clearance is necessary to have unrestricted access to all relevant documents; will you do that?

Mr. WATSON. Certainly.

Let me just say, I don't think the State Department has been meddling in EPA's rulemaking. Our participation in this process has been completely legitimate in accordance with Executive Order 12866, and in no way have we been meddling or acting in an inappropriate fashion.

Mr. WAXMAN. I disagree with that. It seems to me what I have is a clear statement by the State Department that you are going to leverage, use pressure on EPA, and then you are going to even seek to negotiate what the proposals will be, and, in effect, box EPA into going along with those proposals. But at any rate, certainly you would want everybody to get the documents that you have and let us review them? Is there any reason why that shouldn't be made public?

Mr. WATSON. We have provided, I believe, every document requested by this committee to the committee. And we have undertaken an immediate and very rapid and urgent classification review of documents. And we have already managed to declassify a great number of them, which the committee has and are available to the public now, and we are continuing this process.

So we are proceeding very, very rapidly. In fact, we had a specific request from the committee as late as Monday, and you know we have—a rather complicated procedure for reviewing the classification of documents, its not done by myself, or somebody like that, and these people have been working frantically to try to produce as much declassified material as they can.

I think they have been very responsible. They will continue to do it. And we would be delighted to work with you in that regard.

Mr. WAXMAN. Well, we expect you to work with us and we expect these documents to be available. And I must say, since my time is up and I do have other questions, I will come back perhaps to some of these various issues later, but I can't read this in any other way, that State is trying to pressure EPA, and I think that is inappropriate. Thank you, Mr. Chairman.

Mr. DINGELL. The time of the gentleman has expired.

The Chair recognizes now the gentleman from Ohio, Mr. Brown.

Mr. BROWN. Thank you, Mr. Chairman.

Mr. Watson, according to the December 15, 1993 memorandum that we have spoken about from you to Under Secretary Spero, you refer to the December 14 meeting in Bo Cutter's office, and set forth the proposed message to the Venezuelans, which, among other things, said that the State Department "has weighed in heavily with EPA on behalf of the Venezuela."

That comment leaves me with the impression that the State Department in a sense was acting as an independent agent on behalf of the Venezuelans rather than helping to support the EPA.

In January, Mr. Watson, Venezuela escalated the matter by calling for GATT consultations; is that correct? In January?

Mr. WATSON. I believe it was in January when they requested the GATT consultations.

Mr. BROWN. Mr. Shapiro, then there is a State Department memorandum from "ARA," to Mr. Watson, indicates that with the GATT challenge over the horizon, "USTR is now as anxious as we are to resolve this issue and feels that the interagency approach will encourage EPA to make more rapid progress."

The memorandum goes on to say, "We recommended in our last memo that Ambassador Davidow meet with Energy Minister Parra to encourage the government of Venezuela to formally request bilateral non-GATT consultations with the EPA. This would serve the purpose of formally placing the ball in EPA's court."

Then went on to say that: Trade rep now wants to formalize PDVSA-EPA technical meetings by adding interagency participation. USTR, State, Energy and possibly Treasury and Venezuelan officials to comply with the formally requested GATT bilateral consultations. In effect, GATT consultations would be grafted onto the ongoing PDVSA-EPA meetings. This would have the advantages of preventing the EPA from going it alone without the involvement of the other interested agencies.

I'm still reading from the memorandum. "It also would create leverage on EPA to reach an equitable agreement."

Finally, "formal consultations would provide EPA an opportunity to explain any agreement in terms of U.S. treaty obligations."

I was surprised to see these comments about the USTR in light of some of Mr. Kantor's earlier comments. Why did the State Department and USTR believe it necessary to leverage the EPA to reach that agreement with the Venezuelans is that appropriate?

Mr. SHAPIRO. Mr. Brown, I haven't ever seen that document and, frankly, I am not sure that is an accurate characterization of our position. I mean, our position—USTR position is as stated, as I stated before, we had, starting in late 1992, a concern about the possible GATT issue that we communicated with EPA for them to think about in their process.

The preference of dealing with the Venezuelan question, of Venezuelan refiners, if PDVSA could be given a baseline that could be verified and basically could satisfy Clean Air Act requirements, was always from the standpoint of USTR preferable, but the caveat was that the Clean Air Act requirements had to be met. That was Ambassador Kantor's position in the December memo that went to him when he responded to us.

After December 15, we had a situation where EPA had determined that it was finalizing the rule, number one; and number two, continuing to discuss the Venezuelan issue with PDVSA to see if anything could be worked out that satisfied the Clean Air Act requirements. We certainly have hoped that a GATT challenge could at that point be avoided if the Clean Air Act requirements could be met.

But frankly—and I got a note from my people to note that we have been pursuing the GATT consultations and have frankly viewed that as a separate process from the technical consultations that were going on with EPA—obviously, there is some desire to be kept informed, but we have only been doing the GATT consultations to the best—you know, to the best of my knowledge.

Mr. BROWN. You—at the beginning said you don't think it is a proper characterization of USTR by State. Have you ever disputed that with State?

Mr. SHAPIRO. I didn't know about that characterization.

Mr. BROWN. Mr. Watson, is it a fair characterization?

Mr. Shapiro, it is a proper characterization?

Mr. WATSON. I would certainly accept Mr. Shapiro's characterization of the USTR position. What I believe you are referring to are internal memoranda between me and some of my staff which didn't go—and an additional one from me to Joan Spero that went no further than that, and were not manifested in any way, and were impressions that people have of the situation at a given time. And if those are not accurate, I would be the first to drop them immediately.

In terms of your first point, though, when you referred to a memorandum of December 15, I also would like to ask you to take a look at one of, I think it is December 21, that has been released in full, which is a description from me to Joan Spero.

It was an update on Venezuela and the reformulated gasoline issue in which it also indicates quite clearly how closely we are working with EPA and how I was using and talking with Venezuela—the issues—guidance provided precisely by EPA officials and others. So there wasn't anything sort of untoward going on here at all. It was perfectly well coordinated.

And when I made those first calls to the Venezuelans on the evening of the 15th after being informed by EPA that I could do so, it was on the basis of instructions worked out by the inter-agency group in the NEC meeting, and certainly totally in accordance with what EPA wanted me to do. So I just wanted to clarify that for the record. Because I think the December 21 memo which records what actually did happen is perhaps more accurate than what I had said earlier that I would propose to do following what the December 14 meeting.

Mr. BROWN. Your characterization of USTR's position, which Mr. Shapiro certainly disputes, fine, I accept that.

If your characterization was that as we just outlined, did that affect the EPA's activities in—a misreading of USTR's position?

Mr. WATSON. I don't think so, but I would have to ask EPA, sir. I don't think so, because I don't think any of this—what we are talking about here went anywhere outside the State Department. These are impressions of people in the State Department, descriptive of a situation. They weren't in position to be manifested by anybody to anybody else, and that's why nobody at this table besides myself has ever seen these papers.

Mr. BROWN. Let me shift gears for a moment to—

Mr. WAXMAN. Would the gentleman yield, just before you abandon that?

Mr. BROWN. Certainly.

Mr. WAXMAN. I have to dispute that. You may not think it is untoward, but I certainly think it is untoward for our Ambassador to meet with the Energy Minister from another country to encourage that other country to formally request bilateral non-GATT consultations with EPA. This would serve the purpose of formally plac-

ing the ball in EPA's court. That strikes me as telling a foreign government to come in and press us to change our laws.

Mr. WATSON. No, sir.

Mr. WAXMAN. I don't see that as the role of either the Trade Representative or the State Department.

Mr. WATSON. No, sir, the important thing was to get the Venezuelans rather than pursuing an alternative course of going off and going to the GATT, of immediately taking up the offer which EPA was making on the night of the 15th and 16th, to continue discussions with the Venezuelans. That was the point of that, was to get the Venezuelans engaged with EPA immediately and not go off on some other tangent because they misinterpreted the situation.

Mr. WAXMAN. Place the ball in EPA's court, sounds like a different connotation to me.

Mr. WATSON. That's the way you want it when you are going to hit the ball and EPA wanted to proceed—

Mr. WAXMAN. But you are helping the other guys deliver the serve.

Mr. WATSON. No, we are telling them to get the ball into the court where it can be hit by the EPA.

Mr. WAXMAN. Sounds to me like a sticky wicket.

Mr. BROWN. Ms. Nichols, an EPA document said Venezuela gasoline would, "have as much as 13.9 percent greater NO_x emission than U.S. average RFG."

My State, Ohio, and many other States, potentially will lose in highway money, billions of dollars. Ohio potentially could lose hundreds of millions of dollars because of NO_x requirements. Yet, Venezuelan oil may be allowed with this NO_x increase—and back in the Administrator Browner, in a March 30 letter to Governor Voinovich in Ohio, indicated that she would soon be issuing conditional waivers on the NO_x for those areas that have not violated ozone quality standards in the past 3 years. Eight Ohio regions could qualify for those waivers.

When can we reasonably expect, now that 3 months have gone by, those waivers to be issued from EPA so that Ohio and other States can proceed?

Ms. NICHOLS. I believe that these requests are being worked on currently in our North Carolina office, to verify data that has been submitted about the status of modeling in those areas. I can't give you a precise date, but I believe that based on that letter, both the State and the Department of Transportation are quite confident that there won't be any impediment to States moving forward with their transportation plans.

Mr. BROWN. Mr. Chairman, one more last question. How do you reconcile that we do this for Venezuela and we don't do this for Ohio, or we do this for Venezuela air quality and—for our air quality for Venezuelan oil, but we don't do this in the Midwest, which have these NO_x issues, or much of the rest of the country?

Ms. NICHOLS. Well, Mr. Brown we are dealing with a rule here that is applicable across the United States. The reformulated gasoline will be sold in, roughly, 30 percent of the country, 30 percent of the gasoline will be reformulated gasoline all through New England, some in the Midwest, and some elsewhere.

Clearly, we have got a huge market for gasoline here and we have a very important set of emissions reductions to be achieved. Overall, as a result of this rule, gasoline that is reformulated will be 5 to 7 percent lower in NO_x as an average, as a pool of gasoline, as a result of our reformulated gasoline rule. And I am very proud of the NO_x reductions that are going to be achieved as a result of the rule. And it is because of the credit from that rule, in part, that we are able to look at the NO_x situation in different areas overall, from the point of view of what else is going to be needed for attainment, and the fact that there will be NO_x reductions coming from this rule as well as other automotive rules that EPA has promulgated that allows States to move forward with some of their transportation construction plans.

The issue of a potential foreign refiner baseline under this rule is a question in my mind of whether a foreign refiner will be allowed to be treated in the same way as a domestic refiner. The fundamental underlying question which unfortunately for me at least, was dealt with in the "Reg Neg" which was long before my time at EPA, but which was agreed to by everybody, was the concept of establishing separate baselines in the first place.

If there is a separate baseline allowable to a refiner, and it is only allowable to one who is based in the United States, the question is, what is the environmental basis for a blanket discrimination against a foreign refiner? That was the question that I was forced to address.

My preference, as I suppose you could say as an American, as a Democrat, or whatever, would be to favor American companies wherever it is legitimate to do so. But as a Federal official implementing a rule here, I have to ask myself a number of questions, and one of them is how do we get the maximum environmental benefits out of this rule in a way which is also fair and assures an adequate supply of the product?

Those are the questions we have asked for comment on in this rulemaking. And those are the considerations that will go into making a decision.

Mr. BROWN. Thank you, Mr. Chairman.

Mr. DINGELL. The time of the gentleman has expired.

The Chair recognizes now the gentleman from Texas, Mr. Barton.

Mr. BARTON. Thank you, Mr. Chairman. I don't know about the rest of the panel, but I have heard about all I want to hear about Venezuela for a while. I want to switch to something a little bit closer to home.

Ms. Nichols, in your written testimony, on page 20, we are talking about this 30 percent requirement for ethanol, and you say: In December 1993, the Agency proposed a different strategy for help assure a role for renewable oxygenates such as ethanol, and in an environmentally friendly way. Then you go down to the bottom of the page, it says: The intent of the current renewable oxygenate proposal would be to assure that oxygenates such as ethanol and potentially MTBE or ETBE produced from renewable resources have a substantial share of the reformulated gasoline oxygenate market.

Now, where in law in the Clean Air Act and Energy Policy Act, or any other act, is there a requirement that EPA promulgate proposals that guarantee a substantial share of any market?

Ms. NICHOLS. Mr. Barton, there is no requirement that we do so—

Mr. BARTON. So there is no requirement.

Ms. NICHOLS. It is not—

Mr. BARTON. Thank you. I am not going to listen to 5-minute answers, because I have only got minutes. OK.

Now, this hearing has been going on for about 3 hours, and I have had adequate time for once really to review all the documentation that has been provided, and the staff has done an excellent job of that.

We have over 50 Senators that have sent either a collective letter or individual letters to EPA objecting to this 30 percent requirement for ethanol. We have 115 House Members who have sent either group letters or individual letters.

Now, I have another document here that was prepared to brief the Administrator of the EPA on July 9, 1993, it said ethanol in reformulated gasoline—now the staff has given it to each of us.

Do you have that document.

Ms. NICHOLS. I do.

Mr. BARTON. OK. I would like if it is possible, Mr. Chairman, to put it into the record, if it is not already in the record.

Mr. DINGELL. Without objection, we will insert that in the record at the appropriate time.

Mr. BARTON. All right.

A lot of this goes to the proposed Bush administration proposal that would have given a waiver on the read vapor pressure for ethanol. And some of the—some of it, I am going to read into the record is directly at that and I will stipulate that on the record. But the concerns are the same on page 16 of this document, this briefing to the EPA Administrator, it says: Concerns with the ethanol proposal.

Now, this is specifically on the Bush administration proposal that would have given a—would have given a waiver on the read vapor pressure, but it says: "It violates the spirit of the "Reg Neg" and may jeopardize future "Reg Neg." Substantial legal problems to justify legally need to show that ethanol energy and other benefits are substantial enough to override environmental impact.

"Can't do. No significant energy business. Not more cost-effective. Even if ethanol had clear cost and energy benefits, it would be a clear legal stretch to turn an environmental regulation into an economic subsidy slash energy regulation versus tax credits, energy requirements, et cetera.

"Justification proposal almost nonexistent. Providing justification now without reproposing violates notice and comment requirements, significantly increasing the risk of litigation on not only this but many other elements of the RFG program."

Now, again, I want to stipulate that that was specifically to the Bush administration proposal to allow the waiver to the vapor pressure, but the same arguments could be used for this. This is no substantive difference, there is no by proxy scientific validation.

In fact, later on in this briefing, it says simply we need to do something to help the farm lobby.

Now, as the senior EPA official here today, do you—are you prepared to stipulate on the record that there is any other justification for this 30 percent set-aside other than a pure political consideration to help the farm lobby?

Ms. NICHOLS. I will not so stipulate.

Mr. BARTON. Well, an honest answer.

Mr. Chairman, I am going to yield back the balance of my time because I would like to submit a number of questions for the record. But I will say that I want to commend the lady for answering honestly.

Ms. NICHOLS. I think you may have misinterpreted my answer. I won't stipulate that there is, that the only basis is a political one.

If I have misinterpreted a double negative, then I am going to have to withdraw, especially since I am under oath.

I interpreted your question here as: Would I stipulate that was the only basis for such a proposal? And I would not.

I think from your enthusiastic reply to my answer, you interpreted it at the opposite way from what I intended.

Mr. BARTON. Well, I interpreted it that you admitted that it was simply for political considerations that has been submitted.

Ms. NICHOLS. No, I did not, sorry.

Mr. BARTON. Then I'm going to ask a few more questions.

You see, I thought that was too—

Ms. NICHOLS. It was too easy.

Mr. BARTON [continuing]. frank of an exchange there, to be honest. OK. You kind of discombobulated me there a little bit.

Let me ask this final question on the statutory authority.

On December 21, 1993, the final regulatory impact analysis for reformulated gasoline, which is an EPA document, it says that: EPA does not believe that it has the authority under either Section 211(C) or 211(K), to impose the—suggest the provisions. So again I am taking that to admit that in your first answer that there is no statutory authority to do what has been done?

Ms. NICHOLS. May I respond?

Mr. BARTON. Gentlemen.

Ms. NICHOLS. I do not believe that is the correct interpretation. As you correctly cited the initial—the briefing paper, EPA did not believe that it had the legal authority to promulgate the Bush proposal because of the environmental problems. It also believed that it would create, if it were mingled with the regular rule, a risk to the overall rule.

As I indicated before, our number one objective—get the reformulated gasoline program promulgated.

We did that on December 15, with no mention of the subject of ethanol or renewable oxygenates, for a reason. It was to insulate that program and get it moving forward.

However, because there were still concerns and interests within EPA and elsewhere about this issue of what the role of renewables was going to be under the program, we undertook a separate notice and proposal in order to solicit the broadest possible comment, not only on the technical issues of the environmental and energy benefits or problems with such a proposal, but also the legal issues. And

we have received voluminous comment on those issues, which we are still addressing.

Mr. BARTON. I am told there were over 12,000 comments that have been received. I am also told that the vast majority of those comments are very negative on the proposal, with the exception of some that are directly engaged in the ethanol industry.

Ms. NICHOLS. I think you quoted letters from Members of Congress. I believe we have heard from every single Member of the United States Senate on one side or another of this proposal.

Mr. BARTON. The Chairman has been kind to let me go on beyond the 5 minutes.

I sense no scientific justification using the EPA's own review materials. There are no environmental benefits to this. It really appears to me that someone somewhere has made a political decision to simply set aside a certain percent of the reformulated gasoline market or the alternative fuel market for a very specific industry segment, which was not the intent of the Clean Air Act.

In fact, we went to great lengths to try to level the playing field. And I would hope that this committee would take whatever appropriate steps necessary to maintain the spirit of the act as passed in 1990.

I would yield back to the Chairman.

Mr. DINGELL. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Colorado, Mr. Schaefer.

Mr. SCHAEFER. Thank you, Mr. Chairman.

Ms. Nichols, as you know, the domestic oil industry has been required over of the past years to put enormous amounts of money into upgrading their facilities, some \$37 billion, I have been told, and a large part of that is due to our passage of the Clean Air Act. If we look at what our U.S. companies are doing, and we are telling our foreign sources to do the same thing, are we not treating one different than the other?

Ms. NICHOLS. Mr. Schaefer, I think the question—the way I would formulate the question—what is the role of EPA in terms of trying to protect the environment of our citizens here in the United States? It isn't my jurisdiction to protect the environment in other countries, although we do undertake some measures to promote U.S. environmental policies and U.S. environmental protection abroad under various types of aid and educational programs.

But with respect to the reformulated gasoline program, our jurisdiction is over the product that is sold in the United States. We need to make sure that that product also meets the strictest possible environmental standards.

Mr. SCHAEFER. If we have jurisdiction, we also have the jurisdiction to tell that foreign producer that it has to meet those same regulations.

Ms. NICHOLS. Yes, we do.

Mr. SCHAEFER. So, therefore, at this point in time, would you say that they are not playing under the same rules?

Ms. NICHOLS. I believe that under the December reformulated gasoline final rulemaking, we did discriminate between domestic and foreign refiners. We did it for what we believed was a purpose, which was to assure that we had adequate control over the gasoline

supply and that we were getting the benefits of the program. And that is why we allowed domestic refiners to establish their own baseline for the 3-year, phase 1 of this program, but did not allow that same privilege to the domestic refiners.

However, serious issues were raised to the EPA by at least one foreign company that indicated that they were at least as capable of meeting every single test that was being applied to the domestic refiners and therefore that we were simply being discriminated against on the basis of being foreign.

If that is the case, that would be a serious difficulty, in my estimation, because it would imply that we were cutting off the market for an environmentally beneficial product simply on the basis of country of origin, which I don't believe would be something that would be appropriate for us to do.

Mr. SCHAEFER. Does anybody else want to comment on this at all? All right.

It just seems to me we are under different rules. And I find that very distasteful.

I want to focus for a moment on the renewable oxygenate requirement my friend from Texas brought up.

Now, I have been a strong supporter of alternative fuels for a long period of time. During the consideration of the Clean Air Act—most of the members of this committee remember the bruises and bumps many of us took on this issue—but we worked hard to put incentives in to ensure renewable fuel development; as a matter of fact, the National Renewable Energy Laboratory, which is in my district, is doing a lot of research in this area, and I am really supportive of these efforts. However, it doesn't mean that I support the EPA's attempts to mandate a renewable oxygenate requirement for RFG when we in Congress, during the time of the Clean Air Act, worked very diligently to have an even playing field out there.

So in the lead-up to that, may I ask Ms. Nichols, what effect would the ethanol ETBE mandate have on the oxygenated fuel programs from the CO nonattainment areas?

Ms. NICHOLS. Mr. Schaefer, the proposal, and I would emphasize once again that it is still a proposal for a renewable content mandate within the reformulated program applicable on a year-round basis. It would be—it would, we suspect—as implemented by the oil companies, would probably result in more ethanol being used in the winter months rather than in the summer months, when that is easier to do, although it is somewhat unpredictable how this would work out over the long term.

But the requirements for reformulated gasoline in the areas that have CO problems in the winter would stay the same in terms of the performance standards, so there would be no diminution in the CO benefits from the reformulated gasoline proposal whatsoever. There would be no change.

Mr. SCHAEFER. Well, what has been used out there for oxygenates is MTBE, up to this point in time. We pushed really hard to make sure that this was allowable under the Clean Air Act.

Ms. NICHOLS. Yes.

Mr. SCHAEFER. Now if we get to the point we are talking 30 percent, we are basically disregarding MTBE. Since it doesn't meet those requirements; am I not correct?

Ms. NICHOLS. Mr. Schaefer, I just wanted to remind you that the proposal only deals with a fraction of the oxygenate. Seventy percent of the oxygenates that are used on a year-round basis would still be from nonrenewable sources or could be from nonrenewable sources, so there is no reason why MTBE would not continue to be used in the places where it is currently being used for meeting the CO standard.

It is possible that at some point in the future MTBE will be made from renewable sources, and this would be a good thing I believe, and I think you would share that belief from an overall U.S. energy policy point of view.

Mr. SCHAEFER. Well, we are betting on the farm here. We don't know what is possibly going to be out there. And my real concern is that are we going to have enough ethanol available? In Colorado, particularly in our winter months, we've gone a long way toward eliminating non-attainment days. As a matter of fact, it was only 1 day last year.

Ms. NICHOLS. Excuse me. My staff has just handed me a note that indicates that 30 percent of the winter program in Colorado was, in fact, met with ethanol, 30 percent—

Mr. SCHAEFER. Yes, I know, and this is a problem that I am concerned with, to start shipping all of this to Mr. Moorhead in California, what is it going to do to our prices out there. And how much corn are we going to be able to grow in order to produce this? We are going to have a lot of skinny hogs around.

Ms. NICHOLS. Well, the Department of Agriculture seems to feel confident that they can meet the demand.

Mr. UPTON. I just might add I have one county in my district that has more hogs than people, but we have a lot of corn to take care of them.

Mr. SCHAEFER. Right. I was going to ask you. You say, who, the Department of Agriculture has done this study? Has DOE done a study on this and are they reasonably confident that we have enough of this product to supply everything that we need in renewable resources in this country?

Ms. TIERNEY. We are confident that there will be sufficient amounts of ethanol. Taking a look at the United States as a whole, we think that there are uncertainties about the movement of the ethanol. We think that it may shift ethanol from its current use in the conventional gasoline market, not the oxygenated gasoline market. And so we think that there will be changes after this proposal is in place, should it be adopted, but we think overall there is enough ethanol.

Mr. SCHAEFER. I know my time has expired here, Mr. Chairman, and I do have a few other questions that I would like to submit in writing if it would be satisfactory.

Again, I am very concerned. You have indicated that on July 1 we are going to have most of these problems cleared up as far as our refiners go. I would really seriously hope that you hold to that deadline, because it is almost too late by that particular time.

I thank the Chair.

[The information follows:]

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Congress of the United States
House of Representatives
Washington, D.C.

July 27, 1994

ENERGY AND COMMERCE
COMMITTEE

SUBCOMMITTEES
OVERSIGHT AND INVESTIGATIONS
RANKING REPUBLICAN
TELECOMMUNICATIONS AND FINANCE
TRANSPORTATION AND
HAZARDOUS MATERIALS

The Honorable Mary Nichols
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

Dear Ms. Nichols:

In connection with our June 22, 1994, hearing on the status of EPA's regulations regarding reformulated gasoline (RFG), I am writing with some additional questions.

I would appreciate your response to these questions within thirty days so that your responses can be included in the record of the hearing.

Thank you for your testimony before the Subcommittee last month and for your assistance with the attached questions.

Sincerely,

Dan Schaefer
Ranking Republican,
Subcommittee on Oversight and
Investigations

Attachments

cc: Honorable John D. Dingell
Chairman, Subcommittee on Oversight and Investigations

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U.S. HOUSE OF REPRESENTATIVES

Questions to the EPA

Questions About the Record

1. Section 307(d)(4)(B)(i) of the Clean Air Act provides the following:

All documents which become available after the proposed rule has been published and which the Administrator determines are of central relevance to the rulemaking shall be placed in the docket as soon as possible after their availability.

Please indicate whether the Administrator has determined that the following documents are of "central relevance" to the renewable oxygenate rule and placed them in the appropriate public docket, i.e., docket No. A-93-49:

- o "The Impact of a Proposed EPA Rule Mandating Renewable Oxygenates for Reformulated Gasoline: Questionable Energy Security, Environmental, and Economic Benefits?" by Vito Stagliano, Resources for the Future, February 1994.
- o "Evaluation of the EPA's Proposal for Renewable Oxygenates." by Dr. James Sweeney, May 1994.
- o The attached compendium of Congressional letters.

What other documents, records, correspondence or other information, if any, has the Administrator determined are of "central relevance" to the renewable oxygenate rulemaking? Have these documents been placed in docket No. A-93-49?

2. In its testimony before the Subcommittee on Oversight and Investigations on June 22, 1994, EPA stated that it would include into the official record the results of the Department of Energy's June 8, 1994, study of the renewable oxygenate rule entitled "Analysis Memorandum: Energy Requirements and CO₂ Equivalent Emissions." Please indicate whether this study has been included in the official docket of the renewable oxygenate rulemaking.
3. What is the relevant docket for EPA's renewable oxygenate rule under section 307(d) (2) of the Clean Air Act? How does the docket relate to public docket A-92-12 and other EPA dockets for fuel regulations? Please provide a copy of the statement in the Federal Register in which the public was directed to "the docket" relating to the EPA's renewable oxygenate rule.

4. Please identify the statement of basis and purpose for EPA's renewable oxygenate rule. Did the eight pages of the preamble to the renewable oxygenate proposal summarize all of the factual data on which the proposal was based, all of the methodologies used in obtaining the data and in analyzing the data, and all the major legal interpretations and policy considerations underlying the proposed rule?
5. By requesting comments in at least two dozen specific areas throughout the renewable oxygenate proposal, did EPA intend to support the proposal through factual data, methodologies, analyses, interpretations and policy considerations submitted by the public after EPA's proposal was published and before the end of the public comment period? Did EPA consider publishing an advance notice of the proposed rulemaking (ANPRM) instead of a proposed rulemaking regarding the renewable oxygenate proposal? If not, why not?
6. Has EPA included all of the interagency review documents (as described in section 307(d)(4)(B)(ii)) in docket No. A-93-49? Please provide copies of the docket showing that all such documents have been included.

Statutory Authority

1. In the December 21, 1993, draft Final Regulatory Analysis For Reformulated Gasoline, EPA, in discussing various options for encouraging ethanol use in RFG, rejected a mandate to "use ethanol as the oxygenate in certain fraction of the RFG the [refiners] produce". EPA said:

"EPA does not believe that it has the authority under either §211(c) or §211(k)(1) to impose the suggested provisions..."

Nevertheless, in the preamble of the renewable oxygenate proposal, EPA cites §211(k)(1) as authority for this proposal. Please explain this discrepancy and EPA's statutory authority for this mandate.

2. Congress carefully maintained a policy of fuel neutrality in both the Clean Air Act Amendments of 1990 (CAAA) and the Energy Policy Act. During the debate of the CAAA and the Energy Policy Act, the U.S. Congress considered and rejected several proposals that would have mandated increased use of ethanol. Please explain how the renewable oxygenate mandate is consistent with this policy of fuel neutrality.
3. EPA's renewable oxygenate rule would establish a standard that would require that renewable oxygenates be produced with a net 20% reduction in carbon dioxide emissions. What legal authority does EPA have to establish such a standard?

Use of Mandate

1. On page 18 of its testimony presented to the Oversight and Investigations Subcommittee on June 22, 1994, EPA acknowledged that Congressional initiatives have helped renewable fuels and oxygenates to grow into a significant industry. Notwithstanding other Congressional initiatives, Congress maintained fuel neutrality in the Clean Air Act Amendments. What specific information has EPA received to reach the conclusion that renewable oxygenates will not continue to make a significant contribution to gasoline markets, and thereby justify any specific requirement for their use at a prescribed percentage?
2. Why is it necessary to have a mandate for renewable oxygenates when the ethanol industry testified at the EPA hearing on January 14, 1994, that ethanol production capacity will double by 1996 without a mandate?
3. Some have said that, absent incentives and/or mandates, ethanol will not have a role in reformulated gasoline. However, in the RFG preamble, EPA stated:

EPA...does not agree that ethanol is excluded from the marketplace under the provisions of the April 16, 1992 proposal. In fact, as under the recently implemented wintertime oxygenated fuels program, ethanol is expected to significantly increase its market share under the reformulated gasoline program.

EPA makes substantially the same statement several additional times in its December 21, 1993, draft Final Regulatory Impact Analysis For Reformulated Gasoline. If these statements truly reflect EPA's thinking, why does EPA find it necessary to propose a mandate for the use of renewable oxygenates?

4. The preamble to EPA's renewable oxygenates proposal discusses a February 26, 1992, ethanol proposal made by EPA pursuant to former President Bush's announcement that he wanted ethanol to effectively compete in the RFG program. However, the preamble indicates that the EPA had a number of "concerns with respect to its legality, energy benefits, and environmental neutrality" and that since then the "concerns have been enhanced". The preamble then concludes:

While EPA maintains that the program would have provided an economic incentive for the use of renewable oxygenates in reformulated gasoline up to a 30% market share, EPA acknowledges that the proposal would have intruded into the efficient operation of the marketplace, impacting the cost of the reformulated gasoline program. As a result, after taking into account the cost, non-air quality and environmental

impacts, and energy impacts, EPA has found itself with no choice but to back away from the renewable oxygenate provisions of the February 26, 1993, proposal.

How does EPA's recently promulgated rule overcome these concerns?

Supply Distribution

1. In the preamble to its renewable oxygenate proposal, EPA cited the difficulties encountered during the introduction of low sulfur diesel fuel last October in deciding to require a one-month transition period for RFG in the distribution system. A very large part of the nation's production and sales of ethanol is concentrated in the Midwest, quite some distance from cities on the East and West coasts where renewable oxygenate will be required in RFG. One notable difference between the diesel situation last year and the upcoming introduction of RFG is that low sulfur diesel is manufactured and shipped through the same facilities as was diesel prior to the low sulfur regulation, yet problems in distribution still occurred.
 - a. Given that vast quantities of ethanol will have to be uprooted from traditional markets and transported to opposite ends of the country in a distribution system that has never been tested for this use, what assurances can EPA provide that the existing distribution system can accommodate this mandate? How will EPA assure motorists that supply problems will not accompany the introduction of RFG?
 - b. What plans and/or actions has EPA taken, especially given the significant delays in promulgating a regulation for RFG, to assure timely compliance with the revised regulations and to ensure that there will be no supply, distribution or price disruptions of any kind on January 1, 1995?
 - c. Isn't it true that the ethanol mandate will interfere with the way gasoline is transported today, i.e., primarily through fungible pipelines?
 - d. Won't the mandate require segregated shipments of RBOB (reformulated blendstock for oxygenate blending)? If segregated shipments are indeed necessary, won't that result in reduced overall pipeline shipping capacity? If the overall shipping capacity is reduced, won't this result in shortages of conventional gasoline in some areas?
2. Substantial amounts of ethanol are used to achieve reductions in carbon monoxide non-attainment areas.

- a. What effect will the ethanol/ETBE mandate have on the oxygenated fuel programs for carbon monoxide nonattainment areas?
 - b. Isn't the renewable oxygenate mandate likely to shift ethanol supplies away from the oxygenated fuel market and into the RFG market? Isn't this likely to increase costs to consumers in carbon monoxide nonattainment areas?
 - c. Couldn't such a shift cause shortages for the oxygenated fuels program and potentially increase consumers' costs?
3. What is the likely competitive effect of providing a guaranteed ethanol market where a single company dominates the ethanol market?
 4. In promulgating the RFG rule, EPA has imposed new requirements for additional reporting, recordkeeping, and quality assurance. The renewable oxygenate mandate will add significantly to this burden. Both of these rules will add new requirements. Has EPA examined the impact (including market dislocations and possible closures) of the renewable oxygenate mandate on the refining industry or the consumer? If not, please describe EPA's rationale for failing to conduct such an analysis.

RFG Implementation Issues

According to the petroleum industry, EPA's failure to issue a direct final rule has denied the industry crucial guidance they needed on a timely basis. For example, 1990 gasoline baseline with full documentation had to be submitted by June 1, 1994, but EPA has failed to respond to industry's request for written clarification of the requirements. Given the tardiness of this clarification, some refiners may not be able to or may choose not to revise their baseline in time to meet production requirements in September for some areas.

- a. Wouldn't you agree that this baseline should be optional rather than a requirement if a refiner has already submitted a baseline in accord with his best interpretation of the final rule.
- b. How will EPA respond to the large volume of baseline submissions? What resources does EPA have to review these baseline submissions?
- c. Can EPA commit to approving these submissions by September?

Permitting for RFG Facilities

When this Subcommittee held its hearing on aspects of the Clean Air Act Amendments of 1990 last October, there were questions concerning actions that EPA had taken to challenge activities by some refiners to convert refineries to make reformulated gasoline. In short, EPA was challenging whether refiners had the necessary permits to proceed with construction of reformulated gas facilities.

- a. Given the obvious concerns of the Subcommittee that refiners and marketers may not have adequate time to comply with the reformulated gas rule, can you assure the Subcommittee that EPA is doing everything possible to expedite, rather than hinder, the issuance of permits necessary for refiners to make reformulated gasoline?
- b. Please provide the Subcommittee with a State-by-State (or region-by-region) breakdown of the status of Federal, State or local permits required by the reformulated gasoline program, and a list of the reasons why refiners may not have yet received the necessary permits.

Compendium
CONGRESSIONAL LETTERS
IN OPPOSITION TO
EPA's Ethanol Rule

- Letter to Administrator Browner from Chairman Johnston and myself, cosigned by 46 Senators, dated March 2, 1994.
- Letter to Administrator Browner from Congressmen Fields and Brown, co-signed by 116 House Members, dated March 25, 1994.
- Letter to Administrator Browner from Senator Thurmond, dated March 1, 1994.
- Letter to Administrator Browner from Senator Cochran, dated February 17, 1994.
- Letter to Administrator Browner from Senator Gramm, dated February 15, 1994.
- Letter to Secretary O'Leary and Administrator Browner from Chairman Dingell, dated April 21, 1994.
- Letter to Administrator Browner from Congressman Brooks, dated March 11, 1994.
- Letter to President Clinton from Chairman Mineta, dated March 10, 1994.
- Letter to Administrator Browner from Congressman Wyden, dated March 21, 1994.
- Letter to Administrator Browner from Congressman Dickey, dated March 10, 1994.
- Letter to Administrator Browner from Congressman Hoyer, dated March 28, 1994

United States Senate

WASHINGTON, DC 20510

March 2, 1994

Honorable Carol M. Browner
Administrator
Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Ms. Browner:

We are writing to make clear our opposition to the Environmental Protection Agency's proposed rule to mandate the use of ethanol and ETBE in reformulated gasoline (RFG). This rule was proposed as an adjunct to the RFG rule which was finalized in December 1993.

We strongly urge you to withdraw this proposal. EPA's attempt to choose the RFG oxygenate "winner" is troubling and inappropriate. This rule will create chaos in the marketplace, cause serious RFG deliverability problems, and unnecessarily increase the cost of RFG to consumers. Lastly, and most importantly, the rule will result in no clear environmental benefits. In fact, according to testimony by state air pollution control regulators, the fuel mandate could adversely affect air quality, with increases in volatile organic, carbon monoxide and greenhouse gas emissions.

During deliberation over the 1990 Clean Air Act Amendments, the 1992 Energy Policy Act, and during the regulatory negotiations, policies that would have mandated a market share for particular fuels were considered and rejected. For many years, Congress has consistently moved towards improving markets and efficiency and away from costly intervention. The proposed ethanol mandate clearly violates the reg-neg agreement and is counter to much of what Congress has done in the last twenty years.

The ethanol industry is already one of the most subsidized industries in the world. Without accounting for the vast quantities of nonrenewable fossil fuels used in production, the industry provides only enough fuel to displace a little more than one day's worth of oil. In exchange, the ethanol manufacturers receive a \$550 million check from the taxpayer. Under the EPA mandate, this industry will drain the U.S. Treasury and Highway Trust Fund of an additional \$340 million annually. Given the need to reduce the federal deficit, a decision to increase the subsidy is simply inexplicable.

We are extremely concerned that, if adopted, this rule would create serious disruptions in the supply, distribution and marketing system for RFG in the United States. The refining

Environmental Protection Agency

Page 2

industry must meet a January 1, 1995, deadline to supply RFG. Significant plans and investments have been made in reliance on a fuel neutral RFG rule. This last minute attempt to promote a particular additive will wreak havoc on preparation for the orderly introduction of RFG into the marketplace and increase the cost to consumers.

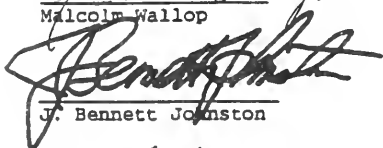
Finally, EPA's claim that the environment will benefit is at best debatable. In fact, air quality may get worse as a result. We urge you to consider carefully the comments provided at the EPA hearing by the state air quality administrators (STAPPA/ALAPCO). Increased ethanol use could, for example, increase ozone in the periods before and after the summer high ozone season. In addition, several reports, including studies by the Office of Technology Assessment, the General Accounting Office and the Environmental Defense Fund, raise serious questions about the claim that ethanol will reduce greenhouse gas emissions. Absent clear evidence that increased ethanol use will benefit the environment, EPA's proposal should not even be considered.

We urge you to reject this market mandate and withdraw this proposal.

Sincerely,



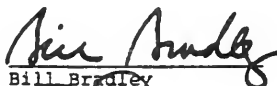
Malcolm Wallop



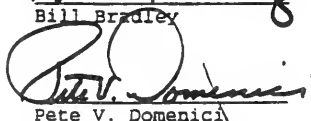
J. Bennett Johnston



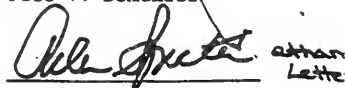
Joseph I. Lieberman

Bill Bradley



Pete V. Domenici


Alan Spitzer
Letter


Environmental Protection Agency
 Page 3
 Honorable Carol M. Browner
 March 2, 1994

Bob C. Taylor

Frank R. Lautenberg

Joe C. ...

Barbara A. Mikulski

Richard Shelby

Buc Rife

Walter ...

...

Bob Smith

Jay Rabyelle

John Breaux

Ray ...

Connie Mack

Paul Sarbanes

Dennis DeConcini

Robert F. Bennett

Phil Kennedy

Environmental Protection Agency
Page 4

Christopher J. DeM

Joe Baker

W. Magnier

John F. Kelly

Chuck Rode

Frank W. Trumble

Barbara Doy

James C. ...

Sam ...

Gil D. ...

Al ...

Rowell ...

Robert C. ...

John ...

Sub ...

Quinn ...

Al ...

John ...

Environmental Protection Agency
Page 5

Mark T. ...

Chai ...

Richard ...

...

Patty ...

March 2, 1994 Letter to Carol Browner

Page 1

Malcolm Wallop
J. Bennett Johnston
Joseph I. Lieberman
Don Nickles

Bill Bradley
Pete V. Domenici
Arlen Specter
Trent Lott

Page 2

Bob Graham
Frank R. Lautenberg
William S. Cohen
Barbara A. Mikulski
Connie Mack
Paul S. Sarbanes
Dennis DeConcini
Robert F. Bennett
Edward M. Kennedy

Bob Smith
John D. Rockefeller, IV
John B. Breaux
Kay Bailey Hutchison
Richard C. Shelby
William V. Roth, Jr.
Harris Wofford
Alan K. Simpson

Page 3

Christopher J. Dodd
Joseph R. Biden, Jr.
Daniel Patrick Moynihan
John F. Kerry
Charles S. Robb
Frank H. Murkowski
Barbara Boxer
Dianne Feinstein
Sam Nunn

David L. Boren
Alfonse M. D'Amato
Howell Heflin
Robert C. Byrd
Judd Gregg
Ted Stevens
Orrin Hatch
Jeff Bingaman
John Warner

Page 4

Slade Gorton
Claiborne Pell
Richard Bryan

Mark O. Hatfield
Patty Murray

Congress of the United States
House of Representatives
Washington, DC 20515

March 25, 1994

The Honorable Carol Browner
Administrator
U.S. E.P.A.
401 M Street, S.W.
Washington, D.C. 20460

Dear Administrator Browner:

We are writing to comment on the E.P.A.'s proposed rule to mandate the use of ethanol and ETBE in reformulated gasoline (RFG). This rule was proposed as an adjunct to the RFG rule which was finalized in December, 1993.

We urge the E.P.A. to withdraw this proposal which mandates the use of specific additives in RFG. This proposal runs counter to Congressional intent to maintain fuel neutrality in the RFG program. Furthermore, we are extremely concerned that E.P.A.'s attempt to select the RFG oxygenate "winner" creates chaos in the marketplace, may cause serious RFG deliverability problems leading to shortages of supply, which may, therefore, increase the cost of RFG to consumers, and has questionable environmental results as a nation-wide program.

As stated above, we believe that this rule runs counter to statutory direction. The E.P.A., itself, is on record as saying it is without legal authority to issue an ethanol mandate. In one of the Agency's own documents, its Final Regulatory Impact Analysis for Reformulated Gasoline, we read, "E.P.A. has no legal authority under the Clean Air Act to provide such a mandate for the use of ethanol." Obviously, there is a clear conflict of legal interpretation of the Act.

Additionally, in an earlier letter from 71 Representatives and 28 Senators to the President last fall the authors said, "The Act is entirely fuel neutral and only requires achievement of the specified emission reductions." The point can be no more clear.

Furthermore, we are concerned by the fact that this mandate will drain the U.S. Treasury and Highway Trust Fund of an (E.P.A.) estimated \$340 million per year. All the while, the Federal government will continue to provide subsidies to the ethanol industry amounting to \$550 million per year. As members who are interested in repairing our decaying infrastructure and who seek a balanced budget such a decision to favor a specific industry at such a cost is simply not reasonable.

We are also concerned that, if adopted, this rule would create serious disruptions in the supply, distribution, and marketing system for RFG. The refining industry must meet a January 1, 1995, statutory deadline to supply RFG. Significant plans and investments have been made in reliance upon a fuel neutral RFG rule. The fact that the rule governing the composition of that product may change and is still months from being finalized may mean that this nation may face unavoidable and major shortages of supply, accompanied by rising prices. We believe that a more orderly transition or introduction of RFG into the marketplace must take into account the need to provide sufficient supplies and a recognition of the manufacturing process behind that effort. We do not want to foster an economic crisis.

Finally, of considerable concern to us is the merit of the claim that the environment will benefit by adopting this rule. In fact, air quality may get worse as a direct result of this rule. Increased ethanol use could increase ozone in the periods before and after the summer high ozone season.

In addition, several reports, including studies by the Office of Technology Assessment, the General Accounting Office, and the Environmental Defense Fund raise serious questions about the claim that ethanol will reduce greenhouse gas emissions. In fact, these studies indicate that an increase in ethanol consumption may increase these emissions. Absent clear evidence that ethanol will benefit the environment, we feel the proposal lacks compelling scientific justification for its adoption.

We, therefore, respectfully urge that this rule be withdrawn. Thank you for your time and consideration of our concerns.

Sincerely,



Sherrod Brown



Jack Fields

Pete G. Torkillan

Jim Rlood

Bubba B Kennelly

Michael A. Andrews

St. St. St.

St. St. St.

Christopher Sims

Maty Meech

Mike Smith

Tom Andrews

Pat Sen

W. K. Fawcett

Ben Cardin

Pat Mearns

Richard Sko

Jim Moran

Frank Tejeda

Frank Pallone, Sr

Don Ruben

Charlie Stedman

Rick Santorum

John W. Olver

Luella Lee Lopez

Al Smith

John DeMink

Ray Johnson

Tom J. Jefferson

Bill Thomas

Billy Jones	Walter McCurdy
Phil Kichane	Clive Smith
Lamar Smith	Alan Gills
Kary L. Ceterman	Ed Gally
Carl Hatto	Jimmy Hays
James H. Biking	Laurie M. Slavy
Jim Chy	Tommy Lalleher
Tom Geph	Barnesbank
Fred Boehlen	Bob Alva
Ralph M. Hall	Ruf Boucher
Jerry Lewis	Ray Jay
Don Saup	Phil Phil
Nike Syran	RD 5
Lyan Schul	George E. Broad

Joe Baxter

John T. Dolise

No Ball

Helen Wilcox Bentley

Sammy Mudgett

Sam Siff

Ken Caldwell

Mike Belluelli

Alan McKeown

E. Clay Shaw, Jr.

Robert & Theresa

Cocky McLean

Ernest Latyck

Gene Swan

Bill Baker

Bill K. Brewster

Jim Wicker

Michael N. Luth

Cate Blute

Helen W. Carter

Ken Backlund

Bob & Shakti

Dyming Aron

John

Blair Livingston

Edo Carr

Tom Lewis

Bob Doman

Paul J. DeLungian

Pete J. King

J. McCune

Walter H. Zwick

H. Johnston

Bigg Hughes

Howard "Bud" H. H.

Nancy L. Carasco

David Dreier

Ji. Sexton

Jim LaRosa

Bob F. Lee

Susan Miller

Kill Sarpai

Merge Hochbacker

Olivia Cox

Thomas J. Mantor

Greg Laughlin

Dick Zimm

Dick Army

Ann M. M.

Tom DeHay

[Signature]

[Signature]

Jay Kim

Steve K.

**U.S. Representatives signing letter
to U.S. Environmental Protection Agency
Administrator Carol Browner**

Ackerman (NY)	Johnson (GA)	Stenholm (TX)
Archer (TX)	Johnston (FL)	Studds (MA)
Army (TX)	Kennelly (CT)	Stump (AZ)
Andrews (ME)	Kim (CA)	Swift (WA)
Andrews (TX)	King (NY)	Synar (OK)
Baker (CA)	Kolbe (AZ)	Tauzin (LA)
Barton (TX)	Laughlin (TX)	Tejada (TX)
Bentley (MD)	Lewis (CA)	Thomas (CA)
Bilbray (NV)	Lewis (FL)	Torkildsen (MA)
Bilirakis (FL)	Linder (GA)	Vucanovich (NV)
Blute (MA)	Livingston (LA)	Wise (WV)
Boehlert (NY)	Lowey (NY)	Wolf (VA)
Bonilla (TX)	McCrery (LA)	Young (AK)
Brewster (OK)	McCurdy (OK)	Zeliff (NH)
Brown (OH)	McInnis (CO)	Zimmer (NJ)
Brown (CA)	McKeon (CA)	
Borski (PA)	McMillan (NC)	
Boucher (VA)	Machtley (RI)	
Callahan (AL)	Manton (NY)	
Calvert (CA)	Meehan (MA)	
Carr (MI)	Mica (FL)	
Cardin (MD)	Moakley (MA)	
Castle (DE)	Molinari (NY)	
Chapman (TX)	Mollohan (WV)	
Coleman (TX)	Montgomery (MS)	
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Cunningham (CA)	Neal (MA)	
DeLay (TX)	Olver (MA)	
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Dornan (CA)	Pallone (NJ)	
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Fields (TX)	Parker (MS)	
Filner (CA)	Payne (VA)	
Fowler (FL)	Richardson (NM)	
Frank (MA)	Rohrabacher (CA)	
Gallegly (CA)	Santorum (PA)	
Gallo (NJ)	Sarpalius (TX)	
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Geren (TX)	Schaefer (CO)	
Green (TX)	Schiff (NM)	
Hayes (LA)	Schenk (CA)	
Hall (TX)	Shays (CT)	
Hochbrueckner (NY)	Shaw (FL)	
Hughes (NJ)	Shuster (PA)	
Hutto (FL)	Skeen (NM)	
Inhofe (OK)	Slaughter (NY)	
Istook (OK)	Smith (NJ)	
Jefferson (LA)	Smith (TX)	
Johnson (CT)	Snowe (ME)	

SHERROD BROWN
13th DISTRICT OHIO

Congress of the United States
House of Representatives
Washington, DC 20515-3513

FROM THE OFFICE OF:
CONGRESSMAN SHERROD BROWN
1407 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, D.C. 20515
(202) 225-3401

.....
FACSIMILE TRANSMITTAL COVER SHEET
.....

TO: Dary Fisher
FROM: Lar
DATE: 4/8
PAGES TO FOLLOW: 1

COMMENTS:
Sorry this took so long -
FAX all tied up my end -

Ark Klum

Tom Ridge

~~Jack Reed~~
Jack Reed

STROM THURMOND
SOUTH CAROLINA
COMMITTEES

ARMED SERVICES
JUDICIARY
VETERANS' AFFAIRS
LABOR AND HUMAN RESOURCES

United States Senate

WASHINGTON, DC 20510-4001

March 1, 1994

The Honorable Carol M. Browner
Administrator, Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Dear Ms. Browner:

I am writing to express my concern regarding the proposed EPA rule requiring that thirty percent of the oxygenate required under the reformulated gasoline (RFG) program be derived from renewable sources.

Please be assured that I understand the agency's commitment to the use of clean burning domestically produced ethanol. However, the burdensome mandate contained in the proposed rule is inconsistent with a major principle of the Clean Air Act, that performance standards for RFG should be "fuel neutral."

That principle requires a market based approach be used in determining which oxygenates will most efficiently and economically meet the clean air standards.

I urge you to review the proposed rulemaking and take whatever action is necessary to ensure that the final rule complies with the principles of the Clean Air Act and avoids costly mandates.

With kindest regards and best wishes,

Sincerely,

(ORIGINAL SIGNED)

Strom Thurmond

ST/lk

THAD COCHRAN
MEMBER

United States Senate

WASHINGTON, DC 20510-2402

COMMITTEE
AGRICULTURE,
AND FORESTRY

COMMITTEE
APPROPRIATIONS

COMMITTEE
GOVERNMENTAL
OPERATIONS

COMMITTEE
RULES AND
ADMINISTRATIVE

SELECT COMMITTEES
INDIAN AFFAIRS

February 17, 1994

The Honorable Carol M. Browner
Administrator
Environmental Protection Agency
401 M Street, S. W.
Washington, D. C. 20460

Dear Ms. Browner:

I am writing to express my concern with the proposed rule which would mandate market shares for oxygenates used in reformulated gasoline (RFG).

While I support the use of domestically produced ethanol and feel it will be very beneficial to farmers and the environment, the proposed rule appears to violate the "fuel neutral" position in the Clean Air Act. Allowing a market-based approach to determine what type of RFG will allow the attainment of clean air standards at the lowest possible price to consumers.

I hope that you will reconsider this rule and allow for the market to determine the best oxygenate for various geographic regions. Thank you for your consideration.

Sincerely,


THAD COCHRAN
United States Senator

TC/hs

PHIL GRAMM
TEXAS

United States Senate
WASHINGTON, D. C. 20510-4302

February 15, 1994

The Honorable Carol M. Browner
Administrator, Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Dear Ms. Browner:

I am writing to express my concern about a proposed EPA rule which would mandate a 30% market share for "renewable" oxygenates used in reformulated gasoline (RFG).

This proposed rule would seem to violate a major principle of the Clean Air Act, that performance standards for RFG should be "fuel neutral." With that standard in place, the free market can determine what type of RFG will help cities attain clean air standards at the lowest possible cost. The efficiency of this program is compromised when set-asides determine the winners and losers in the RFG marketplace.

I urge you to reconsider the wisdom of this proposal and work to ensure a level playing field for RFG. Thank you for your consideration.

Yours respectfully,



PHIL GRAMM
United States Senator

PG:ssm

JOHN B. BRINELL, MICHIGAN, Chairman

SHERROD BROWN, OHIO
 MAJORIE HANCOCK-DEZURBAY,
 PENNSYLVANIA
 HENRY A. WALKER, CALIFORNIA
 CARLOS COLLAZO, ALABAMA
 BOB W. RICE, MISSISSIPPI
 JOHN BRYANT, TEXAS

DAN SCHAFER, COLORADO
 CARLOS J. MOOREHEAD, CALIFORNIA
 JOE BARTER, TEXAS
 FRED SPICER, MICHIGAN

U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, DC 20515-6116

4410 P.F. STURTE, STAFF DIRECTOR/CHIEF COUNSEL

April 21, 1994

The Honorable Hazel R. O'Leary
 Secretary
 Department of Energy
 1000 Independence Avenue, S.W.
 Washington, D.C. 20585

The Honorable Carol M. Browner
 Administrator
 Environmental Protection Agency
 401 M Street, S.W.
 Washington, D.C. 20460

Dear Secretary O'Leary and Administrator Browner:

After much delay, the Environmental Protection Agency (EPA) promulgated on February 16, 1994 new regulations for certification and enforcement of reformulated gasoline (RFG) and provisions for unreformulated or conventional gasoline (59 F.R. 7716). The regulations were effective on March 18 and, pursuant to the Clean Air Act (CAA), they require retail sale of RFG to begin on January 1, 1995.

Our office was informed by EPA this afternoon that EPA has decided to proceed with the reopening of the regulations regarding Venezuelan gasoline by issuing a proposed rule, which we were told would be signed today. This course is deeply disturbing to the Subcommittee. It represents an abrupt reversal in the direction that we had been led by EPA to believe the Administration was heading on this issue over the course of the last several weeks. During that time, we had understood that EPA was considering the issuance of an advanced notice of proposed rulemaking (ANPRM) that would allow a period for comment on the question of whether EPA should proceed at all with a proposed rule. Today, without any prior notice to the Subcommittee, EPA has apparently determined to move forward precipitously without giving any interested parties a fair opportunity to express their views on that question.

For these reasons, as well as for the reasons set forth in our earlier correspondence on this issue, the Subcommittee

The Honorable Hazel R. O'Leary
The Honorable Carol M. Browner
Page 2

requests your reply, pursuant to Rules X and XI of the Rules of the House of Representatives, to the following questions:

1. At the October 29, 1993 hearing by the Subcommittee on Oversight and Investigations on implementation of the CAA, I expressed concern that the delay in promulgating regulations might cause a delay in implementation by those subject to the regulations, resulting a shortage of conventional and reformulated gasoline and higher prices. Any such shortage, whether local, regional, or national, would seriously affect the U.S. economy and general transportation needs.

The EPA and the Department of Energy (DOE) at that hearing assured me that the Administration does not expect shortages. However, the EPA and California did not expect problems when the low-sulfur diesel rule was implemented last year. Thus, I remain concerned. That concern is exacerbated by the Administration's decision to propose a change mandating a renewable oxygenate requirement and to change the February 16 rule to satisfy Venezuela. Both actions create uncertainty and raise difficult legal issues.

Please describe the actions each of your agencies have taken or plan to monitor timely compliance with the regulations and to ensure that there will be no shortages of gasoline of any kind beginning on January 1, 1995, under the regulations as finalized on February 16. To comply with these regulations, the gasoline will likely have to be delivered and stored long before January 1. What situations could arise that might disrupt supplies of either conventional or reformulated gasoline or fuels for other uses, taking into consideration contracts for supplies, changes in contracts to accommodate ethanol changes, permits, tank capacity, transportation, lead time, blending, and other factors? Based on the latest information available to your agencies since the hearing, do you anticipate any shortages or pricing problems? To what extent will these two proposals affect compliance by January 1, 1995? What pricing issues could arise under the RFG rule, with or without these two proposals?

2. EPA staff tells us that Venezuela was not a party to the regulatory negotiation for this rule. Did anyone represent foreign interests, including Venezuela's interests, such as the seller of Venezuelan gasoline in the U.S.? If not, why not? To what extent were the proponents of the ethanol proposal participants in the regulatory negotiation (Reg. Neg.) and signers to the "Agreement in Principle" of August 1991? Please explain to what extent, if at all, this proposal differs with that agreement.

The Honorable Hazel R. O'Leary
 The Honorable Carol M. Browner
 Page 3

3. With regard to the new ethanol proposal, the EPA preamble to the new regulations discusses a February 26, 1992, ethanol proposal made by the EPA pursuant to former President Bush's announcement that he wanted ethanol to effectively compete in the RFG program. As a supporter of the use of ethanol, I share that view. However, the preamble indicates that the EPA had a number of "concerns with respect to its legality, energy benefits, and environmental neutrality" and that since then the "concerns have been enhanced." The preamble then concludes:

While EPA maintains that the program would have provided an economic incentive for the use of renewable oxygenates in reformulated gasoline up to a 30% market share, EPA acknowledges that the proposal would have intruded into the efficient operation of the marketplace, impacting the cost of the reformulated gasoline program. As a result, after taking into account the cost, non-air quality and environmental impacts, and energy impacts, EPA has found itself with no choice but to back away from the renewable oxygenate provisions of the February 26, 1993 proposal.

Representatives Sherrod Brown and Jack Fields, in a February 22 letter to the EPA, state that the EPA "is on record as saying it is without legal authority to issue an ethanol mandate." They refer to EPA's final Regulatory Impact Analysis in support of this statement.

Did the DOE have concerns similar to those mentioned in the preamble by the EPA? Please provide all internal and inter-agency letters, memoranda, and other documents in DOE's and EPA's files about those ethanol related concerns.

Please explain how this new proposal overcomes each of the above concerns. Please provide the statutory authority for such a mandate, taking into consideration the policy of section 250(b) of the CAA.

4. Please explain the origin of the new ethanol proposal and the decision to propose it in December. Was this decision made by the EPA or others? Please provide all internal and interagency memoranda and other documents in EPA's files concerning the making of the decision to propose a new ethanol rule.
5. The enclosed March 7, 1994 article in New Fuels Report alleges that the DOE is considering whether to release a new "controversial" analysis. Please provide a copy of all

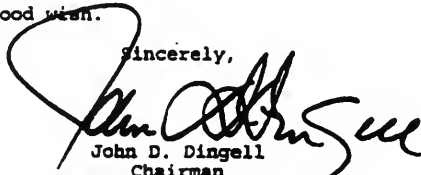
The Honorable Hazel R. O'Leary
The Honorable Carol M. Browner
Page 4

- versions of the analysis to the Subcommittee and include them in the rulemaking record. What is the status of the analysis and is the DOE planning to withhold or delay its release?
6. Please explain the effect of the ethanol mandate on energy use and greenhouse gas emissions from the gathering of the new material through the consumption of the final fuel. Is the effect significant and of concern to the DOE or the EPA or both?
 7. Does the ethanol proposal achieve the primary regulatory objective of the RFG and does it include specific performance criteria to qualify oxygenates as renewable? Does it violate the principle of fuel neutrality under the CAA and the Energy Policy Act of 1992? What are the benefits of the proposal?
 8. If the ethanol proposal is not adopted by the EPA, will ethanol be able to compete effectively in the RFG program? If not, why not?

I request your response to the above matters by May 25, 1994. Please include the letter and your reply in the rulemaking record.

With every good wish.

Sincerely,



John D. Dingell
Chairman
Subcommittee on Oversight
and Investigations

Enclosure

cc: The Honorable Dan Schaefer, Ranking Republican Member
Subcommittee on Oversight and Investigations

The Honorable Henry A. Waxman, Chairman
Subcommittee on Health and the Environment

The Honorable Thomas J. Bliley, Ranking Republican Member
Subcommittee on Health and the Environment

The Honorable Hazel R. O'Leary
The Honorable Carol M. Browner
Page 5

The Honorable Philip R. Sharp, Chairman
Subcommittee on Energy and Power

The Honorable Michael Bilirakis, Ranking Minority Member
Subcommittee on Energy and Power

The Honorable Sherrod Brown, Member
Subcommittee on Oversight and Investigations

The Honorable Marjorie Margolies-Mezvinsky, Member
Subcommittee on Oversight and Investigations

The Honorable Jack Fields, Member
Committee on Energy and Commerce

The Honorable Calvin Kent, Administrator
Energy Information Administration

Mr. Robert E. Rubin, Assistant to the President
for Economic Policy

Ms. Mary Nichols, Assistant Administrator for Air
and Radiation, EPA

JACK BROOKS
9TH DISTRICT TEXAS

COUNTIES
CHAMBERS
CALVESTON
HARRIS (PARTIAL)
JEFFERSON

COMMITTEE
JUDICIARY
CHAIRMAN

ECONOMIC AND COMMERCIAL
LAW SUBCOMMITTEE
CHAIRMAN

Congress of the United States
House of Representatives

Washington, DC 20515
March 11, 1994

The Honorable Carol Browner
Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Administrator Browner:

This letter is written in response to the E.P.A.'s proposed rule to mandate the use of ethanol and ETBE in reformulated gasoline (RFG). I would like to take this opportunity to express my opposition to this proposed addition to the RFG rule which was finalized in December 1993.

This proposal runs counter to Congressional intent and I most respectfully urge you to withdraw it. The 1990 Clean Air Act was to be fuel neutral so that the marketplace would decide winners and losers, not the Congress nor the E.P.A. The Clean Air Act does not give the E.P.A. the authority to provide a mandate for the use of ethanol. This is stated in E.P.A.'s own Final Regulatory Impact Analysis for Reformulated Gasoline.

Additionally, in a letter to the President signed by 71 Representatives and 28 Senators last fall the authors said, "The Act is entirely fuel neutral and only requires achievement of the specified emission reductions." I feel that this letter, which I co-signed, made this point quite clear.

Furthermore, I am concerned by the fact that this mandate will drain the U.S. Treasury and Highway Trust fund of an (E.P.A.) estimated \$340 million per year. All the while, the Federal government will continue to provide subsidies to the ethanol industry amounting to \$550 million per year. As a member who is interested in repairing our decaying infrastructure but who also wishes to continue this administration's efforts to lower the deficit, I find a decision to favor a specific industry, at such a cost to be unreasonable.

As you know, the refining industry must meet a January 1, 1995, statutory deadline to supply RFG. I am concerned that, if adopted, this change may cause a serious disruption in the supply of oxygenates. The RFG-producing industry has invested millions of dollars in reliance upon a fuel neutral RFG rule. The fact that the rule governing the composition of that product may change and is still months from being finalized may mean that this nation may face unavoidable and major shortages of supply, accompanied by rising prices.

March 11, 1994

Page 2

I believe that any introduction of RFG into the marketplace must take into account the need to provide sufficient supplies and a recognition of the manufacturing process behind that effort if we are to avoid an economic crisis. I also believe that we must provide consistent rules regarding reformulated gasoline if industry is to meet the January 1, 1995 deadline.

In addition, several reports, including studies by the Office of Technology Assessment, the General Accounting Office, and the Environmental Defense Fund raise serious questions about the claim that ethanol will reduce greenhouse gas emissions. Consequently, absent clear evidence that ethanol will benefit the environment, I feel the proposal lacks compelling scientific justification for its adoption.

I, therefore, respectfully urge that this proposed rule be withdrawn and would appreciate being advised of your intended actions. In the meantime, with every good wish, I am

James J. ...
John ...

VERMONT V. ROBERTA, California
Bull1105 PRINCE, Pennsylvania
Bull

JAMES L. COCHRAN, Mississippi
JESSE J. BARNETT, D. West Virginia
GONZALES APPELBAUM, Ohio
FRANK R. LUTCH, West Virginia
KERRY L. COCHRAN, Pennsylvania
PAUL F. HARTNETT, House Speaker
WILLIAM B. LUTCH, Illinois
HONORABLE E. WIGG, Jr., West Virginia
JAMES A. THURMAN, Ill. Ohio
PETER A. BODANSKI, Bridge
JOHN HARVEY, Louisiana
BOB BUDENY, Tennessee
JERRY F. COSTELLO, Idaho
AND PAUL R. HANCOCK
GARY LAVIGNE, Texas
PETE COPELAND, Texas
HONORABLE J. J. McNEELY, Illinois
G. JOHN McNEELY, Illinois
DICK SPYTT, New Hampshire
DUD MANSON, Illinois
BARBARANNE COLLIER, Michigan
K. DANIEL McNEELY, Illinois
DANIEL McNEELY, Illinois
LARRY E. BLAKELY, Pennsylvania

JACKIE BAUER, New York
EUGENE McNEELY, Illinois
LOUIS L. BYRNE, Virginia
JAMES CAMPBELL, Tennessee
PAT PATRY, Alaska Governor
LARRY SHIFFRIN, Utah
HONORABLE JAMES BAUMER, Vermont
JAMES S. CLYBURN, South Carolina
CONRAD BROWN, Florida
BARTON (A.), Georgia
JAMES A. HANCOCK, Michigan
GARY McNEELY, California
JACK McNEELY, California
WALTER J. TUCKER, California
HONORABLE JAMES BAUMER, Vermont
PETER W. BARNES, Wisconsin

Paul BARNES, Chief of Staff
Barnes, Wisconsin, Chief Counsel

U.S. House of Representatives
COMMITTEE ON PUBLIC WORKS
AND TRANSPORTATION

SUITE 2105 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515

(202) 225-4472

March 10, 1994

WILLIAM F. CLINGER, Jr., Pennsylvania
THOMAS E. PETTY, Wisconsin
HONORABLE BOB LUTCH, New York
JAMES H. WYDOL, Michigan
JIM BISHOP, Michigan
JOHN J. BUNCE, Ill. Tennessee
DANIEL McNEELY, New York
WILLIAM F. FLYNN, Ill. New Hampshire
TONY BYRNE, Idaho
WALTER F. CLAYTON, Michigan
JOHN R. BROWN, Wisconsin
THE HONORABLE BOB LUTCH, New York
BOB LUTCH, California
AND COLLIER, Georgia
JOHN E. BARNES, Wisconsin
DANIEL E. LEVY, New York
STEVE BROWN, California
LUD McNEELY, New Jersey
PETER L. BLATT, Massachusetts
HONORABLE J. J. McNEELY, California
JAMES L. McNEELY, Michigan
PETER McNEELY, Michigan
JACK BARNES, New York

John McNEELY, Michigan, Chief Counsel

The Honorable William J. Clinton
President of the United States
The White House
1600 Pennsylvania Avenue
Washington, D.C. 20500

Dear Mr. President:

The Environmental Protection Agency (EPA) is in the process of a rulemaking that would mandate in the nine U.S. cities with the worst ozone pollution 30 percent of the oxygenate in reformulated gasoline be derived from renewable sources. EPA proposes the rule in response to the Clean Air Act, and justifies it on the grounds of energy security and environmental enhancement. The proposed rule would affect gasoline blended with ethanol (gasohol) only, and would effectively set aside substantial segments of the market for gasohol in those nine non-attainment areas.

The proposed rule, should it become final and should the existing motor fuels excise tax exemption for gasohol remain in place, would have very significant adverse impacts on the financial integrity of the federal Highway Trust Fund, the ability of the Trust Fund to adequately finance highway infrastructure investments, equity among highway users, and provide totally unnecessary tax subsidies to a growing industry. I am, therefore, writing to voice my grave concerns about this rule, and to suggest a modification.

Currently, gasohol with 10 percent ethanol enjoys two fuel tax exemptions that total 6 cents per gallon -- a 5.4 cents per gallon exemption from the federal motor fuels excise tax and another exemption of 0.6 cent per gallon for fuels that contain ethanol. These exemptions deprive the Highway Trust Fund of some of the revenues it otherwise would receive. Given the historical gasohol consumption level of 8.5 billion gallons per year, the Trust Fund is losing \$510 million every year.

If the proposed rule takes effect, revenue lost to the Highway Trust Fund would be an additional \$465 million a year. But because states could choose to participate in the reformulated gasoline program as part of their implementation plans to comply with the Clean Air Act, revenue lost to the Trust Fund could be far greater

The Honorable William J. Clinton
March 10, 1994
Page 2

than what the proposed rule would directly indicate. If the reformulated gasoline program is widely adopted by the states, as many have indicated they would do, the potential revenue loss by the Trust Fund could well exceed \$1 billion a year. That is on top of the \$510 million loss the Trust Fund currently suffers every year.

It is inconceivable that the Trust Fund could sustain these levels of revenue deprivation without seriously jeopardizing its financial integrity. The ability of the Trust Fund to adequately finance worthwhile highway infrastructure investments that beneficially affect our nation's economic competitiveness would be drastically curtailed. You campaigned on the promise of greater infrastructure investment. The proposed rule, in concert with existing tax breaks for gasoline, would clearly be a step in the wrong direction.

The federal government has been extremely generous -- perhaps too generous -- to the ethanol industry. In addition to the motor fuels excise tax exemption, the industry receives substantial income tax benefits, including the alcohol mixtures credit which blenders can take in lieu of the motor fuels excise tax exemption, the pure alcohol fuel credit for retailers, and the small ethanol producer credit. Cost to the Treasury in terms of lost revenues from the pure alcohol fuel credit is the single fastest-growing line item in the federal budget, rising 133% to \$100 million in FY 1995 from FY 1994, and is expected to continue to increase rapidly.

Congress enacted these subsidies in 1977 to lower the selling price of ethanol fuels so that they would be competitive with other motor fuels. Since then technology has greatly advanced, lowering production costs, and the industry has matured beyond the stage where it needs federal tax assistance. Ethanol fuels consumption has increased more than 22 fold between 1979 and 1991, from 40 million gallons to nearly 900 million gallons. Gasohol now accounts for about 8 percent of the motor fuels market. Today, the ethanol industry boasts a capacity of almost 1.5 billion gallons of alcohol that could be blended to make about 15 billion gallons of gasohol. And that capacity continues to grow. It is doubtful that the industry needs the existing subsidies to remain prosperous.

The proposed rule, if the existing tax subsidies continued, would significantly increase those subsidies, resulting in further distortion of the motor fuels market. The nine ozone non-attainment areas are estimated to consume 25.8 billion gallons of gasoline a year. To meet the 50 percent renewable oxygenate requirement as proposed by the EPA, 7.74 billion gallons of gasohol would be demanded.

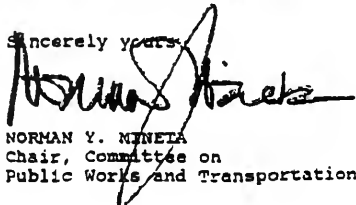
The Honorable William J. Clinton
March 10, 1994
Page 3

We finance our nation's highway infrastructure by user taxes levied on the principle of equity of payments among users — vehicle operators should pay according to the amount of highway they use. Exempting ethanol-blend fuels from the federal motor fuels excise tax does violence to that principle by requiring vehicles running on gasoline to incur a higher per mile cost than an identical vehicle running on gasohol.

The original purpose of the tax subsidies for gasohol was to encourage its use at a time when it was not cost-competitive and we were not requiring its use. If we now, pursuant to the proposed rule, shift our policy to requiring the use of gasohol in parts of the fuels market, we should not continue to also incentivize its use through tax subsidies. We should either require or incentivize the use of gasohol, but it is absurd and fiscally irresponsible to do both.

If you believe that the benefits of the proposed rule warrant making that rule final, then I would urge you to modify the rule to provide that it becomes effective only upon repeal of the tax subsidies for gasohol, and that you advocate that repeal. Doing so would protect the financial integrity of the Highway Trust Fund, help reduce the budget deficit, provide sufficient funds to finance needed highway infrastructure investments, and restore equity of payments among highway users.

Sincerely yours,



NORMAN Y. MINETA
Chair, Committee on
Public Works and Transportation

cc: Hon. Carol Browner
Hon. Leon Panetta

NYM:ac

RON WYDEN

D46008

30 DISTRICT

1111 LOGGOWTH BUILDING
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PORTLAND OR 97222
(602) 221-3700Congress of the United States
House of Representatives

March 21, 1994

ENERGY AND COMMERCE COMMITTEE

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CO-CHAIRMAN

EXPORT TASK FORCE

The Honorable Carol Browner
Administrator
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Administrator Browner:

I am writing to comment on the EPA's proposed rule to mandate the use of ethanol and ETBE in reformulated gasoline (RFG). This rule was proposed as an adjunct to the RFG rule which was finalized in December 1993.

I urge the EPA to withdraw this proposal which mandates the use of specific additives in RFG. This proposal runs counter to Congressional intent to maintain fuel neutrality in the RFG program. Furthermore, I am concerned that EPA's attempt to select the RFG "winner" could create chaos in the marketplace, may cause RFG deliverability problems leading to shortages of supply and possibly increasing the cost of RFG to consumers, and has questionable environmental results as a nationwide program.

EPA's recent proposal to mandate ethanol/ETBE in RFG runs counter to statutory direction. I along with 70 of my colleagues wrote a letter to President Clinton last fall which stated: "The Act is entirely fuel neutral and only requires achievement of the specified emissions reductions." The point cannot be stated any more clearly.

Moreover, the EPA is itself on record as saying it is without legal authority to issue an ethanol mandate. In the Agency's Final Regulatory Impact Analysis, it states: "EPA has no legal authority under the Clean Air Act to provide such a mandate for the use of ethanol." Obviously, there is a conflict of legal interpretation of the Act.

I am also concerned that the EPA's mandate will drain the U.S. Treasury and Highway Trust Fund of an (EPA) estimated \$340 million per year. All the while, the Federal government will continue to provide subsidies to the ethanol industry amounting to \$550 million per year. Given the need to repair decaying infrastructure and to reduce the budget deficit, these costs are simply not reasonable.

The Honorable Carol Browner
March 21, 1994
Page 2

Another concern is that this rule, if adopted, could create serious disruptions in the supply, distribution, and marketing system for RFG. The refining industry must meet a January 1, 1995 statutory deadline to supply RFG. Significant plans and investments have been made in reliance upon a fuel neutral RFG rule. The fact that the rule governing the composition of that product may change and is still months from being finalized may mean that this nation may face unavoidable and major shortages of supply, accompanied by rising prices. I believe that a more orderly transition for introduction of RFG into the marketplace must take into account the need to provide sufficient supplies and a recognition of the manufacturing process behind that effort.

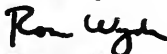
A final concern is the merit of the claim that the environment will benefit by adopting this rule. In fact, air quality may get worse as a result of this rule. Increased ethanol use could increase ozone in the periods before and after summer high ozone season.

In addition, several reports, including studies by the Office of Technology Assessment, the General Accounting Office, and the Environmental Defense Fund, raise serious questions about the claim that ethanol will reduce greenhouse gas emissions. In fact, these studies indicate that an increase in ethanol consumption may increase these emissions. Absent clear evidence that ethanol will benefit the environment, the proposal lacks compelling scientific justification for its adoption.

For these reasons, I respectfully request that the proposed rule be withdrawn. Thank you for your consideration.

With warm regards,

Sincerely,



RON WYDEN
Member of Congress

REC'D MAR 14 1994

FILE _____

HOLD _____

DIR _____

ACTION: *Forward to P. Breyer**3-14-94 - C.W. (1/2 pg)**Dr. Rich - all pages*JAY DICKEY
7th DISTRICT, ARKANSASCOMMITTEES
AGRICULTURE
NATURAL RESOURCES
SMALL BUSINESSCongress of the United States
House of Representatives

March 10, 1994

The Honorable Carol Browner
Administrator, Environmental
Protection Agency
401 M Street, S.W.
Washington, D. C. 20460

Dear Carol:

This is to send along my comments regarding the Environmental Protection Agency (EPA) proposal to mandate the use of a minimum amount of ethanol in the production of reformulated gasoline.

My primary concern is that there be a level playing field in terms of selection of any particular oxygenate for reformulated gasoline required under the Clean Air Act Amendments. However, the EPA Notice of Proposed Rulemaking appears to require that 30% of the oxygen content of reformulate gasoline (RFG) must come from renewable oxygenates, primarily ethanol.

My understanding of the Clean Air Act was that the 1995 requirements for use of reformulated gasoline be essentially neutral as to which oxygenates are used, thus allowing the private marketplace to determine the appropriate balance, while still meeting the statutory requirements for vehicle emissions reductions. Such a process would help alleviate any potential disruptions in RFG supply and distribution.

I urge the EPA to withdraw the proposed rulemaking mandating the use of a minimum amount of ethanol as an additive for RFG, and propose a more fair rulemaking to achieve the same required degree of emissions reductions.

Thanks for your consideration.

Sincerely yours,

Jay Dickey

jh
cc: Tom Parker

*Dr. Carol - you still
there? I'm glad of it.*

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No. 7

House of Representatives

GROWING U.S. DEPENDENCE ON FOREIGN OIL: DOMESTIC INDEPENDENT OIL PRODUCERS ON THE BRINK

HON. JAY DICKY

OF ARKANSAS
BY THE HOUSE OF REPRESENTATIVES
Wednesday, February 1, 1994

Mr. DICKY. Mr. Speaker, The Department of Energy (DOE) announced in its recent annual report that America's dependence on foreign sources of crude continues to grow as domestic crude oil production declines. The DOE report predicts that net imports of foreign oil will reach 60 percent of total U.S. consumption by the year 2010.

As America's dependence on foreign oil escalates, the very foundation of our domestic oil industry—small, independent producers around the country, including most in southern Arkansas—are struggling to stay afloat because their production and other overhead costs far exceed the price now being paid by refiners for domestic and imported crude oil.

The Congress, the administration and all Americans need to understand the seriousness of what is happening, and how it has come about. If the Congress and the administration fail to act soon to provide some meaningful assistance to prevent many small independent producers, who drill approximately 80-85 percent of all domestic wells, from going out of business—as many are right now—then they will be responsible for the long-term threat to our national security. While many people may see lowered foreign sources of oil as a blessing now, as America becomes 60 percent or more in the grasp of oil from foreign countries, we will be at their unmitigated mercy economically and otherwise, when foreign crude oil prices again increase, as they eventually will.

While the buildup of the U.S. strategic petroleum reserve (SPR) may help reduce that burden in the short term, it will not ease us from the economic and supply calamity that would result. Only with support now for incentives to increase domestic production by independent oil producers will we avert a desperate situation in the coming years.

What makes the present plight of America's independent oil industry even more sad, and their situation so understandable, is that U.S. foreign policy also actually contributes to, and subsidizes, foreign crude oil production, at the expense of our domestic production. America does that through U.S. loans by the Overseas Private Investment Corp. (OPIC), most re-

cently to Russia and other former Soviet Republics. As some of my independent oil constituents rightly point out, the United States provides similar foreign oil development loans and grant subsidies through the World Bank, the Export-Import Bank, and our own State Department, to countries such as Mexico and Venezuela. We promote and subsidize crude oil production in those countries while watching America's own domestic oil industry face bankruptcy.

Why do the Congress and the administration continue the policy which is so detrimental to American energy independence and American jobs and tax revenues?

I've met with and heard from many independent producers in my southern Arkansas congressional district regarding the difficulties they are experiencing. In a recent list-serve, one independent oil producer doing business in southern Arkansas sent me a nine-point chronology of how congressional and administration actions since 1972 have brought independent oil producers to the precipice. I want to share that historic perspective with my colleagues.

First: 1972—After oil prices had remained stable from 1966 through 1971, at plus or minus \$3.00/bbl, we were placed under price controls in 1972. In 1973 price controls were taken off all oil products, except crude oil.

Second: 1978—A Democratic Congress extends price controls on oil, and President Ford, for political reasons, refused to veto the bill.

Third: 1977—President Carter keeps price controls, and labels the oil industry public enemy No. 1. Do you remember the three-tiered prices for domestic crude oil—old oil, new oil, and new new oil? Meanwhile, imports came into the United States at world prices, which were much higher.

Fourth: 1980—World oil prices escalate, and President Carter and the Democratic Congress respond with a windfall profits tax on domestic crude oil. This law measures around \$100 billion out of the industry between 1980 and 1988.

Fifth: 1986—Oil prices fell from \$27/bbl to \$16/bbl. Tax law changes also adversely affect the domestic oil industry. Decision allowance is cut again, and R and I intangible drilling expenses are made subject to the alternative minimum tax.

Sixth: 1988—The domestic oil industry has lost one-half of its workforce because of low oil prices.

Seventh: 1990—Environmental regulations escalate and Congress and the Bush administration lock up most of the desirable prospective areas left in the United States. The exodus by the major oil companies from the United States accelerates.

Eighth: 1992—Finally, independents are given some slight tax relief with intangible drilling costs and depletion allowances being taken off the alternative minimum tax structure. The repeat, while welcomed, is probably too little, too late.

Ninth: 1993-94—Oil prices fall to the lowest level in 20 years. President Clinton's Energy Department will study the plight of the domestic oil industry.

That is one person's chronology of mostly ill-advised Federal Government policy actions regarding domestic oil exploration and development. When all that is combined with present low world oil prices, and the earlier mention of U.S. foreign policy that promotes and subsidizes foreign crude oil production at the expense of American domestic production and jobs, plus costly overhead in terms of high-demand electric rates and environmental-landfilling requirements in some States, it serves to demonstrate the difficult situation now faced by independent oil producers in America.

While there are short-term economic benefits produced throughout the United States because of low crude oil prices, unless we help sustain a domestic independent crude oil industry those short-term benefits will eventually become long-term burdens to U.S. economic and national security, which we will have knowingly visited upon our Nation and our future.

Thank you.

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DEMOCRATIC CAUCUSCO-CHAIR
COMMISSION ON ENERGY AND
COMMERCE IN ENERGYDEVELOPING STRATEGIES
AND POLICY COMMITTEE

Congress of the United States
House of Representatives
Washington, DC 20515-2005

March 28, 1994

Ms. Carol A. Browner
Administrator
Environmental Protection Agency
401 M St SW Rm A106
Washington, D.C. 20460-0001

*Revised to:
Randy Smith
11/11/94 / 4/21/94
R*

Dear Ms. Browner:

I am writing in conjunction with the recent Congressional letter organized by Congressmen Fields and Brown. While I support opening up markets to ethanol, I am concerned about mandating a specific percentage.

It is my understanding that the recent ethanol rule is an adjunct to the RFG rule finalized last December. At that time, many of the groups that gave input to the Environmental Protection Agency (EPA), on the RFG oxygenate provisions, understood that the rule would remain neutral in favoring any additives. Mandating such a large percentage of the market for one additive could cause serious supply problems for RFG.

For instance, the distribution network would be required to make substantial capital investments to comply with such a mandate, and it is unclear whether the market would be capable of making these changes by the January 1, 1995 statutory deadline. If the changes proved unrealistic or too costly, an RFG shortage could result. This would clearly affect the economy as a whole.

Since ethanol already receives tax credits, I also believe that the impact on the Highway Trust Fund must be fully assessed before we move forward. Some estimate that a 30 percent ethanol mandate could reduce the trust fund by nearly \$340 million a year. In light of our Nation's many infrastructure needs, this issue must be resolved.

Finally, the Field and Brown letter, as well as the Senate letter on this issue, raise the important question of whether EPA has the statutory authority to select one additive over another. Both letters point out that the statute only specifies emissions reductions, and does not authorize any ethanol mandate.

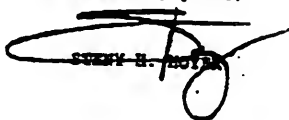
Since there is substantial evidence questioning EPA's authority to issue this mandate, and because of the serious impact this proposed rule could have on the distribution of RFG in the marketplace, EPA should withdraw this rule. I believe ethanol should play an important role in the RFG market, but I do not believe that mandating such a large share of the market is practical. I appreciate your

Ms. Carol A. Browner
March 28, 1994
Page 2

consideration of my concerns and look forward to working with you to
create a reasonable solution.

With kindest regards, I am

Sincerely yours,



STEVEN H. HOFF

EPA'S RESPONSES TO QUESTIONS FROM CONGRESSMAN DAN SCHAEFER

Questions about the Record

QUESTION 1:

Section 307(d)(4)(B)(i) of the Clean Air Act provides the following:

All documents which become available after the proposed rule has been published and which the Administrator determines are of central relevance to the rulemaking shall be placed in the docket as soon as possible after their availability.

Please indicate whether the Administrator has determined that the following documents are of "central relevance" to the renewable oxygenate rule and placed them in the appropriate public docket, i.e., docket No. A-93-49:

- "The Impact of a Proposed EPA Rule Mandating Renewable Oxygenates for Reformulated Gasoline: Questionable Energy Security, Environmental, and Economic Benefits?" by Vito Stagliano, Resources for the Future, February 1994.
- "Evaluation of the EPA's Proposal for Renewable Oxygenates," by Dr. James Sweeney, May 1994.
- The attached compendium of Congressional letters.

What other documents, records, correspondence or other information, if any, has the Administrator determined are of "central relevance" to the renewable oxygenate rulemaking? Have these documents been placed in docket No. A-93-49?

RESPONSE:

Each of the documents listed above has been included in the docket for the renewable oxygenate rule (docket NO. A-93-49). All documents submitted to the Agency through comments or other correspondence received or through meetings with non-Agency personnel were included in the docket. In addition, all documents used by EPA in developing the final rule were also entered into the docket. In general, EPA does not determine document by document whether the criteria of §307(d)(4)(B)(i) have been met; instead, EPA routinely submits all documents to the docket as described above.

QUESTION 2:

In its testimony before the Subcommittee on Oversight and Investigations on June 22, 1994, EPA stated that it would include into the official record the results of the Department of Energy's June 8, 1994, study of the renewable oxygenate rule entitled "Analysis Memorandum: Energy Requirements and CO₂ Equivalent Emissions." Please indicate whether this study has been included in the official docket of the renewable oxygenate rulemaking.

RESPONSE:

Yes, the cited document is in the docket.

QUESTION 3:

What is the relevant docket for EPA's renewable oxygenate rule under section 307(d)(2) of the Clean Air Act? How does the docket relate to public docket A-92-12 and other EPA dockets for fuel regulations? Please provide a copy of the statement in the Federal Register in which the public was directed to "the docket" relating to the EPA's renewable oxygenate rule.

RESPONSE:

A copy of the Federal Register notice for the renewable oxygenate proposal is included here as Attachment A. As the "ADDRESSES" section on page 68343 indicates, the docket for this rule is A-93-49 with dockets A-92-12 and A-91-02 incorporated by reference. The public is given information on how they can obtain access to materials in this docket. The difference between this docket and the others listed above is that docket A-93-49 contains information specific to the development of the renewable oxygenate program, while the other dockets contain information relevant to the development of the reformulated gasoline rule promulgated in December 1993. The public was directed to examine the other dockets for further information related to reformulated gasoline that may be relevant to the development of this rule.

QUESTION 4:

Please identify the statement of basis and purpose for EPA's renewable oxygenate rule. Did the eight pages of the preamble to the renewable oxygenate proposal summarize all of the factual data on which the proposal was based, all of the methodologies used in obtaining the data and in analyzing the data, and all the major legal interpretations and policy considerations underlying the proposed rule?

RESPONSE:

EPA's basis and purpose for the renewable oxygenate proposal are presented throughout the Preamble to the proposal; see Attachment A. EPA considered all information available to it as of December 1993 in developing the regulation proposed on December 23, 1993. The Preamble identified much of the information that was used. In many cases, the reader was referred to the Technical Support Document or to items in the docket to the rule (A-93-49) or the dockets for the reformulated gasoline rule (A-91-02 and A-92-12) for additional information. EPA believes that all information used in the development of the proposal was adequately identified for the public in either the Preamble, the Technical Support Document, or the docket A-93-49.

QUESTION 5:

By requesting comments in at least two dozen specific areas throughout the renewable oxygenate proposal, did EPA intend to support the proposal through factual data, methodologies, analyses, interpretations and policy considerations submitted by the public after EPA's proposal was published and before the end of the public comment period? Did EPA consider publishing an advanced notice of proposed rulemaking (ANPRM) instead of a proposed rulemaking regarding the renewable oxygenate proposal? If not, why not?

RESPONSE:

Through the Notice of Proposed Rulemaking, EPA sought to collect any and all information

available from the public on each aspect of the proposal. We identified specific issues of concern as well as general topics related to the rule on which we sought input from the public. We considered all information provided to us during the development of the final rule.

Starting with an Advanced Notice of Proposed Rulemaking (ANPRM) is always a viable option in any rulemaking activity. However, the timing of the start of the reformulated gasoline program did not permit EPA ample time to pursue this route. Since the public dockets for the RFG rule (A-91-02 and A-92-12) contain substantial evidence and background information on the issues of the concerns of the ethanol industry and previously proposed programs for the use of renewable oxygenates in reformulated gasoline, the Agency felt it was unnecessary to start with an ANPRM and instead moved forward with a Notice of Proposed Rulemaking in December 1993.

QUESTION 6:

Has EPA included all of the interagency review documents (as described in section 307(d)(4)(B)(ii)) in docket No. A-93-49? Please provide copies of the docket showing that all such documents have been included.

RESPONSE:

All interagency review documents have been included in the docket. A copy of the docket index is attached as Attachment B.

Statutory Authority

QUESTION 1:

In the December 21, 1993 draft Final Regulatory Impact Analysis For Reformulated Gasoline, EPA, in discussing various options for encouraging ethanol use in RFG, rejected a mandate to "use ethanol as the oxygenate in certain fraction of the RFG the [refiners] produce." EPA said:

"EPA does not believe that it has the authority under either §211(c) or §211(k)(1) to impose the suggested provisions..."

Nevertheless, in the preamble of the renewable oxygenate proposal, EPA cites §211(k)(1) as authority for this proposal. Please explain this discrepancy and EPA's statutory authority for this mandate?

RESPONSE:

The provisions referred to in the text quoted above were provisions suggested in comments EPA received on the original ROS (the so-called Bush Proposal, proposed by the Agency under direction of former President Bush). These comments said EPA should mandate either the use of ethanol or the production of sub-RVP RBOB for blending with ethanol instead of the more general renewable oxygenate requirement proposed. The provisions as suggested, however, contained many of the same problems as the ROS, and the quote above means EPA would not be authorized to adopt them based on those problems.

The final renewable oxygenate program does not single out a specific oxygenate. Rather, it provides that a minimum amount of renewable oxygenates will be used, resulting in various

benefits for the nation as discussed throughout the final Preamble. The legal justification for this action is discussed thoroughly in Section III.A of the Preamble.

To summarize, EPA believes that this action is fully consistent with the authority granted in Section 211(k). The legislative history of the development of Section 211(k) supports this interpretation and fails to show a contrary intent.

QUESTION 2:

Congress carefully maintained a policy of fuel neutrality in both the Clean Air Act Amendments of 1990 (CAAA) and the Energy Policy Act. During the debate of the CAAA and the Energy Policy Act, the U.S. Congress considered and rejected several proposals that would have mandated increased use of ethanol. Please explain how the renewable oxygenate mandate is consistent with this policy of fuel neutrality.

RESPONSE:

The Agency's interpretation of the relationship between Congress' desire for fuel neutrality in the debates over the 1990 Clean Air Act Amendments (CAAA) and the 1992 Energy Policy Act are discussed in detail in Section III.A.3.d of the Preamble to the Final Rule for the Renewable Oxygenate Program. EPA has concluded that the renewables requirement is consistent with the authority granted the Agency by Congress in the CAAA.

QUESTION 3:

EPA's renewable oxygenate rule would establish a standard that would require that renewable oxygenates be produced with a net 20% reduction in carbon dioxide emissions. What legal authority does EPA have to establish such a standard?

RESPONSE:

In the proposal, EPA identified for consideration the option to establish a performance standard for renewable oxygenates based upon emissions of CO₂ and/or other greenhouse gases. However, as discussed in Section III.C of the Preamble (to the final rule), the Agency decided not to promulgate such standards. The reasons for this decision included: 1) the degree of scientific uncertainty associated with quantifying energy consumption and emissions of different greenhouse gases throughout the entire life cycle of various oxygenates; 2) the lack of scientific consensus on the relative warming potential of various greenhouse gases, notably VOC and NO_x (the bulk of the emissions other than CO₂); 3) the difficulty and cost associated with collecting and verifying the necessary data to implement a performance-based standard for renewable oxygenates.

Use of Mandate

QUESTION 1:

On page 18 of its testimony presented to the Oversight and Investigations Subcommittee on June 22, 1994, EPA acknowledged that Congressional initiatives have helped renewable fuels and oxygenates to grow into a significant industry. Notwithstanding other Congressional initiatives, Congress maintained fuel neutrality in the Clean Air Act Amendments. What specific information has EPA received to reach the conclusion that renewable oxygenates will not continue to make a significant contribution to gasoline markets, and thereby justify any specific requirement for their use at a prescribed percentage?

QUESTION 2:

Why is it necessary to have a mandate for renewable oxygenates when the ethanol industry testified at the EPA hearing on January 14, 1994, that ethanol production capacity will double by 1996 without a mandate?

RESPONSE TO QUESTIONS 1 & 2

The current situation in the oxygenate market indicates that in the initial years of the renewable oxygenate program, ethanol or ETBE (produced from ethanol) will be the primary renewable oxygenates used in RFG. As discussed in Sections I and IV of the final Regulatory Impact Analysis for the renewable oxygenate rule, ethanol production capacity and use is increasing dramatically as a result of the reformulated gasoline program and other programs. However, the growth seems to be short of what could occur had some of the restrictions inherently present in the RFG program not been necessary. Based on experience with the oxygenated fuels program, renewable oxygenates likely would have reached about 30 percent of the total RFG oxygenate requirement if such restrictions did not exist.

Furthermore, EPA believes this rule is necessary to ensure that the RFG program is consistent with other Congressional and Administrative efforts in support of renewable fuels. Past Administrations and the Congress have long promoted the use of renewable fuels through a variety of mechanisms, including extensive research at USDA and DOE, the 54 cent/gallon tax credit for renewable fuels, the RVP waiver for conventional fuel provided in the Clean Air Act, and the oxygenate requirements for winter oxygenated fuel and reformulated gasoline (RFG). The current Administration and Congress continue to support renewable fuels. When developing the RFG program, EPA recognized that some of the provisions of the program are less than favorable to the renewable fuels industry, causing new investments in renewable fuels to be uncertain. Thus, EPA's renewable oxygenate program represents an effort by the Agency to promote the long-term goal of increased renewable fuels use and at the same time reduce emissions of ozone-forming and toxic air pollutants. The renewable oxygenate program contributes less than one percent of total U.S. gasoline volume.

QUESTION 3:

Some have said that, absent incentives and/or mandates, ethanol will not have a role in reformulated gasoline. However, in the RFG preamble, EPA stated:

EPA...does not agree that ethanol is excluded from the marketplace under the provisions of the April 16, 1992 proposal. In fact, as under the recently implemented wintertime oxygenated fuels program, ethanol is expected to significantly increase its market share under the reformulated gasoline program.

EPA makes substantially the same statement several additional times in its December 21, 1993 draft Final Regulatory Impact Analysis For Reformulated Gasoline. If these statements truly reflect EPA's thinking, why does EPA find it necessary to propose a mandate for the use of renewable oxygenates?

RESPONSE:

This renewable oxygenate program is expected to yield energy benefits and potentially yield global warming benefits that would enhance the substantial environmental benefits expected from the reformulated gasoline program. EPA still stands behind its statement that renewable oxygenates would not be excluded from the RFG program without this program. EPA believes, as stated above in the response to Questions 1 & 2, that renewable oxygenate

production capacity would come on line even without this program. However, EPA does not believe that renewable oxygenates would reach the level currently achieved in the oxygenated fuels program (which would likely be achieved under the RFG program absent the VOC emission performance requirements) without the 30% requirement.

QUESTION 4:

The preamble to EPA's renewable oxygenates proposal discusses a February 26, 1992 ethanol proposal made by EPA pursuant to former President Bush's announcement that he wanted ethanol to effectively compete in the RFG program. However, the preamble indicates that the EPA had a number of "concerns with respect to its legality, energy benefits, and environmental neutrality" and that since then the "concerns have been enhanced". The preamble then concludes:

While EPA maintains that the program would have provided an economic incentive for the use of renewable oxygenates in reformulated gasoline up to a 30% market share, EPA acknowledges that the proposal would have intruded into the efficient operation of the marketplace, impacting the cost of the reformulated gasoline program. As a result, after taking into account the cost, non-air quality and environmental impacts, and energy impacts, EPA has found itself with no choice but to back away from the renewable oxygenate provisions of the February 26, 1993, proposal.

How does EPA's recently promulgated rule overcome these concerns?

RESPONSE:

EPA has relied heavily on the public comment period and on interactions with participants in the regulatory negotiation to analyze issues and make any necessary modifications prior to promulgating the final rule. Such was the case with the "Bush" proposal, wherein EPA requested comments in the proposal on numerous aspects of its provisions to solicit help and assistance in evaluating any concerns and allow EPA to make the necessary adjustment to the final rule. In the case of the Bush proposal, however, the more in-depth evaluation of these concerns led to the conclusion that the proposal should not be finalized. The Preamble and Regulatory Impact Analysis to the December 1993 final rule for reformulated gasoline provide an in-depth analysis of the various reasons why EPA rejected the February 1993 Bush proposal.

Many of the concerns with implementing the Bush proposal, however, such as reduced environmental benefits, lack of energy benefits, and the program being too burdensome, are not present with the Renewable Oxygenate Requirement. Since ethanol is not given credit toward meeting the requirements of the program during the summer months, the summertime VOC emission increases and lack of energy benefits that would have resulted from the Bush proposal are avoided. In addition, the provisions of the renewable oxygenate program are much more feasible to implement and as a result much less burdensome to the industry than the Bush proposal would have been. A full explanation of EPA's legal authority for the Renewable Oxygenate Program can be found in Section III.A. of the Preamble to the final rule.

Supply Distribution

QUESTION 1:

In the preamble to its renewable oxygenate proposal, EPA cited the difficulties encountered during the introduction of low sulfur diesel fuel last October in deciding to require a one-month transition period for RFG in the distribution system. A very large part of the nation's production and sales of ethanol is concentrated in the Midwest, quite some distance from

cities on the East and West coasts where renewable oxygenates will be required in RFG. One notable difference between the diesel situation last year and the upcoming introduction of RFG is that low sulfur diesel is manufactured and shipped through the same facilities as was diesel prior to the low sulfur regulation, yet problems in distribution still occurred.

- a. Given that vast quantities of ethanol will have to be uprooted from traditional markets and transported to opposite ends of the country in a distribution system that has never been tested for this use, what assurances can EPA provide that the existing distribution system can accommodate this mandate? How will EPA assure motorists that supply problems will not accompany the introduction of RFG?
- b. What plans and/or actions has EPA taken, especially given the significant delays in promulgating a regulation for RFG, to assure timely compliance with the revised regulations and to ensure that there will be no supply, distribution or price disruptions of any kind on January 1, 1995?
- c. Isn't it true that the ethanol mandate will interfere with the way gasoline is transported today, *i.e.*, primarily through fungible pipelines?
- d. Won't the mandate require segregated shipments of RBOB (reformulated blendstock for oxygenate blending)? If segregated shipments are indeed necessary, won't that result in reduced overall pipeline shipping capacity? If the overall shipping capacity is reduced, won't this result in shortages of conventional gasoline in some areas?

RESPONSE:

EPA specifically requested comments on the issue of the appropriate level of the renewable oxygenate requirement, the potential need for a phase-in period, and supply-related issues generally. EPA received several responses on these issues from sources including the Department of Transportation, USDA, the ethanol and petroleum industries, and others.

EPA fully considered all of these comments. In addition, EPA has conducted a detailed analysis to determine whether sufficient renewable oxygenate supply, distribution, tankage, and blending capacity would be available in 1995 and 1996 to meet the program requirements. EPA has determined that it is feasible for sufficient feedstocks, production capacity, transportation capacity, and blending capacity to be available to meet the full 30 percent requirement by 1996. EPA's analysis shows that current ethanol production is sufficient to meet the needs of the program for 1995. However, EPA considers it appropriate to minimize to the greatest extent possible any disruption that would be caused by the diversion of ethanol from existing markets. Hence, the final rule includes a phase-in schedule of 15% in 1995 (prior to January 1, 1996) and 30% thereafter. This phase-in will minimize the need to shift ethanol from existing markets or to transport it to markets far from the regions where it is produced. It will also allow the time necessary to build additional capacity, particularly for storage and blending. Section I of the Regulatory Impact Analysis provides additional details of EPA's analysis.

EPA has begun to work with affected parties to ensure smooth implementation of this important program. Among other things, we have held several public workshops and issued an extensive Question and Answer guidance document on July 1. We will continue to work closely with industry by having additional workshops and information updates. We are also working closely with the Department of Energy to monitor the supply of RFG.

EPA, in cooperation with DOE, has also established a RFG Implementation Taskforce. The purpose of the RFG Taskforce is to provide a more formal forum for all affected parties, including refiners, blenders, marketers, and pipeline operators to discuss and resolve issues associated with the implementation of the program. A supply and distribution workgroup has been established by this Taskforce to explore issues associated with the availability and logistics of the delivery of RFG and conventional gasoline.

Because of materials incompatibility and ethanol's affinity for water (which exists within pipelines), ethanol and ethanol blends cannot be shipped via petroleum pipelines. (ETBE, however, can be transported via pipeline.) As a consequence, there will be an increase in the volume of ethanol shipped via other modes (rail, barge, truck).

QUESTION 2:

Substantial amounts of ethanol are used to achieve reductions in carbon monoxide non-attainments areas.

- a. What effect will the ethanol/ETBE mandate have on the oxygenated fuel programs for carbon monoxide nonattainment areas?
- b. Isn't the renewable oxygenate mandate likely to shift ethanol supplies away from the oxygenated fuel market and into the RFG market? Isn't this likely to increase costs to consumers in carbon monoxide nonattainment areas?
- c. Couldn't such a shift cause shortages for the oxygenated fuels program and potentially increase consumers' costs?

RESPONSE:

In developing the final rule, EPA examined current levels of ethanol production and current demand for ethanol (outside of the reformulated gasoline program). In order to address concerns over displacement of ethanol from existing markets, EPA promulgated the renewable oxygenate program with a two-year phase-in of the requirement for the use of renewable oxygenates in reformulated gasoline, 15% in the first year (1995) and 30% in each year thereafter. As discussed in Section III.F of the Preamble, EPA believes that a phase-in is necessary to limit the displacement of ethanol use from current markets (as well as limiting supply disruptions and severe cost increases resulting from the current limitations on ethanol storage and blending).

QUESTION 3:

What is the likely competitive effect of providing a guaranteed ethanol market where a single company dominates the ethanol market?

RESPONSE:

As discussed in Section II of the Preamble, the renewable oxygenate program will encourage the development and use of all renewable oxygenates (including ethanol and ETBE, the latter particularly beginning in the year 2000 when the Phase II reformulated gasoline standards take effect) produced from a variety of feedstocks (grains, cellulosic materials such as wood, waste products). As a result, competition in the renewable oxygenate market will be encouraged and enhanced. This is evidenced, as discussed in Section I of the Regulatory Impact Analysis, by the large number of new ethanol production facilities expected to come on-line by the end of 1996.

QUESTION 4:

In promulgating the RFG rule, EPA has imposed new requirements for additional reporting, recordkeeping, and quality assurance. The renewable oxygenate mandate will add significantly to this burden. Both of these rules will add new requirements. Has EPA examined the impact (including market dislocations and possible closures) of this proposed renewable oxygenate mandate on the refining industry or the consumer? If not, please describe EPA's rationale for failing to conduct such an analysis.

RESPONSE:

EPA has prepared a Regulatory Impact Analysis (RIA) for the renewable oxygenate rule and this RIA has been submitted to OMB for review. The RIA addresses the additional costs associated with the renewable oxygenate rule. Furthermore (and as discussed in greater detail in the response to the previous questions), EPA has conducted an analysis to determine whether sufficient capacity exists to implement the renewable oxygenate mandate and has stressed the importance of keeping market disruptions to a minimum.

RFG Implementation Issues**QUESTION:**

According to the petroleum industry, EPA's failure to issue a direct final rule has denied the industry crucial guidance they needed on a timely basis. For example, 1990 gasoline baseline with full documentation had to be submitted by June 1, 1994, but EPA has failed to respond to industry's request for written clarification of the requirements. Given the tardiness of this clarification, some refiners may not be able to or may choose not to revise their baseline in time to meet production requirements in September for some areas.

- a. Wouldn't you agree that this baseline should be optional rather than a requirement if a refiner has already submitted a baseline in accord with his best interpretation of the final rule.
-
- b. How will EPA respond to the large volume of baseline submissions? What resources does EPA have to review these baseline submissions?
- c. Can EPA commit to approving these submissions by September?

RESPONSE:

EPA has taken the position that baselines may be updated to reflect changes made in the DFRM. Many of the changes made in the DFRM are special situations that would impact only a few submitters. As was the case previously, EPA reserves the right to request any additional information or corrections needed to complete the review and approval of a baseline.

EPA has made the review and approval of the RFG baselines a top priority. Review of those baselines received by the June 1, 1994 deadline is well underway. However, many of the baseline submissions received were not complete, and an equally large volume of submissions is not due until September 1, 1994. Baseline submissions that were complete and received by June 1, 1994 could be approved by September. However, given the volume of incomplete and late submissions, most baselines will not be approved by then. In the July 1, 1994 RFG Question and Answer document, EPA said that refiners may produce RFG before a baseline is formally approved, but that refiners are responsible for meeting, on average, the baseline levels that ultimately are approved. Refiners should have sufficient knowledge to determine the likely baseline levels, and to plan accordingly, however.

Permitting for RFG Facilities

QUESTION:

When this Subcommittee held its hearing on aspects of the Clean Air Act Amendments of 1990 last October, there were questions concerning actions that EPA had taken to challenge activities by some refiners to convert refineries to make reformulated gasoline. In short, EPA was challenging whether refiners had the necessary permits to proceed with construction of reformulated gas facilities.

- a. Given the obvious concerns of the Subcommittee that refiners and marketers may not have adequate time to comply with the reformulated gas rule, can you assure the Subcommittee that EPA is doing everything possible to expedite, rather than hinder, the issuance of permits necessary for refiners to make reformulated gasoline?
- b. Please provide the Subcommittee with a State-by-State (or region-by-region) breakdown of the status of Federal, State, or local permits required by the reformulated gasoline program, and a list of the reasons why refiners may not have yet received the necessary permits.

RESPONSE:

- a. The Clean Air Act is structured so that primary responsibility for the issuance of permits rests with state or local air pollution agencies. Therefore, EPA's role is limited to providing technical assistance and oversight for those agencies. EPA has given high priority to expeditious review of proposed permits for RFG projects. When requested by permit applicants or air pollution control agencies, EPA has provided technical and policy assistance during the application and review process. EPA firmly believes its actions have helped move forward, rather than hinder, the issuance of air quality permits for RFG projects.

As you may know, EPA has initiated enforcement against a refiner who began construction without construction permits required under the Clean Air Act. While EPA is committed to assist in the expeditious issuance of permits, we also will continue to act against those sources that seek competitive advantage by ignoring the requirements of the Clean Air Act.

- b. As we state in (a), above, permits are generally issued by state or local agencies. EPA does not generally receive information concerning the status of permits in process. While EPA could gather that information, it would be extremely burdensome for the Agency to do so. The state and local agencies responsible for permitting are in the best position to respond to such request.

ATTACHMENT A

Federal Register / Vol. 58, No. 246 / Monday, December 27, 1993 / Proposed Rules 68343

early and normal retirement benefits stated in the form of a joint and survivor annuity; descriptions of the projections and assumptions on which the benefit statement is based, or the date of the information on which the benefit statement is based.

23. What variations, if any, in the information required to be contained in benefit statements should be considered for insurance contract plans (as described in section 301(b) of ERISA and section 412(i) of the Code); individual account plans; employer stock plans; and class-year plans?

24. What information should be required to be furnished participants with no vested benefits?

25. Should benefit statements for underfunded plans be required to include information concerning the funding status of the plan and the benefit coverage limits of the Pension Benefit Guaranty Corporation?

Recordkeeping

26. What methods of record retention should be permitted for individual benefit information?

27. How long should individual benefit information be required to be retained?

28. In the case of multiple employer plans, what reporting requirements should be imposed on employers with respect to the furnishing of individual benefit information to the plan administrator?

29. Identify and explain any individual benefit recordkeeping problems which are unique to multiple employer plans. How should these problems be addressed?

All submitted comments will be made a part of the record of proceeding referred to herein and will be available for public inspection.

Signed at Washington, DC this 17th day of December, 1993.

Oletha Berg,
Assistant Secretary for Pension and Welfare Benefits, U.S. Department of Labor.

(FR Doc. 93-31168 Filed 12-23-93; 8:45 am)
BILLING CODE 4810-28-M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 80

[AMS-FRL-4817-0]

Regulation of Fuels and Fuel Additives: Renewable Oxygenate Requirement for Reformulated Gasoline

AGENCY: Environmental Protection Agency.

ACTION: Notice of proposed rulemaking.

SUMMARY: This proposal concerns a program to maximize the energy and other benefits from the reformulated gasoline program, while obtaining significant emission reductions in ozone forming volatile organic compounds and toxic air pollutants. Specifically, the program would require that 30 percent of the oxygen content of reformulated gasoline come from renewable oxygenates. Technical analyses show that the production of such oxygenates is more energy efficient than that of other potential oxygenated additives and the use of such oxygenates would offset the use of imported crude with fuels produced from corn, grain, wood, and even organic waste. As a result, the program would reduce foreign oil imports, create investment and jobs in America, reduce fossil energy use, and lower emissions of harmful greenhouse gases. This proposal also contains a description of the proposed enforcement mechanisms associated with this requirement.

DATES: The comment period will close on February 14, 1994. EPA will hold a public hearing on this proposal on January 14, 1994, in the Washington, DC area beginning at 9 a.m.

ADDRESSES: Send comments to Public Docket A-93-49 at the address below. Materials relevant to this NPRM are contained in Public Dockets A-91-02, A-92-12, and A-93-49 located at room M-1500, Waterside Mall (ground floor), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. The docket may be inspected from 8 a.m. until 12 noon and from 1:30 p.m. until 3 p.m. Monday through Friday. A reasonable fee may be charged by EPA for copying docket materials. The public hearing will be held at the Hyatt Regency, Crystal City, 2799 Jefferson Davis Highway, Arlington, VA 22202. Telephone: 703-418-1234.

FOR FURTHER INFORMATION CONTACT: Paul Machielse, Regulation Development and Support Division, U.S. EPA (RDS-12), 2565 Plymouth Road, Ann Arbor, MI 48105. Telephone: (313) 668-4264.

Joann Jackson-Stephens, Regulation Development and Support Division, U.S. EPA (RDS-12), 2565 Plymouth Road, Ann Arbor, MI 48105, telephone: (313) 668-4276.

To request copies of this action contact: Delores Frank, Regulation Development and Support Division, U.S. EPA (RDS-12), 2565 Plymouth Road, Ann Arbor, MI 48105, telephone: (313) 668-4295.

SUPPLEMENTARY INFORMATION:**Background**

The federal reformulated gasoline program is designed to improve air quality by reducing motor vehicle emissions of toxic and tropospheric ozone-forming compounds, as prescribed by section 211(k) of the Clean Air Act as amended (CAA or the Act). The Act mandates certain requirements for the reformulated gasoline program. Section 211(k)(2) requires a minimum content of 2.9 weight percent oxygen and maximum content of 1.0 volume percent benzene and Section 211(k)(3) sets minimum performance standards for emission reductions of ozone forming volatile organic compounds (VOC) and air toxics. In addition, Section 211(k)(1) directs EPA to promulgate regulations establishing requirements for reformulated gasoline, and that such regulations require the greatest reductions in VOC and toxics emissions, taking into consideration the cost of achieving such emission reductions, non-air-quality and other air-quality related health and environmental impacts and energy requirements. To obtain the benefits described below from this proposal, and to make sure these emission standards are met in such a way as to properly reflect these statutory criteria, today's action proposes a year-round requirement that thirty percent of the statutory oxygen compositional specifications for reformulated gasoline be obtained from renewable oxygenates. To ensure that the ozone benefits of the reformulated gasoline program are unaffected by today's proposal, it is EPA's expectation that only renewable oxygenates that do not exhibit volatility related commingling effects when mixed with gasoline (e.g. ETBE) will be acceptable during the VOC control period (summer months) to comply with the requirements being proposed today. Both ETBE and ethanol are expected to be acceptable during the non summer months. Also included in today's proposal are provisions for averaging and credit trading in order to provide maximum flexibility for refiners and fuel importers.

There is considerable history behind EPA's decision to propose a renewable oxygenate requirement. In response to EPA's April 1992 publication of the Supplemental Notice of Proposed Rulemaking (SNPRM) (57 FR 13416, April 16, 1992) for reformulated gasoline, members of the ethanol industry submitted comments to EPA which expressed their concern that the proposed reformulated gasoline

rulemaking, would effectively exclude ethanol from the reformulated gasoline market. In an attempt to address the role of ethanol, the Agency proposed a renewable oxygenate program (ROP) (58 FR 11722, February 26, 1993) at the direction of former President Bush to promote the use of ethanol and other renewable oxygenates in reformulated gasoline. The objective of the ROP was to promote the use of renewable oxygenates in the reformulated gasoline program in the summer while, theoretically, maintaining the overall environmental benefits of the program.

As explained in the preamble and RIA for the reformulated gasoline final rule, EPA had a number of concerns with respect to the ROP proposal, and decided not to promulgate the ROP. The ROP proposal created an increase for the use of renewables but in no way assured their use. Also, EPA's analysis indicated that the proposal would not maintain the environmental benefits instead VOC emissions would increase significantly under such a proposal. The commingling effect of mixing ethanol blends with non-ethanol blends in consumers' fuel tanks, the effect of ethanol on the distillation curve of the blend, and unrestricted early use of the complex model would have sacrificed 40 to 50 percent of the VOC control that is required under section 211(k)(1) for reformulated gasoline during the summer.

The final rulemaking for reformulated gasoline, consistent with the agreement reached through regulatory negotiation, does not include additional provisions to promote the use of renewable oxygenates. Therefore, uncertainty remains regarding the magnitude of the role renewable oxygenates will play in reformulated gasoline.

EPA believes a number of arguments support a program to ensure a minimum level of participation of renewable oxygenates in reformulated gasoline. The U.S. now imports nearly half of the oil we use. Half of our trade deficit is from imported oil, and it is getting worse. Since 1972 we have spent 1.3 trillion dollars on imported oil—money which could have provided investment and jobs in America. Growing oil consumption not only diminishes a limited primary energy source but also increases emissions of greenhouse gases. Expanding the use of renewable fuels, such as ethanol, from resources such as corn, grain, wood, organic waste products, and even garbage can help clean up our air, cut dependence on foreign oil, create investment and jobs in America, reduce primary energy use by 20% or more as compared to

nonrenewable oxygenates, and lower emissions of harmful greenhouse gases.

Today's proposal is intended to address the role of renewable oxygenates in reformulated gasoline by introducing a program to increase the use of such oxygenates in a manner that ensures environmental, energy, and economic benefits. As just summarized, EPA believes there are significant benefits for renewable oxygenate use in reformulated gasoline, and today's proposal is based on EPA's general authority in Section 211(k)(1) to establish requirements for RFG and the directive in section 211(k)(1) to consider such environmental, energy, and economic benefits in structuring the emission reduction requirements for the reformulated gasoline program. Today, the United States imports nearly half of all oil used, with two-thirds of this oil being used for transportation. Dependence on imported oil costs the U.S. \$40–80 billion each year, and the cumulative cost over the last 20 years has reached \$1.3 trillion (in current dollars). Payments for imported oil are the largest single cause of the U.S. international trade deficit, a deficit which reached \$84 billion in 1992 and is expected to exceed \$100 billion in 1993. Payments for imported oil represent a transfer of wealth from the United States to oil-exporting countries. Absent policies to reverse current trends, projected U.S. dependence on imported oil will increase to 60–70% by the year 2010.

Money now spent on imported oil or oxygenates could instead be spent for renewable fuels made from feed stocks currently grown or processed in the United States. This would keep capital in the U.S., provide domestic jobs, strengthen our national security, and support a wide variety of American agricultural and fuel industries. Economists have estimated that 25,000 to 30,000 jobs are lost for every billion dollars which is sent abroad to pay for imports. To the extent that the renewable component of the reformulated gasoline program keeps American money in the country, it will keep American jobs here as well. Assuming that the renewable component is met with ETBE in the summer months and ethanol during the rest of the year, and also assuming this 30% renewable component displaces imports for foreign oxygenates, the program will create and sustain in excess of 10,000 new domestic jobs. As discussed below, reformulated gasoline made with renewable oxygenates requires the use of less imported crude oil and less energy.

In addition, EPA believes there is a justification for a renewable oxygenate program based on environmental benefits from renewable fuels. There is growing concern about greenhouse gas emissions, particularly from fossil fuels; in fact, the Climate Change Action Plan identified transportation as the sector with the greatest potential for growth in greenhouse emissions. The number of vehicle miles traveled in the United States has doubled over the last twenty years and is expected to continue to grow at a rapid rate. Expanding the use of renewable fuels from feed stocks such as corn, grain, wood, organic waste products, and even garbage, can potentially yield large reductions in the emissions of greenhouse gases. Today's proposal is consistent with current national efforts to stabilize greenhouse gas emissions by the year 2000. EPA believes that the use of renewable fuels also reduces consumption of primary energy sources such as petroleum and natural gas.

The Agency believes that the 30 percent requirement for renewable oxygenates is an appropriate level. This requirement ensures that renewables will not be excluded from the market, yet it allows the remaining 70 percent of the market to be open to all fuels, regardless of point of origin or renewable content.

As a result of concerns with the February 26, 1993 ROP, other options considered for simplifying that proposal, and other alternatives recommended by commenters, EPA has rejected them and is instead proposing today's renewable oxygenate program. (The reader is referred to Section II of the Preamble and Section I of the RIA for the reformulated gasoline final rulemaking for a description of the options and alternatives to the ROP considered.) Today's proposal is for a program to be applied in conjunction with the reformulated gasoline program and is designed to supplement the agreement for reformulated gasoline reached through regulatory negotiation. It does not alter the performance standards or other provisions for the reformulated gasoline outlined in the final rulemaking for reformulated gasoline. In addition, the program does not mandate the use of any particular oxygenates, but rather ensures some use of a certain subset of oxygenates.

The reader is referred to the technical support document contained in the docket for additional discussion of today's proposal. The reader may also refer to the 1993 NPRM (58 FR 11722, February 26, 1993), the Final Rule, the February 1993 Draft Regulatory Impact Analysis (DRIA), the Final Regulatory

Impact Analysis (RIA), and Public Dockets A-91-02 and A-92-12 for a thorough description of the goals and regulatory development of the reformulated program as it relates to today's action.

The remainder of this preamble is organized into the following sections:

- II. Renewable Oxygenate Proposal for Reformulated Gasoline
- III. Enforcement of the Renewable Oxygenate Requirement
- IV. Federal Preemption
- V. Environmental, Energy, and Economic Impacts
- VI. Public Participation
- VII. Compliance with Regulatory Flexibility Act
- VIII. Statutory Authority
- IX. Administrative Designation and Regulatory Analysis
- X. Compliance with the Paperwork Reduction Act

II. Renewable Oxygenate Proposal for Reformulated Gasoline

A. Description of the Proposed Program

Reformulated gasoline is required to contain 2.0 weight percent oxygen (Section 211(k)(2)(B) of the CAA). A number of oxygenates have or are currently being used in gasoline, such as methyl tertiary butyl ether (MTBE), ethanol, ethyl tertiary butyl ether (ETBE), tertiary butyl alcohol and tertiary amyl methyl ether (TAME). All of these oxygenates involve the use of alcohols in their production, and most involve methanol or ethanol. Based on a study conducted by the Department of Energy (DOE) (submitted to EPA as a comment on the ROP proposed on February 26, 1993) and EPA's own analysis, all oxygenates reduce the amount of crude oil needed to produce gasoline on essentially a gallon per gallon basis (i.e., each gallon of oxygenate used saves a gallon of crude oil). The lack of incremental supply of domestic crude means that essentially all of this crude oil savings applies to crude oil imports, with important energy, national security, and balance of trade impacts. Of all the oxygenates evaluated, ETBE shows the greatest crude oil savings at 13 percent per gallon of reformulated gasoline, since it must be used at the greatest volume percentage to meet the minimum oxygen content. However, the DOE study implicitly assumed that all oxygenates would be produced domestically. While the use of imported oxygenates would still reduce crude oil use and oil imports, it would merely substitute importing one form of energy for another. In fact, importing oxygenates worsen the current situation from an economic point of view. The

new imports would be high value products involving a significant amount of processing and labor in their production, but which can then be added directly to gasoline. The supplanted imported crude is a more basic energy source and requires processing and labor prior to its use. Therefore, only an increase in the use of domestic oxygenates would reduce both the amount of crude oil and oxygenate imports to the U.S.

This broader evaluation of basic energy requirements is important in interpreting the study's results regarding ethanol. The DOE study shows that crude oil use increases slightly with the use of renewable ethanol blends relative to domestic MTBE blends. However, as mentioned above, this ignores the importation of both methanol and MTBE. It also assumes that all of the butanes required to produce MTBE come from natural gas, while in practice as much as a third of the incremental MTBE is expected to use refinery (i.e., crude oil) based isobutylene. Consideration of this refinery-based isobutylene would eliminate any benefit of MTBE blends over ethanol blends. Also, the use of domestic, renewable ethanol would clearly reduce high value energy imports relative to imported methanol or MTBE.

A second aspect of the energy impact of the reformulated gasoline program is the total amount of fossil energy needed to produce reformulated gasoline with the various oxygenates. Total fossil energy is important because it tends to correlate with total carbon dioxide (CO₂) emissions and global warming impact. The DOE study shows that the ethers made from renewable alcohols (in this case corn based ethanol) can save nearly 15 percent of the total fossil energy per gallon of ether or about 1.6 percent of the total fossil energy needed per gallon of reformulated gasoline containing 2.0 weight percent oxygen, relative to using MTBE made from natural gas-based methanol (See Technical Support Document in the docket for derivation of the above figures).

The DOE study also shows that the blending of renewable ethanol also saves total fossil energy relative to natural gas based MTBE, if the increase in Reid vapor pressure (RVP) associated with ethanol need not be counteracted. However, the summer VOC emission performance standards require ethanol blends to generally have the same RVP as other blends, which requires the base gasoline to have a lower RVP than the base gasoline that can be blended with other oxygenates. The additional energy needed to lower the base gasoline RVP for ethanol blends is greater than the

energy saved by producing ethanol instead of MTBE. Thus, while generating energy savings in the non summer months, ethanol used in summer reformulated gasoline would not be expected to produce an energy savings.

Furthermore, the use of ethanol directly in summer reformulated gasoline increases VOC emissions in two ways not reflected in either the simple or complex models. First, the commingling of ethanol and non-ethanol blends in vehicle fuel tanks causes an increase in RVP over and above the simple averaging of the fuels' RVPs, leading to a further increase in evaporative VOC emissions. Second, ethanol increases fuel evaporation at 130°F, a temperature typically reached in the vehicle fuel tank during summer driving, more than other oxygenates. While some of the non-commingling ethers also increase fuel evaporation at 130°F, the increase caused by ethanol is much greater. Based on an analysis contained in the Regulatory Impact Analysis (RIA) for the final rule implementing the reformulated gasoline program, the commingling and distillation effects could increase total VOC emissions by 5 percent (relative to MTBE blends) when ethanol blends comprise 30 percent of the market. Thus, it would not be appropriate to encourage ethanol (or other commingling alcohol) blends through the renewable oxygenate program during the summer high ozone season when the VOC emission performance standards apply. However, outside of the ozone season, when VOC reductions are not required in reformulated gasoline for ozone control, EPA believes domestic ethanol blends would produce both imported and total fossil energy savings and potential CO₂ emission reductions.

Both EPA and DOE analyses also show that methanol produced from biomass, such as wood or organic waste products, would save fossil energy relative to natural gas-based methanol and would require essentially no use of crude oil. (See Technical Support Document). This savings would occur with the direct use of methanol or through the production of methanol-based ethers. Again, if not encouraged for use during the high ozone season, the use of methanol should not raise VOC emission performance concerns (methanol, like ethanol, produces commingling related RVP increases and increases in fuel evaporation at 130°F).

Based on the above analysis, EPA believes that the use of renewable oxygenates would reduce the need for imported crude oil or oxygenates in the

production of reformulated gasoline. It is also clear that the use of renewable oxygenates, or at least the alcohol portion of the oxygenates, would reduce the total fossil energy needed to produce reformulated gasoline, and could provide greenhouse gas emission reductions. EPA therefore proposes to require that 30 percent of the required 2.0 weight percent oxygen content of all reformulated gasoline be produced using renewable oxygenates. This level of renewables should increase the crude oil, greenhouse gas emission, and domestic economic benefits of the program. The majority of the oxygenate projected to be used to produce reformulated gasoline absent this program is expected to be domestic ethers made from domestic methanol. Significant amounts of ethanol are also expected to be used, but primarily in the winter when the VOC emission requirements do not apply. However, significant amounts of ethers are also expected to be imported or domestically produced from imported methanol. The proposed 30 percent renewable requirement should have minimal impact on the domestic methanol-based ethers, since these ethers should have the lowest cost structure of all the oxygenates not qualifying under this requirement. In other words, the domestic methanol based ethers are expected to compose the majority of the 70 percent of reformulated gasoline not affected by the program. The proposed program should have the greatest impact on imported ethers and imported methanol, since their capacity would not likely be needed to fulfill the 70 percent of the reformulated gasoline market not required to be renewable. Supplanting this imported oxygenate supply would be domestic renewable alcohols (in the winter) and ethers produced from these alcohols (year round). The great majority of the renewable alcohol is expected to be domestic ethanol, since it is the only alcohol produced from renewables in any great quantity. However, EPA expects that this program could generate significant interest in domestic renewable methanol processes and over time both alcohols could be produced in significant quantities. Thus, the combination of domestic nonrenewable ethers and domestic renewable ethers and alcohols should provide a combination of reduced high value energy imports (with the attendant improvement in the nation's balance of trade and employment status) and a potential reduction in CO₂ emissions, while maintaining substantial

competition between oxygenate sources to ensure competitive market pricing.

EPA is proposing to define renewable oxygenates to include all ethers if these ethers are produced from renewable ethanol or methanol. These ethers can be used anytime during the year. Renewable oxygenates are also proposed to include domestically produced renewable ethanol and methanol, but only if used during the non-high ozone season. Renewable ethanol and methanol are proposed to be methanol and ethanol produced from feed stocks other than petroleum, natural gas, coal, or peat. EPA is considering adopting a performance based requirement to ensure a net reduction in total fossil energy utilization of between 5 and 20% and net greenhouse gas emission reductions up to 20% associated with the production and use of renewable oxygenates. EPA requests comments on the above definitions, as well as on the desirability of a performance based definition and on the possible content of such a performance based definition.

EPA is aware that it is possible that some ethers produced from natural gas-based methanol may utilize less energy than certain other ethers produced from corn-based ethanol. For example, this could be true for TAME produced from refinery isooxymylenes versus ETBE produced from field butanes. However, this is due to the difference in the source of the isooxymylenes in the ether production process. Use of corn-based ethanol with refinery isooxymylenes should save energy relative to TAME using natural gas-based methanol, just as ETBE from field butanes will save energy relative to MTBE. Therefore, EPA is not proposing that ethers such as TAME from natural gas-based methanol with potentially low energy usage be included in the program.

EPA is also aware that the production of higher alcohols, such as propanols and butanols, from renewable feedstock may also produce energy and crude oil savings. However, we are not aware of technical analyses which detail the necessary and likely production processes, nor the resulting energy and crude oil balances. We will consider their inclusion if it can be demonstrated that they also provide similar energy and crude oil benefits.

EPA requests comments on the crude oil and energy savings associated with renewable oxygenates. EPA also requests comment on the adequacy of health effects testing to date for all of the potential renewable oxygenates.

B. Extent and Duration of the Program

EPA proposes that the renewable oxygenates requirement apply to 30

percent of the oxygen content of reformulated gasoline and apply year round. The 30 percent requirement would be measured on an oxygen-equivalent basis and would be applied to the minimum oxygen content of 2.0 weight percent oxygen. This means that on average all reformulated gasoline would be required to have at least a 0.60 weight percent oxygen content (2.0 times 30 percent) provided by renewable oxygenates. This requirement would be applied to all refiners or importers of reformulated gasoline and/or reformulated blend stock for oxygenate blending (RBOB) on average throughout the year, excluding oxygenate blenders. Refiners and importers of reformulated gasoline would also be able to generate and trade any excess use of renewable oxygenates to other producers desiring to use less renewable oxygenates. Therefore, all the current methods that provide flexibility to fuel producers in meeting the oxygen requirement for reformulated gasolines would be extended to meeting the renewable oxygenates requirement. In addition, for purposes of this proposed program averaging and trading would be expanded to allow such activities to occur year round and between various non-attainment areas, since the emissions performance of the various reformulated gasolines would be unaffected. EPA requests comment on the extension and expansion of the oxygen averaging and trading concepts contained in the reformulated gasoline program to this proposed renewable-oxygenate program.

EPA considered requiring greater and lesser levels of renewable oxygenates. EPA believes the 30 percent level produces a significant level of the benefits mentioned above while still ensuring feasibility and a diverse supply of oxygenates (i.e., low cost through competition). EPA requests comment, however, on the proposed 30 percent level and on the advantages and disadvantages of different levels.

Given the current absence of bio-methanol capacity, renewable oxygenates would likely be ethanol based. The 30 percent level would require an average production of roughly 630 million gallons of ethanol per year. This is about 80 percent of ethanol's current production capacity of roughly one billion gallons per year. As the vast majority of ethanol is currently sold outside of the reformulated gasoline areas, this would mean a significant near-term geographic shift of ethanol use (in the form of ETBE or ethanol). Additional ethanol capacity on the order of 0.3-1.0 billion gallons per year could likely be added in a couple

of years, as many current plans for additional capacity exist, but have been on hold pending resolution of the likely future demand for ethanol.

With respect to ether production, near-term supply problems could also arise from the substitution of corn-based ethanol for natural gas-based methanol. ETBE production utilizes both ethanol production capacity and ether production capacity. This reduces the amount of MTBE and ethanol which can be blended directly into gasoline, while only replacing roughly one-half of this reduction with ETBE. The increased methanol capacity cannot be easily used in gasoline, because of methanol's very high RVP blending value and its water sensitivity. However, the inclusion of ethanol in the program during the winter should eliminate the need for any reduction in total national oxygenate capacity during this time. Summer oxygenate demand is lower than winter demand due to the absence of demand from the oxyfuel program. Projected 1995 MTBE capacity was expected to be sufficient for summer reformulated gasoline. Therefore, ETBE capacity should also be sufficient. EPA requests comments on the technical feasibility of the 30 percent required level for the 1995 program and on whether the requirement should be phased in over time.

Also, EPA considered proposing different renewable oxygenate levels between gasolines meeting the Region 1 and 2 VOC performance standards. (Region 1 refers to those areas of the U.S. where temperatures are relative high during the summer and where 7.8 RVP gasoline is required to be sold (in ozone non-attainment areas) under EPA's Phase II RVP program. Region 2 refers to the rest of the nation, which is relatively cooler and where 9 RVP gasoline is required.) EPA's previous proposed ethanol incentive program encouraged up to 30 percent ethanol blends in Region 2, but only 20 percent in Region 1. EPA rejected such differential levels here, as the cost of producing Region 1 fuel with non-renewable oxygenates could be less than the cost of producing Region 2 fuel with renewable oxygenates, despite the latter's higher RVP. Differential renewable oxygenate levels could therefore encourage the over-production of Region 1 fuel and its sale in Region 2 as a way to reduce the amount of renewable oxygenates required. In Phase II of the reformulated gasoline program, the RVP distinction between Regions 1 and 2 essentially disappears, so the incentive to overproduce Region 1 fuel would be even greater. EPA requests comments on the absence of a

distinction in the required levels for Regions 1 and 2.

EPA considered nominal oxygen levels other than 2.0 weight percent oxygen when applying the 30 percent criteria. EPA's previous ethanol incentive proposal used 2.7 weight percent oxygen, based primarily on the fact that most ethanol blends were produced at a higher level of 3.5 weight percent oxygen, but the simple model generally restricted oxygen levels to 2.7 weight percent. Ethers currently may not lawfully be used at 3.5 weight percent oxygen and the average requirement for reformulated gasoline is only 2.0 weight percent oxygen. Therefore, use of the 2.0 weight percent oxygen level would result in the use of renewable oxygenates for not only 30 percent of the oxygen, but also in roughly 30 percent of the volume of reformulated gasoline, at least for summer gasoline when commingling alcohols are not allowed. Comments are requested on this table.

EPA also considered and rejected limiting the renewable oxygenate requirement to the summer, or high ozone season. EPA's previously proposed ethanol incentive program applied only during this time, in part because we projected that a significant fraction of reformulated gasoline would likely contain ethanol in the winter even without an incentive. However, EPA believes that the benefits discussed earlier occur regardless of the time of year the renewable oxygenate is used and assurance of its use, even in the winter, seems warranted. Therefore, the requirement is being proposed as applying year round. EPA requests comment on this aspect of the program.

One consequence of the year round requirement is that renewable oxygenates could be used preferentially during one season or the other. In particular, since ethanol would qualify as a renewable oxygenate during the winter and is generally cheaper than ETBE (particularly without the need to adjust RVP), ethanol could be used in more than 30 percent of winter reformulated gasoline and renewable ethers used in much less than 30 percent of summer gasoline. By allowing such year round averaging the same overall benefits to the nation are provided while at the same time minimizing the cost and maximizing the flexibility for refiners to comply with the requirements. EPA requests comment on the desirability of these outcomes, particularly on how it might affect the workings of the oxygenate markets.

The final feasibility issue relates to the initial implementation of the

program. The reformulated gasoline program will be in effect on January 1, 1995. Even with a very aggressive rulemaking schedule, EPA does not foresee being able to promulgate this renewable oxygenates program earlier than June of 1994. Some time is necessary for ethanol producers to adjust their production schedules, for ether suppliers to set up contracts for the purchase of renewable alcohols and for fuel producers to set up supplies of renewable ethers. Reformulated gasoline producers may also have to adjust their gasoline production plans for a different oxygenate, though use of ETBE may simplify those plans due to its low RVP and higher volume per unit oxygen. Regarding ether producers, EPA believes that at least half of current MTBE capacity is capable of producing ETBE with no addition of equipment. If this is true, then conversion of current MTBE capacity to ETBE production should not be a limitation on implementation. Refiners and importers of reformulated gasoline also need to begin distribution of their fuel prior to January 1, 1995 in order to have turned over the distribution system in time to meet the 1995 requirements. EPA requests comment on the amount of time needed for the various preparatory actions described above to occur in order to avoid high transition costs and possible disruption in supply and on the earliest possible date this program could be implemented. EPA also requests comment on the advantages and disadvantages of a staged implementation, where the amount of required renewable oxygenate would be increased in increments over identifiable time periods (i.e., gradually increasing levels for the period prior to the 1995 high ozone season, and thereafter).

III. Enforcement of the Renewable Oxygenate Requirement

The proposed enforcement scheme for the renewable oxygenate requirements would be similar to the enforcement scheme used for the reformulated gasoline requirements. The proposed renewable oxygenate average standard, 0.60 wt% oxygen from renewable oxygenate, would apply to importers, and to refiners separately for each refinery, and would have a calendar

¹ The remainder of this preamble section refers to refiners and importers collectively as refiners, but all references to refiners apply equally to importers unless otherwise noted. Note that downstream oxygenate blenders would not be subject to the renewable oxygenate requirements.

year averaging period.² No per-gallon standard would be included, however. Renewable oxygen credits could be created by any refiner who uses more renewable oxygenate than is required, and renewable oxygen credits could be used by any refiner to achieve compliance with this standard. The conditions and requirements for credit creation, transfer and use that would apply to renewable oxygen credits are the same as the conditions and requirements that apply under reformulated gasoline for benzene and oxygen credits.

Under the proposal, the definition for renewable oxygenate is different in the case of oxygenate used with reformulated gasoline and RBOB that is VOC-controlled versus that used with reformulated gasoline and RBOB that is not VOC-controlled. In the case of VOC-controlled gasoline and RBOB, the oxygenate would have to be an ether, while in the case of non-VOC-controlled gasoline and RBOB the oxygenate could be either an ether, or ethanol or methanol. The reasons for these distinctions are discussed in Section II of this preamble. In either case, the proposal would require that the ether alcohol be derived from a source other than petroleum, coal, natural gas, or peat.

Mechanisms are being proposed for establishing the renewable nature of oxygenate. These proposed mechanisms are that the refiner would have to purchase the methanol or ethanol from its producer, and would have to retain documents obtained from that person that certify the renewable source of the methanol or ethanol feed-stock. In the case of any methanol- or ethanol-based ether claimed to be renewable oxygenate, the refiner would have to obtain documents that state the name and address of the ether production facility, and the specific nature and source of the feedstock used to produce the methanol or ethanol. EPA requests comment on this proposal and the mechanisms required for establishing the renewable source of oxygenate.

EPA is considering a petition process whereby EPA could expand the definition of renewable oxygenate to include alcohols other than ethanol and methanol, and ethers other than those produced using ethanol and methanol. Possible criteria that could be used in

such a petition process include factors such as the renewable nature of the alcohol or ether, the amount of energy used in producing the alcohol or ether, and any air quality implications of using the alcohol or ether with gasoline. EPA is requesting comment on such a petition process generally, and in particular on any criteria that would be appropriate for use in guiding EPA's decisions on a petition.

Under the proposal, refiners would be required to include in renewable oxygenate compliance calculations all reformulated gasoline and RBOB produced during the averaging period. RBOB would be included in the compliance calculations even though refiners are not required to account for oxygen in the case of RBOB under the reformulated gasoline program.

EPA is proposing that refiners be the party responsible for meeting the renewable oxygenate standard for RBOB for several reasons. Refiners control the type and amounts of oxygenate that may be added to RBOB. As a result, if oxygenate blenders were required to meet the renewable oxygenate standard they would be required not only to obtain an adequate supply of RBOB suitable for blending with renewable oxygenate, but also must obtain the particular renewable oxygenate included by the refiner in the RBOB product transfer documents. EPA believes that in many situations adequate supplies of these specific forms of RBOB and/or oxygenate would not be available to downstream oxygenate blenders, and that in consequence it often would not be feasible for downstream oxygenate blenders to achieve the renewable oxygenate standard. This availability concern is due in part to the fact that downstream oxygenate blenders in many cases are small entities, who may lack the market force necessary to compel adequate supplies of the appropriate RBOB's and oxygenates at the appropriate time.

Trading in renewable oxygen credits potentially could aid oxygenate blenders in meeting the renewable oxygenate standard. However, this would require a multitude of small entities to trade renewable oxygen credits and with significant transaction costs. EPA does not believe there are any significant benefits that result from applying the renewable oxygenate standard to downstream oxygenate blenders that would justify these additional costs.

EPA's proposal would allow refiners to include in renewable oxygenate compliance calculations the renewable oxygenate that is added by downstream

oxygenate blenders, provided the refiner carries out an appropriate quality assurance program over the downstream oxygenate blender. Absent such a program, the refiner would have to assume that a non-renewable oxygenate was blended downstream. Even where a refiner is able to include renewable oxygenate blended downstream, however, the refiner could not use this oxygen to meet the reformulated gasoline oxygen standard applicable to the refinery, under § 80.41, because under the existing reformulated gasoline requirements the reformulated gasoline oxygen standard must be met by the downstream oxygenate blender for RBOB used by the oxygenate blender.

The proposed conditions restricting when refiners could include in compliance calculations the renewable oxygenate added downstream are similar to the restrictions contained in the downstream oxygenate provisions under the reformulated gasoline program. The proposed conditions deal with refiner control and oversight over the downstream blending operation, and are intended to ensure that when refiners claim credit for downstream blending of renewable oxygenate that the oxygenate added is renewable, that the renewable oxygenate is added to the RBOB produced by the refiner, and that the volume of renewable oxygenate claimed is correct.

EPA requests comments on its proposal to apply the renewable oxygenate standard to refiners and importers of RBOB; and to not apply this standard to downstream oxygenate blenders.

The renewable oxygenate requirements would apply to reformulated gasoline sold in the two covered areas in the State of California, Los Angeles and San Diego. This raises enforcement-related complications because in most cases refiners who produce gasoline for use in California, beginning in March, 1996 are exempt from most reformulated gasoline enforcement mechanisms. See § 80.81. The California exemption is based on the fact that beginning in March 1996, all gasoline used in California will be subject to the California Phase II reformulated gasoline State standards ("California gasoline"), which EPA has concluded are at least as stringent as the federal Phase I reformulated gasoline standards. As a result, refiners who produce California gasoline are exempt from most federal reformulated gasoline enforcement requirements, including designating gasoline as either reformulated or conventional gasoline.

² Reformulated gasoline produced during 1994 for use in 1995 will be averaged with gasoline produced in 1995 under the reformulated gasoline regulations. This approach to averaging of gasoline produced during 1994 would be followed for renewable oxygenate averaging, creating an averaging period that is longer than one year for 1994-1995 only.

record keeping and reporting. Refiners of California gasoline are not exempt, however, from meeting the federal reformulated gasoline standards. The exemption for California gasoline is described in detail in the reformulated gasoline final rule preamble.

As a result of this exemption in the reformulated gasoline rule, refiners who produce California gasoline will not be required to follow procedures necessary to establish the volume of gasoline that is sold into the two federal reformulated gasoline covered areas located in California. It is the volume of gasoline used in these two covered areas that is subject to the renewable oxygenate requirement.

EPA proposes to resolve this difficulty by requiring refiners of California gasoline to meet the renewable oxygenate standard for a specified percentage of their volume of California gasoline. This specified percentage would be derived from the historic volumes of gasoline used in Los Angeles and San Diego (which EPA believes to be 7 billion gallons per year), as compared to the historic volume of gasoline used in other portions of the State of California (which EPA believes to be 8 billion gallons per year). Using this approach, each refiner who produces California gasoline would be required to meet the renewable oxygenate standard for 54% of their volume of California gasoline.

An additional enforcement complication for California gasoline relates to the different definitions of renewable oxygenate that apply to reformulated gasoline that is VOC-controlled versus the gasoline not designated as VOC-controlled. This complication arises because, under the exemption for California gasoline, refiners are exempt from the designation requirements of § 80.65(d). It is this designation of reformulated gasoline that is proposed as the mechanism for distinguishing the gasoline for which renewable others only may be used (VOC-controlled gasoline) versus the gasoline for which renewable ethanol, plus ethanol and methanol may be used (non-VOC-controlled gasoline). This designation approach is not possible in the case of California gasoline unless the reformulated gasoline designation requirements are imposed on refiners of California gasoline.

EPA request comment on the appropriate approach for resolving this dilemma.

In addition, refiners who produce California gasoline would be required to keep records and submit reports necessary to establish compliance with the renewable oxygenate standard.

EPA is seeking comment on this proposed approach for applying the renewable oxygenate requirement to California gasoline, including the assumption about the percentage of California gasoline sold in the federal reformulated gasoline covered areas, and the record keeping and reporting that is necessary for refiners of California gasoline to establish compliance with the renewable oxygenate standard.

The renewable oxygenate proposal would require several types of record keeping beyond that otherwise required for reformulated gasoline: Records associated with establishing the source of alcohol or other claimed to be renewable oxygenate, records associated with California gasoline, and records associated with use of oxygenate blended by downstream oxygenate blenders.

Refiners also would be required to submit reports that are not included in the reformulated gasoline program, dealing with the renewable oxygenate content of reformulated gasoline, the compliance calculations for the renewable oxygenate standard, and the transfer of renewable oxygen credits.

EPA is proposing strict provisions dealing with the renewable oxygenate requirements, that would be carried out in conjunction with the strict requirements for reformulated gasoline. Compliance by refiners with the renewable oxygenate requirements would be verified through these strict requirements.

Provisions contained in the reformulated gasoline regulations not discussed in this preamble would apply to the renewable oxygenate standard in the same manner they apply to other reformulated gasoline standards. These include: test cells, the definitions of parties; the data requirements apply; the designation requirements; testing requirements; including independent sampling and testing; and contracts, prohibitions, liabilities, and defenses.

There are no gasoline survey requirements proposed for renewable oxygenate, because there is no air quality implication if any covered area receives greater than or less than the average amount of reformulated gasoline produced using renewable oxygenate.

IV. Federal Preemption

This proposal is based on section 211(j) of the CAA. This provision for

the prohibition of state and local controls under section 211(c)(4) therefore do not apply.

V. Environmental, Energy, and Economic Impacts

The environmental impacts of this program are beneficial. Since the proposed renewable oxygenate requirement would not modify any of the emission performance standards applicable to reformulated gasoline, the only environmental impacts would be those not covered by the simple or complex models used to determine compliance. There are three such emission impacts.

The first is the current potential for an increase in the RVP of the gasoline pool due to fuel commingling in vehicle fuel tanks and the second is the effect of mid-range fuel distillation (e.g., the fraction of fuel evaporated at 130°F) on non-exhaust emissions.

Both of these effects which concern the formation of ozone were addressed in the Regulatory Impact Analysis for the Final Rule for the reformulated gasoline program. Regarding the commingling RVP effect, ethanol blends are the only fuels which cause this increase. (Methanol blends would also produce such an RVP increase, but they are not expected to be used in reformulated gasoline during the high ozone season.) Based on the analysis in the RIA, the commingling resulting from a 30% ethanol blend market share would increase the effective average RVP of the gasoline pool and increase total VOC emissions (including both exhaust and non-exhaust VOC emissions) by 5% percent. The use of ethanol blends in the summer is expected to be very small under this proposal, since ethanol would not qualify as a renewable oxygenate, but ethanol use would be strongly encouraged as an ETHE feedstock. However, ethanol use without this proposal was expected to be somewhat less than 20 percent of the reformulated gasoline sold during the high ozone season absent an incentive, the actual reduction in VOC emissions due to this proposal would be somewhat less than 5 percent.

Regarding mid-range distillation, ETHE reduces this effect relative to ethanol blends and even relative to MTHE. For example, ETHE blends qualifying under the Complex Model in the year 2000 are projected to reduce total VOC emissions by 2 percent relative to MTHE blends. As ETHE is expected to be the dominant renewable oxygenate used in the near term during the high ozone season, this reduction

¹ Refiners of California gasoline are required to keep records required by California State law for five years, however.

ould translate directly into in-use OC emissions from gasoline fueled engines in reformulated gasoline areas. This represents 14,000 annualized tons of VOC control in these areas.

The third emission impact relates to greenhouse gas emissions, and in particular, CO₂ emissions. Because more fossil energy is generally used in the production of methanol from natural gas than is used in producing ethanol from corn, net CO₂ emission reductions are expected under the program proposed here. However, since there are no assurances that the most efficient processes will be used to produce the oxygenates required through this proposal, comments are requested on the desirability of adding CO₂ emission reduction criteria for oxygenates to qualify as "renewable". In particular, comments are requested on the proposed option of requiring that the production of renewable oxygenates demonstrate up to a 20% reduction in CO₂ emissions as compared to reformulated gasoline from crude oil and nonrenewable oxygenates. Since CO₂ emissions are not the only emission from the production of renewable oxygenates (CFCs, NO_x, N₂O, Methane, etc.) that may affect global warming, EPA also requests comment specifically on the magnitude of these emissions from the production of current renewable oxygenates, and how best to incorporate other such emissions into such a CO₂ reduction criteria.

The primary economic impacts of this proposal include the crude oil savings, the added cost of producing and using the renewable oxygenates, the reductions in revenue to the U.S. Highway Trust Fund, and the impacts on the various oxygenate and fuel industries affected. It was already mentioned above that the use of ETBE in lieu of MTBE should reduce crude oil consumption by 1.8% per gallon of reformulated gasoline. Assuming half of all crude oil is used to produce gasoline, 32.1 percent of all gasoline will have to be reformulated and that 45.8 percent of this will be sold during the high ozone season, the summer portion of this program would reduce total U.S. consumption of crude oil by 0.13 percent over and above the savings already occurring through the reformulated gasoline program, or roughly 9000 barrels per day. Since the U.S. imports roughly half of its crude oil and all of the savings can be expected to apply to imports, total imports of crude oil should decrease by 0.28 percent. In the winter, ethanol use will likely predominate and produce slightly

due to its higher oxygen

and MTBE. While the impact of this program is expected to be positive, EPA lacks sufficient information to project the size of these imports absent this program. Therefore, EPA requests comment on the energy impacts of this proposed program during the winter months.

In the Regulatory Impact Analysis to the final rule for the reformulated gasoline program, EPA estimated that the production and use of ETBE in reformulated gasoline would cost \$0.073 per gallon more than that for MTBE. Reformulated gasoline at 2.1 weight percent oxygen must contain 12.8 volume percent ETBE. Therefore, ETBE containing reformulated gasolines are projected to cost \$0.0093 per gallon more than those with MTBE. This figure includes the differences in octane, RVP and oxygen content of the two ethers. Extending this cost to 30 percent of all reformulated gasoline used during the high ozone season, the total annual cost to the nation would be \$48 million.

During the winter, EPA expects much of the renewable oxygenate will be ethanol. When its octane and diluting properties are taken into account, and its high RVP need not be counteracted, ethanol is much cheaper than MTBE or ETBE. At the same time, there tend to be additional costs to distributing ethanol and its gasoline blendstock due to the water soluble nature of ethanol. While these may balance any savings in production costs, EPA does not project any net additional costs in the winter due to this proposed program.

Regarding lost Highway Trust Fund receipts, EPA projects that 630 million gallons of ethanol would be used per year under this program. If ethanol were the only renewable oxygenate used. At a tax credit of \$0.54 per gallon, this amounts to \$340 million of lost highway receipts per year.

Finally, there could be economic impacts on a number of industries and economic sectors due to this program. The revenues and net incomes of both corn farmers and ethanol producers should rise significantly, due to higher corn and ethanol demand and prices, respectively. Expenditures for government farm price supports could decrease. Revenues and net incomes of domestic methanol producers and overseas producers of both methanol and MTBE would likely decrease due to reduced demand and prices. Oil refiners could experience transitional costs due to an additional requirement and would likely face higher oxygenate costs. However, their crude processing costs would likely decrease due to ETBE's greater volume (and diluting properties) of the oil industry is

able to pass on higher oxygenate costs to the consumer, the net income of the oil industry would not be affected.

VI. Public Participation

EPA invites comment on all aspects of today's action. EPA has specifically requested comments on a number of specific areas throughout the previous discussion. A list of these and other specific areas for comment follows:

- EPA's statutory authority.
 - The extent to which renewable oxygenates will be used in reformulated gasoline absent today's proposal.
 - The economic, energy, and crude oil import benefits to the nation resulting from today's proposal.
 - Any other approaches which could be used to achieve the same objective.
 - Likelihood that the renewable oxygenate requirement will be met with domestically produced oxygenates absent a requirement to this effect and whether such a requirement would be desirable and legally permissible and any other suggested approaches to ensure the domestic benefits of this program.
 - The climate change aspects of the proposal.
 - The definition of renewable oxygenates.
 - The need for performance based standards for fossil energy or greenhouse gas emissions.
 - Health effects data regarding renewable oxygenates that may potentially be used as a result of the program.
 - The appropriate level for the renewable oxygenate requirement, its feasibility, lead-time requirements, the potential need for a phase-in period, and any other supply-related issues.
 - The need and justification for a year-round program in lieu of a summer-only program.
 - The allowance for year-round averaging of renewable oxygenate content.
 - The applicability of the program only to producers of reformulated gasoline rather than including downstream blenders.
 - The enforcement related provisions.
 - Its impact on the already promulgated reformulated gasoline program.
 - A petition process to include additional renewable oxygenates.
- A public hearing regarding today's proposal will be held on January 14, 1994 beginning at 9 a.m. in the Washington DC area. See ADDRESSES. The comment period for today's proposal will close on February 14, 1993.

VII. Compliance With Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) of 1980 (Pub. L. 96-354), requires Federal regulatory agencies to consider the impact of rulemaking on "small entities." If a rulemaking will have a significant impact on small entities, agencies must consider regulatory alternatives that minimize economic impact.

The Regulatory Flexibility Act (RFA) of 1980 requires Federal agencies to examine the effects of the renewable oxygenate regulation and to identify significant adverse impacts of Federal regulations on a substantial number of small entities. Because the RFA does not provide concrete definitions of "small entity," "significant impact," or "substantial number," EPA has established guidelines setting the standards to be used in evaluating impacts on small businesses.⁴ For purposes of the renewable oxygenate requirement for reformulated gasoline, a small entity is any business which is independently owned and operated and not dominant in its field as defined by SBA regulations under section 3 of the Small Business Act.

The Agency believes that the renewable oxygenate program being proposed today is unlikely to have a significant economic impact on a substantial number of small entities. The renewable oxygenate program will secure a market in the reformulated gasoline program for oxygenate producers while simultaneously allowing refiners flexibility in fulfilling the statutory oxygenate requirement. In addition EPA decided against applying the requirement to downstream oxygenate blenders, many of which are small entities. As discussed above, this would have required each blender to maintain at least two sources of oxygenate, one renewable and one not. Such an approach would prove to be either uneconomic or involve significant transaction costs related to averaging and trading.

Administrator certifies that this proposal will not have a significant impact on small entities.

However, EPA invites comment on the question of significant impacts on small entities. EPA also requests all

relevant data which justify any conclusions submitted.

VIII. Statutory Authority

Section 211(k)(1) provides that EPA is to promulgate regulations "establishing requirements for reformulated gasoline" in specified ozone nonattainment areas (the first sentence of Section 211(k)(1)), and that such regulations must require the "greatest reductions achievable through the reformulation of gasoline, taking into consideration" various factors such as cost, available technology, health and environmental impacts, and energy requirements (the second sentence of Section 211(k)(1)). EPA interprets the first sentence of Section 211(k)(1) as broadly providing EPA with the authority to establish any and all reasonable requirements that are designed to achieve the results stated in the second sentence. As discussed previously, EPA believes that the reformulated gasoline emission performance standards combined with a requirement that refiners and importers use a specified percentage of renewable oxygenates tends to maximize achievement of the objectives of Section 211(k)(1)—it should result in the greatest reductions achievable while tending to optimize the combination of energy requirements, costs, and health and environmental impacts.

In effect, EPA believes that the second sentence of Section 211(k)(1) does not limit it to promulgation of emission reduction standards. It requires that EPA's regulations ensure a certain result, and provides EPA with the discretion to adopt appropriate requirements designed to achieve that result.

In addition, the first sentence of Section 211(k)(1) would appear to grant EPA broad general authority to promulgate reasonable requirements for reformulated gasoline, independent of and in addition to the obligation to require the greatest achievable VOC and toxics emissions reductions under the second sentence of Section 211(k)(1). For the reasons described earlier, EPA believes it appropriate to exercise this general authority by proposing to require the use of renewable oxygenates.

This interpretation of Section 211(k)(1) is consistent with the oxygen content requirements of Section 211(k)(2). EPA does not believe compliance with the renewable oxygenates provisions will interfere with the ability of refiners to comply with the oxygen content requirements of Section 211(k)(2). While EPA believes that Section 211(k)(2) would not appear to provide independent authority for the renewable oxygenates requirement, EPA

is instead relying primarily on the general grant of authority in Section 211(k)(1). While the legislative history of Section 211(k)(2) indicates that in general Congress believed several oxygenates could be used to meet its requirements,⁵ this does not indicate an intention to limit EPA's otherwise broad grant of authority under Section 211(k)(1). EPA also invites comment on whether Section 211(k)(2) would provide an independent source of authority for a renewable oxygenate requirement.

Finally, EPA believes that Section 211(k)(4) does not preclude the renewable oxygenate provisions proposed herein. Section 211(k)(4) states that the Administrator "shall certify a fuel formulation or slate of fuel formulations as complying with this subsection if such fuel or fuels—(i) comply with the requirements of paragraph (2), and (ii) achieve equivalent or greater reductions . . . than are achieved by a reformulated gasoline meeting the applicable requirements of paragraph (1)." This could be interpreted as requiring certification of a fuel that met the oxygen and other requirements of paragraph (2) and the emissions requirements of paragraph (2) even if it did not comply with the proposed renewable oxygenate requirement. Section 211(k)(1), however, authorizes EPA to establish requirements above and beyond those required under paragraph (2) and (3), and Section 211(k)(1) and (4) must be read together to provide a meaningful interpretation to both provisions. EPA believes that a reasonable interpretation requires certification of a fuel as reformulated as long as it complies with the requirements of paragraphs (2) and (3), as well as any additional requirements established under paragraph (1). Since the renewable oxygenate provision is an additional requirement established under Section 211(k)(1), certification is not required under Section 211(k)(4)(B) unless a fuel or slate of fuels complies with the requirement.

IX. Administrative Designation and Regulatory Analysis

Pursuant to Executive Order 12866, (58 FR 51733 (October 4, 1993)) the Agency must determine whether the regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant"

⁴ U.S. Environmental Protection Agency, Memorandum to Assistant Administrators, "Compliance with the Regulatory Flexibility Act," EPA Office of Policy, Planning, and Evaluation, 1984. In addition, U.S. Environmental Protection Agency, Memorandum to Assistant Administrators, "Agency's Revised Guidelines for Implementing the Regulatory Flexibility Act," Office of Policy, Planning, and Evaluation, 1982.

⁵ See, e.g., 136 Cong. Rec. 3 10937 (October 27, 1990) (Sen Durenberger); 136 Cong. Rec. 14 2852 (May 23, 1990) (Rep. Richardson, stating among other things the energy and other benefits expected from the use of domestic renewable oxygenates).

regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, the Administrator has determined that this proposed rule is a "significant regulatory action" based on the above criteria. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations will appear in the Final Rule and be documented in the public record: EPA Air Docket A-92-12.

X. Compliance with the Paperwork Reduction Act

The information collection requirements in this proposed rule will be submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. A separate Federal Register notice will be published requesting comments on the information collection requirements. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

List of Subjects in 40 CFR Part 80

Environmental protection, Air pollution control, Fuel additives, Gasoline, Motor vehicle pollution, Penalties, Reporting and recordkeeping requirements.

Dated: December 15, 1993.

Carel M. Brewer,
Administrator.

For the reasons set forth in the preamble, part 80 of title 40 of the Code of Federal Regulations is proposed to be amended as follows:

PART 80—REGULATIONS OF FUELS AND FUEL ADDITIVES

1. The authority citation for part 80 continues to read as follows:

Authority: Sections 114, 211 and 301(a) of the Clean Air Act as amended, 42 U.S.C. 7414, 7545 and 7601(a).

2. EPA proposes that § 80.83 be added to read as follows:

§ 80.83 Renewable oxygenate requirements.

(a) *Definition of renewable oxygenate.*
(1) For purposes of subparts D and F of this part 80, a renewable oxygenate is defined:

(i) In the case of oxygenate added to reformulated gasoline or RBOB designated as VOC-controlled, as any ether that is produced using produced ethanol or methanol that is derived from a source other than petroleum, coal, natural gas, or peat; and

(ii) In the case of oxygenate added to reformulated gasoline or RBOB not designated as VOC-controlled, as any produced ether, or produced ethanol or methanol, that is derived from a source other than petroleum, coal, natural gas, or peat.

(2) *Reserved.*

(b) *Renewable oxygenate standard.*

(1) During each calendar year the reformulated gasoline and RBOB that is produced by any refiner at each refinery, or is imported by any importer, shall contain a volume of renewable oxygenate such that the reformulated gasoline and RBOB, on average, has an oxygen content from such renewable oxygenate that is equal to or greater than 0.60 wt%.

(2)(i) The oxygenate used to meet the standard under paragraph (b)(1) of this section may also be used to meet any oxygen standard under § 80.41, except that

(ii) The renewable oxygenate added by a downstream oxygenate blender shall not be used by any refiner or importer to meet the oxygen standard under § 80.41, except through the transfer of oxygen credits.

(c) *Downstream oxygenate blending using renewable oxygenate.* In the case of any refiner that produces RBOB, or any importer that imports RBOB, the oxygenate that is blended with the RBOB may not be included with the refiner's or importer's compliance calculations under paragraph (d) of this section unless:

(1) The oxygenate meets the applicable renewable oxygenate definition under paragraph (a) of this section; and

(2) The refiner or importer meets the downstream oxygenate blending oversight requirements specified in §§ 80.89(a) (3) through (7).

(d) *Compliance calculation.*

(1) Any refiner for each of its refineries, and any importer shall, for

each calendar year averaging period, determine compliance with the renewable oxygenate standard by calculating:

(i) The renewable oxygen compliance total using the following formula:

$$CT_{ro} = \left(\sum_{i=1}^n V_i \right) \cdot 0.60$$

where

CT_{ro} = the compliance total for renewable oxygen

V_i = the volume of gasoline or RBOB

batch i

n = the number of batches of gasoline and RBOB produced or imported during the calendar year averaging period

and

(ii) The renewable oxygen actual total using the following formula:

$$AT_{ro} = \sum_{i=1}^n (V_i \cdot RO_i)$$

where

AT_{ro} = the actual total for renewable oxygen

V_i = the volume of gasoline or RBOB

batch i

RO_i = the oxygen content, in wt%, in the form of renewable oxygenates of

gasoline or RBOB batch i

n = the number of batches of gasoline or RBOB produced or imported during the averaging period

(iii) Compare the renewable oxygen actual total with the renewable oxygen compliance total.

(2)(i) The actual total must be equal to or greater than the compliance total to achieve compliance, subject to the credit transfer provisions of paragraph (a) of this section;

(ii) If the renewable oxygen actual total is less than the renewable oxygen compliance total, renewable oxygen credits must be obtained from another refiner or importer in order to achieve compliance;

(iii) The total number of renewable oxygen credits required to achieve compliance is calculated by subtracting the renewable oxygen actual total from the renewable oxygen compliance total; and

(iv) If the renewable oxygen actual total is greater than the renewable oxygen compliance total, renewable oxygen credits are generated.

(v) The total number of renewable oxygen credits which may be traded to another refiner for a refinery, or to another importer, is calculated by subtracting the renewable oxygen compliance total from the renewable oxygen actual total.

(a) *Credit transfer.* Compliance with the renewable oxygenate standard

specified in paragraph (b)(1) of this section may be achieved through the transfer of renewable oxygen credits, provided that the credits meet the criteria specified in § 80.67(b)(1) (i) through (iv) and § 80.67(h) (2) and (3).

(f) *Use of methanol or ethanol as a renewable oxygenate.* Methanol or ethanol, or an ether produced using methanol or ethanol, may be treated as renewable oxygenate only if:

(1) The methanol or ethanol meets the renewable oxygenate definition under paragraph (a) of this section; and

(2) The refiner or importer is able to establish in the form of documentation obtained from the person who produced the methanol or ethanol, that the methanol or ethanol was produced from a source other than petroleum, coal, natural gasoline, or peat.

(g) *Record keeping.* Any refiner or importer shall for a period of five years maintain the record specified in this paragraph (g) in a manner consistent with the requirements under § 80.74, and deliver such records to the Administrator upon request. The records shall contain the following information:

(1) The use of methanol or ethanol as a renewable oxygenate documents required under paragraph (f) of this section; and

(2) The volume, type, purity, and sources of any renewable oxygenate used.

(h) *Reporting requirements.*

(1) Any refiner for each refinery, or any importer, shall for each batch of reformulated gasoline and RBOB include in the quarterly reports for reformulated gasoline required by § 80.73(a) the weight percent oxygenate in the form of renewable oxygenate contained in the gasoline, or RBOB subsequent to oxygenate blending (if allowed under paragraph (c) of this section).

(2) Any refiner for each refinery, or any importer, shall submit to the Administrator, with the fourth quarterly report required by § 80.73(a), a report for all reformulated gasoline and RBOB that was produced or imported during the previous calendar year averaging period, that includes the following information:

(i) The total volume of reformulated gasoline and RBOB;

(ii) The compliance total for renewable oxygen;

(iii) The actual total for renewable oxygen;

(iv) The number of renewable oxygen credits generated as a result of actual total renewable oxygen being greater than compliance total renewable oxygen;

(v) The number of renewable oxygen credits required as a result of actual total renewable oxygen being less than compliance total renewable oxygen;

(vi) The number of renewable oxygen credits transferred to another refinery or importer;

(vii) The number of renewable oxygen credits obtained from another refinery or importer; and

(viii) For any renewable oxygen credits that are transferred from or to another refinery or importer, for any such transfer:

(A) The names, EPA-assigned registration numbers and facility identification numbers of the transferor and transferee of the credits;

(B) The number of renewable oxygen credits that were transferred; and

(C) The date of transaction.

(i) *Renewable oxygenate requirements for reformulated gasoline used in the State of California.* Notwithstanding the provisions contained in § 80.81, any refiner or importer of California gasoline, as defined in § 80.81, shall:

(1) Meet the renewable oxygenate standard specified in paragraph (a) of this section, for a portion of the volume of the California gasoline produced by the refiner or imported by the importer, equal to the total volume produced or imported multiplied times 0.54; and

(2) With regard to any renewable oxygenate content of any California gasoline produced or imported, meet:

(i) The determination of properties requirements of § 80.85(e);

(ii) The independent analysis requirement of § 80.85(f);

(iii) The record keeping requirements of § 80.74; and

(iv) The reporting requirements of § 80.75.

(FR Doc. 93-31361 Filed 12-23-93; 8:45 am)
BILLING CODE 6840-08-P

40 CFR Part 258

[FRL-4824-3]

RIN 2050-AD04

Financial Assurance Mechanisms for Local Government Owners and Operators of Municipal Solid Waste Landfill Facilities

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) proposes to amend the financial assurance provisions of the Municipal Solid Waste Landfill Criteria, which were promulgated on October 9, 1991, under subtitle D of the Resource

Conservation and Recovery Act. Those regulations require owners and operators of municipal solid waste landfills (MSWLFs) to demonstrate financial assurance for the costs of closure, post-closure care, and corrective action for known releases associated with their facilities. The regulations currently specify several mechanisms that owners and operators may use to demonstrate financial assurance for those costs. This proposed rule would increase the flexibility available to owners and operators by adding two mechanisms to those currently available: A financial test for use by local government owners and operators, and a guarantee by local governments that wish to guarantee the costs for an owner or operator. This proposed rule also would increase the flexibility available to owners and operators by allowing them to use certain combinations of allowable mechanisms to demonstrate financial assurance.

Consistent with the other mechanisms allowed under the current landfill criteria, the financial test and guarantee proposed in this rule are designed to be self-implementing, with greater flexibility allowed in States that have received approval for their subtitle D MSWLF programs.

DATES: Comments on this proposed rule must be submitted on or before February 23, 1994.

ADDRESSES: Written comments on this proposal should be addressed to the docket clerk at the following address: Environmental Protection Agency, RCRA Docket (OS-305), 401 M Street SW., Washington, DC 20460.

Commenters should send one original and two copies and place the docket number (F-93-LGFP-FFFF) on the comments. The docket is open from 9 a.m. to 4 p.m., Monday through Friday, except for Federal holidays. Docket materials may be reviewed by appointment by calling (202) 260-9327. Copies of docket materials may be made at no cost, with a maximum of 100 pages of material from any one regulatory docket. Additional copies are \$0.15 per page.

FOR FURTHER INFORMATION CONTACT:

RCRA Hotline at 1-800-424-9346 (in Washington, DC call (703) 920-9810).

For other information contact Ed Coe at (703) 308-6624, Office of Solid Waste, U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460.

ATTACHMENT B

DOCKET A-93-49

CATEGORY II-F

Inter Agency Review Materials

<u>NUMBER</u>	<u>DATE RECEIVED</u>	<u>COMMENTS OR ADDRESSEE OR TITLE (AS APPLICABLE)</u>	<u>DATE OF DOCUMENT</u>
II-F-1		Renewable Oxygenate Requirement for Reformulated Gasoline Proposed Rule: Preamble and Regulations -- Comments from OMB	None

DOCKET A-93-49

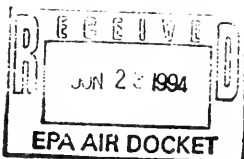
CATEGORY II-G

Pertinent Reports

<u>NUMBER</u>	<u>DATE RECEIVED</u>	<u>COMMENTS OR ADDRESSEE OR TITLE (AS APPLICABLE)</u>	<u>DATE OF DOCUMENT</u>
II-G-1		EPA Report: A Technology for Reduction of CO2 Emissions from the Transportation Sector	1992
II-G-2		U.S. Department of Energy Report: Assessment of Costs and Benefits of Flexible and Alternative Fuel Use in the U.S. Transportation Sector	December 1990

DOCKET A-93-49

CATEGORY II-G

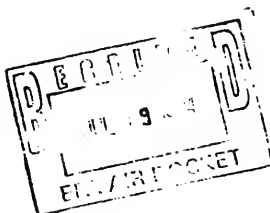


<u>NUMBER</u>	<u>DATE RECEIVED</u>	<u>Pertinent Reports COMMENTS OR ADDRESSEE OR TITLE (AS APPLICABLE)</u>	<u>DATE OF DOCUMENT</u>
II-G-3		"Alcohol Fuels Impacts from Increased Use of Ethanol Blended Fuels" by the General Accounting Office	July 1990
II-G-4		"Global Warming Impact of Ethanol Versus Gasoline" by S.P. Ho of Amoco Oil Company	Oct. 1989
II-G-5		"The U.S. Department of Energy Biofuels Research Program," by Bull, Stanley R., <u>et.al.</u> Presented at Energy from Biomass and Wastes Conference XIV, Orlando Florida.	1990
II-G-6		"Fuel Ethanol from Cellulosic Biomass," <u>Science</u> , Vol 251. Lynd, Lee R., <u>et.al.</u>	3/16/91
II-G-7		"Economic Stakes of Motor Biofuels and Effects of Industrial Development" by Bull, Stanley R. Presentation at First Motor Biofuel European Forum in Tours, France	May 1994
II-G-8		"How Much Energy Does it Take to Make a Gallon of Ethanol?" by David Morris and Irshad Ahmed of the Institute for Local Self-Reliance	December 1992

DOCKET A-93-49

CATEGORY II-G

<u>NUMBER</u>	<u>DATE RECEIVED</u>	<u>Pertinent Reports COMMENTER OR ADDRESSEE OR TITLE (AS APPLICABLE)</u>	<u>DATE OF DOCUMENT</u>
II-G-9		"Evaluation of the EPA's Proposal for Renewable Oxygenates", by James L. Sweeney of Stanford University.	May 1994
II-G-10		"The Economic Impact of EPA Proposed Regulation Mandating a 30 Percent Share for Ethanol in Reformulated Gasoline", by Thomas Host, and Leslie Cameron of Horst, Frisch, Colowery, & Finin, Inc.	2/17/94
II-G-11		"Ethanol Mandates are Inefficient Farm Policy", by W. David Montgomery & Christor of Charles River Associates.	1/31/94
II-G-12		"The Impact of a Proposed EPA Rule Mandating Renewable Oxygenates for Reformulated Gasoline: Questionable Energy Security, Environmental and Economic Benefit", by Vito Stagliano. Resources for the Future.	February 1994



DOCKET A-93-49

CATEGORY III-A

Notice of Proposed Rulemaking

<u>NUMBER</u>	<u>DATE RECEIVED</u>	<u>COMMENTS OR ADDRESSEE OR TITLE (AS APPLICABLE)</u>	<u>DATE OF DOCUMENT</u>
III-A-1		Renewable Oxygenate Requirement for Reformulated Gasoline Proposed Rule: Preamble and Regulations	12/15/93

DOCKET A-93-49

CATEGORY III-B

Proposed Support Document

<u>NUMBER</u>	<u>DATE RECEIVED</u>	<u>COMMENTS OR ADDRESSEE OR TITLE (AS APPLICABLE)</u>	<u>DATE OF DOCUMENT</u>
III-B-1		Technical Support Document: Renewable Oxygenate Mandate for Reformulated Gasoline	December 1993

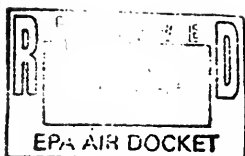
DOCKET: A - 93 - 49Category: VI - A**Request or Order Seeking or Directing Reconsideration or an Administrative Stay**

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>PETITIONER, TITLE, DESCRIPTION, ETC.</u>	<u>DATE OF DOCUMENT</u>
VI-A-1		Emergency Petition for Stay and Exhibits, Vol. 1 and 2, from American Petroleum Institute and National Petroleum Refiners Assoc.	July 13, 1994

DOCKET A-93-49

CATEGORY IV-B

EPA Factual Memorandum



<u>NUMBER</u>	<u>DATE RECEIVED</u>	<u>COMENTER OR ADDRESSEE OR TITLE (AS APPLICABLE)</u>	<u>DATE OF DOCUMENT</u>
IV-B-1		Impact of Renewable Oxygenate Program on Dispensed Gasoline RVP Before and After the Summer VOC Control Season. Memorandum from Rick Rykowski, Assistant to the Director, to Chester J. France, Director, Regulation Development and Support Division	6/17/94

DOCKET A-93-49
CATEGORY IV-E

EPA Memoranda of Meetings with Outside Parties

<u>NUMBER</u>	<u>DATE RECEIVED</u>	<u>COMENTER OR ADDRESSEE OR TITLE (AS APPLICABLE)</u>	<u>DATE OF DOCUMENT</u>
IV-E-1		Documentation of EPA meeting with USDA, RFA CFDC, NCGA and the GEC on June 3, 1994	6/13/94

DOCKET A-93-49

CATEGORY IV-F

Transcript of Hearing

<u>NUMBER</u>	<u>DATE RECEIVED</u>	<u>COMMENTS OR ADDRESSEE OR TITLE (AS APPLICABLE)</u>	<u>DATE OF DOCUMENT</u>
IV-F-1		Renewable Oxygenate Requirement Public Hearing Attendee List	1/14/94
IV-F-2		Welcome/Opening Statement by U.S. Environmental Protection Agency	1/14/94
IV-F-3		Congressman Glenn Poshard of Illinois	1/14/94
IV-F-4		Congressman Thomas W. Ewing of Illinois	1/14/94
IV-F-5		Congressman Jim Nussle of Iowa	1/14/94
IV-F-6		Illinois Farm Bureau, Ronald Warfield	1/14/94
IV-F-7		Illinois Corn Growers Association, Bob Fitzpatrick	1/14/94
IV-F-8		Clean Fuels Development Coalition, Roger Burken	1/14/94
IV-F-9		Synthetic Energy, David E. Hallberg	1/14/94
IV-F-10		Cargill, Inc., Tom Geiger	1/14/94
IV-F-11		Nebraska Ethanol Board, Todd C. Sneller	1/14/94
IV-F-12		Exxon Company, Joe T. McMillan	1/14/94
IV-F-13		Conoco, Inc., Gary Edwards	1/14/94
IV-F-14		American Petroleum Institute, William F. Okeefe	1/14/94
IV-F-15		Charles River Association, W. David Montgomery	1/14/94
IV-F-16		National Association of State Departments of Agriculture, Sarah Vogel	1/14/94
IV-F-17		Iowa Department of Agriculture and Iowa Office of Renewable Fuel, Dale M. Cochran	1/14/94

DOCKET A-93-49

CATEGORY IV-F

Transcript of Hearing

<u>NUMBER</u>	<u>DATE RECEIVED</u>	<u>COMMENTS OR ADDRESSEE OR TITLE (AS APPLICABLE)</u>	<u>DATE OF DOCUMENT</u>
IV-F-18		State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials, S. William Becker	1/14/94
IV-F-19		Highway Users Federation, Taylor Bowlden	1/14/94
IV-F-20		National Petroleum Refiners Association, Roger Hemminghaus	1/14/94
IV-F-21		Petroleum Marketers Association of America, John J. Huber	1/14/94
IV-F-22		Pekin Energy, Jack Huggins	1/14/94
IV-F-23		Downstream Alternatives, Inc., Robert E. Reynolds	1/14/94
IV-F-24		Renewable Fuels Association, Eric Vaughn	1/14/94
IV-F-25		Governor Terry Branstad of Iowa	1/14/94
IV-F-26		Governor E. Benjamin Nelson of Nebraska	1/14/94
IV-F-27		Oxygenated Fuels Association, Fred C. Craft	1/14/94
IV-F-28		American Farm Bureau Federation, Bryce Neidig	1/14/94
IV-F-29		Behalf of Governor Jim Edgar (Illinois), Allen Grosboll	1/14/94
IV-F-30		Behalf of Governor Walter D. Miller (South Dakota), Roger Scheibe	1/14/94
IV-F-31		Behalf of Governor Tommy G. Thompson (Wisconsin), Jeffrey Knight	1/14/94
IV-F-32		Governor Arne Carlson of Minnesota	1/14/94
IV-F-33		National Renewable Energy Laboratory, Charles Wyman	1/14/94

DOCKET A-93-49

CATEGORY IV-F

Transcript of Hearing

<u>NUMBER</u>	<u>DATE RECEIVED</u>	<u>COMMENTS OR ADDRESSEE OR TITLE (AS APPLICABLE)</u>	<u>DATE OF DOCUMENT</u>
IV-F-34		Valero Energy Company, Linda Stuntz	1/14/94
IV-F-35		American Methanol Institute, Raymond A. Lewis	1/14/94
IV-F-36		Methanex Corporation, Frederick R. Anderson	1/14/94
IV-F-37		Citizens for a Sound Economy, Wayne T. Brough	1/14/94
IV-F-38		American Enterprise Institute, Robert W. Hahn	1/14/94
IV-F-39		National Corn Growers Association, Pete Wenstrand	1/14/94
IV-F-40		Oak Ridge National Laboratory, Gregg Marland	1/14/94
IV-F-41		Institute for Local Self Reliance, David Morris	1/14/94
IV-F-42		ARCO Chemical Company, William J. Piel	1/14/94
IV-F-43		American Biofuels Association, Bill Holmberg	1/14/94
IV-F-44		American Corn Growers Association, Robert Koskan	1/14/94
IV-F-45		National Grain Sorghum Producers, Jere L. White	1/14/94
IV-F-46		Nebraska Corn Growers Association, Richard Plock	1/14/94
IV-F-47		Honorable Bill Barrett	1/14/94
IV-F-48		Congressman Jerry F. Costello of Illinois	1/14/94
IV-F-49		Natural Gas Supply Association, Nicolas J. Bush	1/14/94

DOCKET A-93-49

CATEGORY IV-H

Inter-Agency Review Materials

<u>NUMBER</u>	<u>DATE RECEIVED</u>	<u>COMMENTER OR ADDRESSEE OR TITLE (AS APPLICABLE)</u>	<u>DATE OF DOCUMENT</u>
IV-H-1		Working Draft of Renewable Oxygenate Requirement for Reformulated Gasoline: Preamble and Regulations	6/8/94
IV-H-2		USDA comments on the Working Draft of Renewable Oxygenate Requirement for Reformulated Gasoline: Preamble and Regulations	6/13/94
IV-H-3		Effects of Increased Ethanol Use on Federal Government Outlays and Net Farm Income (Memorandum from John W. McClelland, USDA, to Richard Wilson, EPA)	6/20/94
IV-H-4		Final Regulatory Impact Analysis for the Renewable Oxygenate Requirement for Reformulated Gasoline - DRAFT	6/24/94
IV-H-5		Regulation of Fuels and Fuel Additives: Renewable Oxygenate Requirement for Reformulated Gasoline Final Rule - DRAFT	None

DOCKET A-93-49

CATEGORY V

FINAL ACTION

<u>NUMBER</u>	<u>DATE RECEIVED</u>	<u>COMMENTER OR ADDRESSEE OR TITLE (AS APPLICABLE)</u>	<u>DATE OF DOCUMENT</u>
V-A-1		Renewable Oxygenate Requirement for Reformulated Gasoline: Preamble and Regulations	
V-B-1		Regulatory Impact Analysis and Summary and Analysis of Comment For: the Renewable Oxygenate Requirement for Reformulated Gasoline	6/29/94

DOCKET: A-93-49

CATEGORY: II-D

Correspondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D</u>	<u>COMMENTER OR ADDRESSEE, TITLE, DESCRIPTION, ETC.</u>	<u>DATE OF</u>
<u>DOCUMENT</u>	<u>IN DOCKET</u>		
II-D-01	01-04-94	R. Saxon, private citizen, to R. Wilson, Office of Mobile Sources, EPA.	12-16-93
II-D-02	01-13-94	J. D. Eckley, private citizen, to EPA Air Docket.	01-09-94
II-D-03	01-14-94	R. McKain, private citizen, to EPA Air Docket.	01-11-94
II-D-04	01-14-94	L. Hobart, private citizen, to EPA Air Docket.	01-11-94
II-D-05	01-14-94	A. Brown, private citizen, to EPA Air Docket.	01-10-94
II-D-06	01-14-94	Mr. & Mrs. C. Zimmerman, private citizens, to EPA Air Docket.	01-11-94
II-D-07	01-14-94	R. Postin, private citizen, to EPA Air Docket.	01-10-94
II-D-08	01-14-94	E. W. Osterbur, private citizen, to EPA Air Docket.	01-11-94
II-D-09	01-14-94	D. Guth, private citizen, to EPA Air Docket.	01-11-94
II-D-10	01-14-94	D. Proehl, private citizen, to EPA Air Docket.	undated
II-D-11	01-14-94	E. G. Proehl, private citizen, to EPA Air Docket.	undated
II-D-12	01-14-94	R. Hixenbayh, private citizen, to EPA Air Docket.	01-11-94
II-D-13	01-19-94	L. King, private citizen, to EPA Air Docket.	01-11-94
II-D-14	01-19-94	R. Rice, private citizen, to EPA Air Docket.	undated
II-D-15	01-19-94	J. A. Zelhart, private citizen, to EPA Air Docket.	01-13-94

DOCKET: A-93-49CATEGORY: II-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u> <u>DOCUMENT</u>	<u>DATE REC'D</u> <u>IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION, ETC.</u>	<u>DATE OF</u>
II-D-16	01-19-94	Mr. & Mrs. S. Ferguson, private citizens, to EPA Air Docket.	01-09-94
II-D-17	01-19-94	M. D. Caldwell, private citizen, to EPA Air Docket.	01-11-94
II-D-18	01-19-94	M. Weber, Webers Christmas Forest, to EPA Air Docket.	01-10-94
II-D-19	01-19-94	C. W. Herrmann, Charles W. Hermann, Inc., to EPA Air Docket.	undated
II-D-20	01-19-94	G. Fogel, Macoupon Service Company, to EPA Air Docket.	01-14-94
II-D-21	01-19-94	M. B. Duncan, private citizen, to EPA Air Docket.	undated
II-D-22	01-19-94	L. Mohr, private citizen, to EPA Air Docket.	undated
II-D-23	01-21-94	A. M. Schafer, private citizen, to EPA Air Docket.	01-12-94
II-D-24	01-21-94	M. Tuttle, private citizen, to EPA Air Docket.	01-14-94
II-D-25	01-21-94	John F___, McLean County Service Co.	undated
II-D-26	01-21-94	B. Bertsche, private citizen, to EPA Air Docket.	01-15-94
II-D-27	01-21-94	D. Mills, private citizen, to EPA Air Docket.	01-14-94
II-D-28	01-21-94	W. Metz, private citizen, to EPA Air Docket.	01-14-94
II-D-29	01-21-94	M. L. Mills, private citizen, to EPA Air Docket.	01-14-94
II-D-30	01-21-94	T. and A. Johnson, private citizens, to EPA Air Docket.	01-13-94

DOCKET: A-93-49CATEGORY: II-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D</u>	<u>COMMENTER OR ADDRESSEE, TITLE, DESCRIPTION, ETC.</u>	<u>DATE OF</u>
<u>DOCUMENT</u>	<u>IN DOCKET</u>		
II-D-31	01-21-94	L. A. Poppe, private citizen, to EPA Air Docket.	01-14-94
II-D-32	01-24-94	E. Zimmerlein, Illinois Agri-Women, to EPA Air Docket.	01-14-94
II-D-33	01-24-94	J. Reep, private citizen, to EPA Air Docket	01-13-94
II-D-34	01-24-94	S. W. Stahl, private citizen, to EPA Air Docket.	01-14-94
II-D-35	01-24-94	B. Kloopping, private citizen, to EPA Air Docket.	01-22-94
II-D-36	01-24-94	E. E. Campbell, private citizen, to EPA Air Docket.	01-07-94
II-D-37	01-24-94	D. E. Manns, private citizen, to EPA Air Docket.	01-12-94
II-D-38	01-24-94	K. L. Smith, private citizen, to EPA Air Docket.	01-11-94
II-D-39	01-24-94	C. W. Hasz, FS Carroll Service Company, to EPA Air Docket.	01-17-94
II-D-40	01-24-94	W. H. Tweedy, private citizen, to EPA Air Docket.	01-11-94
II-D-41	01-24-94	H. E. Huddlestun, private citizen, to EPA Air Docket.	01-11-94
II-D-42	01-24-94	J. Rinscherff, private citizen, to EPA Air Docket.	undated
II-D-43	01-24-94	R. Sims, private citizen, to EPA Air Docket.	01-18-94
II-D-44	01-24-94	L. C. Kersten, Private citizen, to EPA Air Docket.	01-14-94
II-D-45	01-24-94	L. L. Horn, private citizen, to EPA Air Docket.	01-13-94

DOCKET: A-93-49CATEGORY: II-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u> <u>DOCUMENT</u>	<u>DATE REC'D</u> <u>IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION, ETC.</u>	<u>DATE OF</u>
II-D-46	01-24-94	E. Rich, private citizen, to EPA Air Docket.	01-17-94
II-D-47	01-24-94	G. Wesner, Bureau Service Company, to EPA Air Docket.	01-17-94
II-D-48	01-24-94	D. Oehler, Prairie FS Fuels, Inc., to EPA Air Docket.	01-14-94
II-D-49	01-24-94	M. Champion, private citizen, to EPA Air Docket.	01- -94
II-D-50	01-24-94	Mr. and Mrs. F. Williams, private citizens, to EPA Air Docket.	undated
II-D-51	01-24-94	L. and F. Wildman, private citizens, to EPA Air Docket.	01-14-94
II-D-52	01-24-94	J. A. Wrubbels, Jr., private citizen, to EPA Air Docket.	01-19-94
II-D-53	01-24-94	C. and H. Miller, private citizens, to EPA Air Docket.	01-20-94
II-D-54	01-24-94	J. A. Stetson, private citizen, to EPA Air Docket.	01-19-94
II-D-55	01-24-94	W. Schaffer, private citizen, to EPA Air Docket.	01-12-94
II-D-56	01-24-94	A. Nelson, private citizen, to EPA Air Docket.	01-15-94
II-D-57	01-24-94	A. Stamberger, private citizen, to EPA Air Docket.	01-12-94
II-D-58	01-24-94	N. Gaither, private citizen, to EPA Air Docket.	01-12-94
II-D-59	01-24-94	F. And K. Steckler, private citizens, to EPA Air Docket.	01-18-94
II-D-60	01-24-94	M. and J. Maurer, private citizens, to EPA Air Docket.	01-12-94

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II-D-61	01-24-94	D. Medaris, private citizen, to EPA Air Docket.	01-14-94
II-D-62	01-24-94	P. Gilles, private citizen, to EPA Air Docket.	01-12-94
II-D-63	01-24-94	Mr. and Mrs. D. Newcomer, private citizens, to EPA Air Docket.	01-12-94
II-D-64	01-24-94	M. Sommer, private citizen, to EPA Air Docket.	01-12-94
II-D-65	01-24-94	E. Bacher, private citizen, to EPA Air Docket.	01-15-94
II-D-66	01-24-94	Mrs. M. E. Crawford, private citizen, to EPA Air Docket.	01-12-94
II-D-67	01-24-94	J. Payne, private citizen, to EPA Air Docket.	01-12-94
II-D-68	01-24-94	R. D. Walker, private citizen, to EPA Air Docket.	01-12-94
II-D-69	01-24-94	D. Riegh, private citizen, to EPA Air Docket.	01-12-94
II-D-70	01-24-94	W. Forth, private citizen, to EPA Air Docket.	01-14-94
II-D-71	01-24-94	8 letters, FS Livingston Service Co., to EPA Air Docket.	01-17-94
II-D-72	01-24-94	R. Clark, private citizen, to EPA Air Docket.	01-13-94
II-D-73	01-24-94	S. J. Cunningham, private citizen, to EPA Air Docket.	01-11-94
II-D-74	01-24-94	E. Baye, Governor, State of Indiana, to Carol M. Browner, Administrator, EPA.	01-14-94
II-D-75	01-24-94	D. Wettstein, Flanagan State Bank, to EPA Air Docket.	01-14-94

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<u>NUMBER DOCUMENT</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION, ETC.</u>	<u>DATE OF</u>
II-D-76	01-24-94	T. L. Eveland, Kern Oil & Refining Co., to EPA Air Docket.	01-18-94
II-D-77	01-24-94	27 letters, private citizens, to EPA Air Docket.	01-12-94
II-D-78	01-24-94	E. B. Schertz, private citizen, to EPA Air Docket.	01-13-94
II-D-79	01-24-94	D. L. Flake, private citizen, to EPA Air Docket.	01-18-94
II-D-80	01-24-94	R. D. and D. J. Keener, private citizens, to EPA Air Docket.	01-14-94
II-D-81	01-24-94	J. Strullmyer, private citizen, to EPA Air Docket.	undated
II-D-82	01-24-94	L. A. Wessel, private citizen, to EPA Air Docket.	undated
II-D-83	01-24-94	B. L. Bensema, Interstates Electric & Engineering, to EPA Air Docket.	01-20-94
II-D-84	01-24-94	R. M. Williamsons, private citizen, to EPA Air Docket.	01-12-94
II-D-85	01-24-94	H. C. Randolph, private citizen, to EPA Air Docket.	01-18-94
II-D-86	01-24-94	W. Stimport, private citizen, to EPA Air Docket.	01-18-94
II-D-87	01-24-94	M. Carpenter, private citizen, to EPA Air Docket.	undated
II-D-88	01-24-94	P. and E. Sancken, private citizens, to EPA Air Docket.	01-18-94
II-D-89	01-24-94	Mr. and Mrs. L. Code, private citizens, to EPA Air Docket.	01-17-94
II-D-90	01-24-94	J. C. Huffstutler, private citizen, to EPA Air Docket.	01-19-94

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<u>NUMBER DOCUMENT</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION, ETC.</u>	<u>DATE OF</u>
II-D-91	01-25-94	T. Bline, Roanoke Farmers Association, to EPA Air Docket.	01-19-94
II-D-92	01-25-94	D. J. Thompson, Eminence Grain and Coal Association, to EPA Air Docket.	01-18-94
II-D-93	01-24-94	D. R. Adams, Farmers Grain Company, to EPA Air Docket.	01-20-94
II-D-94	01-24-94	D. D. Zimmerman, Zimmerman Farms, Inc., to EPA Air Docket.	01-18-94
II-D-95	01-25-94	R. Dickhut, Adams County Farm Bureau, to EPA Air Docket.	01-19-94
II-D-96	01-25-94	3 letters, Stephenson Service Company, to EPA Air Docket.	01-19-94
II-D-97	01-25-94	J. Gillespie, Gateway FS, Inc., to EPA Air Docket.	01-20-94
II-D-98	01-25-94	A. Wagner, Mason County Service Company, to EPA Air Docket.	01-21-94
II-D-99	01-25-94	23 letters, Livingston Service Co., to EPA Air Docket.	01-17-94
II-D-100	01-25-94	F. Boyle, Clear Creek Farm, to EPA Air Docket.	01-17-94
II-D-101	01-26-94	W. J. Campion, Campion Brothers, to EPA Air Docket.	01-15-94
II-D-102	01-26-94	D. Condit, Condit's Ranch, to EPA Air Docket.	undated
II-D-103	01-25-94	C. Meisenheimer, Meisenheimer Farms, to EPA Air Docket.	01-20-94
II-D-104	01-25-94	T. L. Wolf, Wolf Farms, to EPA Air Docket.	01-13-94
II-D-105	01-26-94	M. L. Anderson, S/M Service Co., to EPA Air Docket.	01-18-94

DOCKET: A-93-49CATEGORY: II-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u> <u>DOCUMENT</u>	<u>DATE REC'D</u> <u>IN DOCKET</u>	<u>COMMENTER OR ADDRESSEE, TITLE, DESCRIPTION, ETC.</u>	<u>DATE OF</u> <u>ETC.</u>
II-D-106	01-26-94	J. E. Nugent, Railroad Commission of Texas, to EPA Air Docket.	01-13-94
II-D-107	01-25-94	T. R. McMillen, TAMPAM Farms, Inc., to EPA Air Docket.	01-18-94
II-D-108	01-25-94	D. R. Johnson, Growmark, Inc., to EPA Air Docket.	01-19-94
II-D-109	01-25-94	J. W. Spradlin, Piatt County Service Co., to EPA Air Docket.	01-19-94
II-D-110	01-25-94	G. Ludwig, LaSalle County Farm Supply Co., to EPA Air Docket.	01-19-94
II-D-111	01-26-94	J. Kelly, Gardner Sales & Service, Inc., to EPA Air Docket.	undated
II-D-112	01-25-94	12 letters, corn growers, to EPA Air Docket	undated
II-D-113	01-25-94	12 letters, residents not involved in corn growing, to EPA Air Docket.	undated
II-D-114	01-24-94	89 letters, private citizens, to EPA Air Docket.	varied 01-94
II-D-115	01-24-94	167 letters, private citizens, to EPA Air Docket.	varied 01-94
II-D-116	01-24-94	150 comment cards, Iowa corn farmers, to EPA Air Docket.	undated
II-D-117	01-24-94	29 comment cards, private citizens, to EPA Air Docket.	undated

DOCKET: A-93-49

CATEGORY: IV-D

Correspondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTER OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-01	01-04-94	R. Saxon, private citizen, to R. Wilson, Office of Mobile Sources, EPA.	12-16-93
IV-D-02	01-13-94	J. D. Eckley, private citizen, to EPA Air Docket.	01-09-94
IV-D-03	01-14-94	R. McKain, private citizen, to EPA Air Docket.	01-11-94
IV-D-04	01-14-94	L. Hobart, private citizen, to EPA Air Docket.	01-11-94
IV-D-05	01-14-94	A. Brown, private citizen, to EPA Air Docket.	01-10-94
IV-D-06	01-14-94	Mr. & Mrs. C. Zimmerman, private citizens, to EPA Air Docket.	01-11-94
IV-D-07	01-14-94	R. Postin, private citizen, to EPA Air Docket.	01-10-94
IV-D-08	01-14-94	E. W. Osterbur, private citizen, to EPA Air Docket.	01-11-94
IV-D-09	01-14-94	D. Guth, private citizen, to EPA Air Docket.	01-11-94
IV-D-10	01-14-94	D. Proehl, private citizen, to EPA Air Docket.	undated
IV-D-11	01-14-94	E. G. Proehl, private citizen, to EPA Air Docket.	undated
IV-D-12	01-14-94	R. Hixenbayh, private citizen, to EPA Air Docket.	01-11-94
IV-D-13	01-19-94	L. King, private citizen, to EPA Air Docket.	01-11-94
IV-D-14	01-19-94	R. Rice, private citizen, to EPA Air Docket.	undated
IV-D-15	01-19-94	J. A. Zelhart, private citizen, to EPA Air Docket.	01-13-94

DOCKET: A-93-49CATEGORY: IV-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-16	01-19-94	Mr. & Mrs. S. Ferguson, private citizens, to EPA Air Docket.	01-09-94
IV-D-17	01-19-94	M. D. Caldwell, private citizen, to EPA Air Docket.	01-11-94
IV-D-18	01-19-94	M. Weber, Webers Christmas Forest, to EPA Air Docket.	01-10-94
IV-D-19	01-19-94	C. W. Herrmann, Charles W. Hermann, Inc., to EPA Air Docket.	undated
IV-D-20	01-19-94	G. Fogel, Macoupin Service Company, to EPA Air Docket.	01-14-94
IV-D-21	01-19-94	M. B. Duncan, private citizen, to EPA Air Docket.	undated
IV-D-22	01-19-94	L. Mohr, private citizen, to EPA Air Docket.	undated
IV-D-23	01-21-94	A. M. Schafer, private citizen, to EPA Air Docket.	01-12-94
IV-D-24	01-21-94	M. Tuttle, private citizen, to EPA Air Docket.	01-14-94
IV-D-25	01-21-94	John F____, McLean County Service Co.	undated
IV-D-26	01-21-94	B. Bertsche, private citizen, to EPA Air Docket.	01-15-94
IV-D-27	01-21-94	D. Mills, private citizen, to EPA Air Docket.	01-14-94
IV-D-28	01-21-94	W. Metz, private citizen, to EPA Air Docket.	01-14-94
IV-D-29	01-21-94	M. L. Mills, private citizen, to EPA Air Docket.	01-14-94
IV-D-30	01-21-94	T. and A. Johnson, private citizens, to EPA Air Docket.	01-13-94

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<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE. TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-31	01-21-94	L. A. Poppe, private citizen, to EPA Air Docket.	01-14-94
IV-D-32	01-24-94	E. Zimmerlein, Illinois Agri-Women, to EPA Air Docket.	01-14-94
IV-D-33	01-24-94	J. Reep, private citizen, to EPA Air Docket	01-13-94
IV-D-34	01-24-94	S. W. Stahl, private citizen, to EPA Air Docket.	01-14-94
IV-D-35	01-24-94	B. Kloeping, private citizen, to EPA Air Docket.	01-22-94
IV-D-36	01-24-94	E. E. Campbell, private citizen, to EPA Air Docket.	01-07-94
IV-D-37	01-24-94	D. E. Manns, private citizen, to EPA Air Docket.	01-12-94
IV-D-38	01-24-94	K. L. Smith, private citizen, to EPA Air Docket.	01-11-94
IV-D-39	01-24-94	C. W. Hasz, FS Carroll Service Company, to EPA Air Docket.	01-17-94
IV-D-40	01-24-94	W. H. Tweedy, private citizen, to EPA Air Docket.	01-11-94
IV-D-41	01-24-94	H. E. Huddleston, private citizen, to EPA Air Docket.	01-11-94
IV-D-42	01-24-94	J. Rinscherff, private citizen, to EPA Air Docket.	undated
IV-D-43	01-24-94	R. Sims, private citizen, to EPA Air Docket.	01-18-94
IV-D-44	01-24-94	L. C. Kersten, Private citizen, to EPA Air Docket.	01-14-94
IV-D-45	01-24-94	L. L. Horn, private citizen, to EPA Air Docket.	01-13-94

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IV-D-46	01-24-94	E. Rich, private citizen, to EPA Air Docket.	01-17-94
IV-D-47	01-24-94	G. Wesner, Bureau Service Company, to EPA Air Docket.	01-17-94
IV-D-48	01-24-94	D. Oehler, Prairie FS Fuels, Inc., to EPA Air Docket.	01-14-94
IV-D-49	01-24-94	M. Champion, private citizen, to EPA Air Docket.	01- -94
IV-D-50	01-24-94	Mr. and Mrs. F. Williams, private citizens, to EPA Air Docket.	undated
IV-D-51	01-24-94	L. and F. Wildman, private citizens, to EPA Air Docket.	01-14-94
IV-D-52	01-24-94	J. A. Wrubbels, Jr., private citizen, to EPA Air Docket.	01-19-94
IV-D-53	01-24-94	C. and H. Miller, private citizens, to EPA Air Docket.	01-20-94
IV-D-54	01-24-94	J. A. Stetson, private citizen, to EPA Air Docket.	01-19-94
IV-D-55	01-24-94	W. Schaffer, private citizen, to EPA Air Docket.	01-12-94
IV-D-56	01-24-94	A. Nelson, private citizen, to EPA Air Docket.	01-15-94
IV-D-57	01-24-94	A. Stamberger, private citizen, to EPA Air Docket.	01-12-94
IV-D-58	01-24-94	N. Gaither, private citizen, to EPA Air Docket.	01-12-94
IV-D-59	01-24-94	F. And K. Steckler, private citizens, to EPA Air Docket.	01-18-94
IV-D-60	01-24-94	M. and J. Maurer, private citizens, to EPA Air Docket.	01-12-94

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V-D-61	01-24-94	D. Medaris, private citizen, to EPA Air Docket.	01-14-94
V-D-62	01-24-94	P. Gilles, private citizen, to EPA Air Docket.	01-12-94
V-D-63	01-24-94	Mr. and Mrs. D. Newcomer, private citizens, to EPA Air Docket.	01-12-94
V-D-64	01-24-94	M. Sommer, private citizen, to EPA Air Docket.	01-12-94
V-D-65	01-24-94	E. Bacher, private citizen, to EPA Air Docket.	01-15-94
V-D-66	01-24-94	Mrs. M. E. Crawford, private citizen, to EPA Air Docket.	01-12-94
V-D-67	01-24-94	J. Payne, private citizen, to EPA Air Docket.	01-12-94
V-D-68	01-24-94	R. D. Walker, private citizen, to EPA Air Docket.	01-12-94
V-D-69	01-24-94	D. Riegh, private citizen, to EPA Air Docket.	01-12-94
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IV-D-79	01-24-94	D. L. Flake, private citizen, to EPA Air Docket.	01-18-94
IV-D-80	01-24-94	R. D. and D. J. Keener, private citizens, to EPA Air Docket.	01-14-94
IV-D-81	01-24-94	J. Strullmyer, private citizen, to EPA Air Docket.	undated
IV-D-82	01-24-94	L. A. Wessel, private citizen, to EPA Air Docket.	undated
IV-D-83	01-24-94	B. L. Bensema, Interstates Electric & Engineering, to EPA Air Docket.	01-20-94
IV-D-84	01-24-94	R. M. Williamsons, private citizen, to EPA Air Docket.	01-12-94
IV-D-85	01-24-94	H. C. Randolph, private citizen, to EPA Air Docket.	01-18-94
IV-D-86	01-24-94	W. Stimport, private citizen, to EPA Air Docket.	01-18-94
IV-D-87	01-24-94	M. Carpenter, private citizen, to EPA Air Docket.	undated
IV-D-88	01-24-94	P. and E. Sancken, private citizens, to EPA Air Docket.	01-18-94
IV-D-89	01-24-94	Mr. and Mrs. L. Code, private citizens, to EPA Air Docket.	01-17-94
IV-D-90	01-24-94	J. C. Huffstutler, private citizen, to EPA Air Docket.	01-19-94

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IV-D-92	01-25-94	D. J. Thompson, Eminence Grain and Coal Association, to EPA Air Docket.	01-18-94
IV-D-93	01-24-94	D. R. Adams, Farmers Grain Company, to EPA Air Docket.	01-20-94
IV-D-94	01-24-94	D. D. Zimmerman, Zimmerman Farms, Inc., to EPA Air Docket.	01-18-94
IV-D-95	01-25-94	R. Dickhut, Adams County Farm Bureau, to EPA Air Docket.	01-19-94
IV-D-96	01-25-94	3 letters, Stephenson Service Company, to EPA Air Docket.	01-19-94
IV-D-97	01-25-94	J. Gillespie, Gateway FS, Inc., to EPA Air Docket.	01-20-94
IV-D-98	01-25-94	A. Wagner, Mason County Service Company, to EPA Air Docket.	01-21-94
IV-D-99	01-25-94	23 letters, Livingston Service Co., to EPA Air Docket.	01-17-94
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IV-D-101	01-26-94	W. J. Campion, Campion Brothers, to EPA Air Docket.	01-15-94
IV-D-102	01-26-94	D. Condit, Condit's Ranch, to EPA Air Docket.	undated
IV-D-103	01-25-94	C. Meisenheimer, Meisenheimer Farms, to Docket.	01-20-94
IV-D-104	01-25-94	T. L. Wolf, Wolf Farms, to EPA Air Docket.	01-13-94
IV-D-105	01-26-94	M. L. Anderson, S/M Service Co., to EPA Air Docket.	01-18-94

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IV-D-237	02-14-94	Dunkerton Cooperative Elevator	undated
IV-D-238	02-14-94	McDonough FS, Inc. (Docket Error; Comment for A-91-73, 4-28-94)	02-07-94
IV-D-239	02-14-94	Iowa River FS, Inc. (Docket Error; Comment for A-91-73, 4-28-94)	02-07-94
IV-D-240	02-14-94	Stephenson Service Company	02-07-94
IV-D-241	02-10-94	Illinois Corn Growers Association	01-28-94
IV-D-242	02-14-94	Country Companies (3 letters)	01-27-94
IV-D-243	02-14-94	MFA Oil	02-11-94
IV-D-244	02-09-94	Carroll County, Overall Economic Development Committee	02-03-94
IV-D-245	02-17-94	Holzinger Real Estate Agency Inc.	02-04-94
IV-D-246	02-17-94	W.B. Johnston Grain Company	02-14-94
IV-D-247	02-17-94	Ray Wiegand's Nursery Inc.	02-11-94
IV-D-248	02-14-94	Estebo, Schnobrich, Frank & Solie, Ltd. (2 letters)	02-11-94
IV-D-249	02-14-94	H. Daggett, House of Representatives, State of Iowa	02-08-94
IV-D-250	02-14-94	M. E. Bartz, The Senate, State of Iowa	undated
IV-D-251	02-14-94	State of South Dakota, Governor's Office	01-10-94
IV-D-252	02-14-94	C. Hurley, House of Representatives, State of Iowa	02-08-94
IV-D-253	02-14-94	State of Connecticut, Office of Policy and Management	02-08-94
IV-D-254	02-14-94	City of Christopher (IL)	02-09-94
IV-D-255	02-14-94	B. Braun, House of Representatives, State of Iowa	02-03-94

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<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-256	02-14-94	Sheriff of Franklin County	02-08-94
IV-D-257	02-14-94	G. Blodgett, House of Representatives, State of Iowa	02-06-94
IV-D-258	02-14-94	Blue Earth Industrial Service Company (13 letters)	02-07-94
IV-D-259	02-09-94	Federated Rural Electric	02-04-94
IV-D-260	02-09-94	West Central Cooperative	02-03-94
IV-D-261	02-09-94	Blooming Prairie Development Corporation	02-04-94
IV-D-262	02-09-94	California Energy Commission	02-14-94
IV-D-263	02-11-94	Galveston-Houston Association for Smog Prevention (Docket Error; Comment for A-91-73, 4-28-94)	02-11-94
IV-D-264	02-17-94	Maryland Energy Administration	02-14-94
IV-D-265	02-14-94	Consumers Power (Docket Error; Comment for A-91-73, 4-28-94)	02-14-94
IV-D-266	02-17-94	T. Cross, House of Representatives, State of Illinois	02-14-94
IV-D-267	02-17-94	D.R. Leitch, House of Representatives, State of Illinois	02-14-94
IV-D-268	02-17-94	Northrup King Co. (3 letters)	02-17-94
IV-D-269	02-15-94	City of Windom, (20 letters)	02-09-94
IV-D-270	02-14-94	State Bank of Toulon (4 letters)	02-11-94
IV-D-271	02-09-94	AMCORE Bank	01-26-94
IV-D-272	02-17-94	State Bank of Whittington	02-10-94
IV-D-273	02-09-94	State Bank of Prairie Du Rocher	02-05-94
IV-D-274	02-08-94	First Busey Trust & Investment Co. (13 letters)	02-01-94
IV-D-275	02-14-94	The First National Bank of Sparta	02-10-94

DOCKET: A-93-49

CATEGORY: IV-D

Correspondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-276	02-17-94	Sparta Area Chamber of Commerce	02-08-94
IV-D-277	02-14-94	Illinois Corn Growers Association (testimony and attachments A thru X)	02-14-94
IV-D-278	02-14-94	Interstate Natural Gas Association of America	01-31-94
IV-D-279	02-15-94	John Wood Community College - Agriculture Education Center	02-10-94
IV-D-280	02-15-94	Renville Economic Development Authority	02-09-94
IV-D-281	02-15-94	State of Iowa, Department of Economic Development	02-04-94
IV-D-282	02-15-94	The Water Foundation	02-10-94
IV-D-283	02-15-94	Howard/Cooper County Regional Port Authority	02-08-94
IV-D-284	02-15-94	C. Balanoff, Illinois State Representative	02-14-94
IV-D-285	02-15-94	The National Bank of Plymouth (7 letters)	02-07-94
IV-D-286	02-17-94	State of Illinois, Environmental Protection Agency	02-10-94
IV-D-287	02-17-94	R. Durbin et al, Congress of the United States	02-11-94
IV-D-288	02-17-94	The Sun Company, Inc.	02-14-94
IV-D-289	02-15-94	IOP Associates, Inc., on behalf of CBI Ethanol Producers Group	undated
IV-D-290	02-15-94	American Coalition for Ethanol	undated
IV-D-291	02-15-94	First State Bank (Biggsville)	undated
IV-D-292	02-15-94	United States Postal Service (Camp Grove, IL)	01-24-94
IV-D-293	02-15-94	Cylinder Co-op Elevator Company	undated

DOCKET: A-93-49CATEGORY: IV-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTER OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-294	02-15-94	State Bank of Sherrard (2 letters)	01-20-94
IV-D-295	02-15-94	Missouri Highway and Transportation Commission	02-14-94
IV-D-296	02-16-94	Benton Area Chamber of Commerce	02-04-94
IV-D-297	02-16-94	State of Texas, Energy Conservation Office	02-11-94
IV-D-298	02-14-94	Missouri Corn Growers Association (Corn Grower Membership Update)	02-94
IV-D-299	02-14-94	P. Harper, State of Iowa, House of Repre- sentatives	02-10-94
IV-D-300	02-17-94	California Renewable Fuels Council	02-14-94
IV-D-301	02-08-94	First State Bank of Campbell Hill	01-31-94
IV-D-302	02-08-94	Jackson-Union Counties Regional Port District	01-31-94
IV-D-303	02-08-94	A. Borlaug, The Senate, State of Iowa	02-03-94
IV-D-304	02-08-94	T. Vilsack, The Senate, State of Iowa	02-04-94
IV-D-305	02-08-94	First State Bank of Newman	01-29-94
IV-D-306	02-08-94	State Bank of Arthur	01-28-94
IV-D-307	02-08-94	Wayne-White Counties Electric Cooperative	01-31-94
IV-D-308	02-08-94	S. Greiner, State of Iowa, House of Representatives	02-02-94
IV-D-309	02-16-94	Farmers State Bank of Madelia	02-09-94
IV-D-310	02-16-94	Texas Petrochemicals Corporation	02-09-94
IV-D-311	02-16-94	Hynds, Rooks, Yohnka & Mattingly	02-01-94
IV-D-312	02-16-94	Iowa Corn Growers Association	02-16-94
IV-D-313	02-16-94	Oxygenated Fuels Association, Inc.	02-14-94

DOCKET: A-93-49

CATEGORY: IV-D

Correspondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-314	02-16-94	ARCO Chemical Company (corrected version)	02-15-94
IV-D-315	Ja-Fe-94	Letters from private citizens (7250+)	Ja-Fe-94
IV-D-316	Ja-Fe-94	Comment cards from private citizens (4300+)	Ja-Fe-94
IV-D-317	Ja-Fe-94	Comment cards from private citizens (650+)	Ja-Fe-94
IV-D-318	02-11-94	R. Durbin, et. al., Congress of the United States, Washington, D. C.	02-22-94
IV-D-319	02-22-94	T. M. Allen, New York State Department of Environmental Conservation	02-22-94
IV-D-320	02-22-94	M. P. Zanotti, Valero Refining Company	02-14-94
IV-D-321	Ja-Fe-94	Letters from private citizens (1500+)	Ja-Fe-94
IV-D-322	02-22-94	Letters from private citizens	01-04-94
IV-D-323	02-14-94	T. Urevig, Watonwan County Corn Growers Association	01-26-94
IV-D-324	02-14-94	G. Edwards, E.I. du Pont de Nemours and Company	02-09-94
IV-D-325	02-14-94	J. A. Schafer, State of California, Air Resources Board	02-14-94
IV-D-326	02-14-94	C. A. Moyer, Demetriou, Del Guercia, Springer & Moyer	02-14-94
IV-D-327	02-14-94	L. Pearce, State of Nebraska, Nebraska Energy Office	01-28-94
IV-D-328	02-14-94	M. Tatsutani, Natural Resources Defense Council	02-14-94
IV-D-329	02-14-94	L. Boswell, J. Dwyer, State of Iowa General Assembly	undated
IV-D-330	02-14-94	Governor E. B. Nelson, Nebraska, Governor's Ethanol Coalition	02-11-94

DOCKET: A-93-49CATEGORY: IV-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-331	02-14-94	Letters from Private Citizens (53)	Ja-Fe-94
IV-D-332	02-15-94	R. L. Lawson, National Coal Association	02-14-94
IV-D-333	02-14-94	A. B. Early, Sierra Club	02-14-94
IV-D-334	02-17-94	Board of Directors, et. al., Scotland County Farm Bureau	02-08-94
IV-D-335	02-17-94	Rep. J. Meyer, House of Representatives, State of Iowa	02-03-94
IV-D-336	02-17-94	J. H. Nelson, Exchange State Bank	02-03-94
IV-D-337	02-17-94	M. Larson, Northrup King Co.	02-13-94
IV-D-338	02-17-94	R. T. Columbus, Collier, Shannon, Rill & Scott, submitting comments on behalf of The Society of Independent Gasoline Marketers of America	02-14-94
IV-D-339	02-22-94	W. B. Black, State of Illinois, House of Representatives	02-07-94
IV-D-340	02-22-94	R. E. Colbert, Weldon State Bank & Trust	02-08-94
IV-D-341	02-22-94	Nebraska Corn Development Utilization And Marketing Board	undated
IV-D-342	03-08-94	F. R. Anderson, Cadwalader, Wickersham & Taft	03-04-94
IV-D-343	03-10-94	D. Rutherford, State Rep., Illinois	undated
IV-D-344	03-10-94	L. W. Hicks, State Rep., Illinois	02-10-94
IV-D-345	03-17-94	J. Redden, Mayfield-Graves County Emergency Planning Committee	02-14-94
IV-D-346	03-02-94	L. Gordon, Gordon Implement Co.	02-17-94
IV-D-347	02-24-94	Letters from Private Citizens (49)	Ja-Fe-94
IV-D-348	02-24-94	Letters from Private Citizens (70)	Ja-Fe-94

DOCKET: A-93-49CATEGORY: IV-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-349	02-15-94	Letter from Chris Dunkel (Private Citizen)	undated
IV-D-350	02-22-94	Letters from Private Citizens (2)	Ja-Fe-94
IV-D-351	03-15-94	Letters from Private Citizens (13)	Fe-94
IV-D-352	03-29-94	Letters from Private Citizens (38)	undated
IV-D-353	03-29-94	Letters from Private Citizens (43)	Ja-94
IV-D-354	03-29-94	Letters from Private Citizens (17)	Ja-94
IV-D-355	03-29-94	Letters from Private Citizens (27)	Fe-94
IV-D-356	03-29-94	Letters from Private Citizens (65)	Fe-94
IV-D-357	03-29-94	Letters from Private Citizens (15)	Ja-Fe-Ma-94
IV-D-358	03-18-94	T. J. Homer, Illinois House of Representatives	03-11-94
IV-D-359	03-15-94	V. Demuzio, Illinois State Senate	02-25-94
IV-D-360	03-23-94	Governor Ann Richards, Texas	12-23-93
IV-D-361	03-23-94	Governor Terry E. Branstad, Iowa	12-30-93
IV-D-362	03-23-94	Senator Mike Lybyer, Missouri Senate	02-11-94
IV-D-363	03-23-94	Minnesota Corn Growers Association	02-11-94
IV-D-364	03-23-94	Ohio Corn Growers Association	none
IV-D-365	03-23-94	Governor David Walters, Oklahoma	12-06-94
IV-D-366	03-23-94	Conoco, Inc.	02-11-94
IV-D-367	03-23-94	Total Petroleum, Inc.	02-14-94
IV-D-368	03-23-94	Amoco Oil Company	02-25-94
IV-D-369	03-23-94	St. Joseph Area Chamber of Commerce	02-11-94
IV-D-370	03-23-94	E. I. du Pont de Nemours and Company	02-09-94

DOCKET: A-93-49CATEGORY: IV-DCorrespondence Received from Persons Outside the Agency

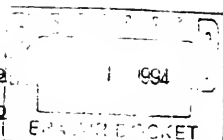
<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-371	03-23-94	California Air Resource Board	02-14-94
IV-D-372	03-23-94	Secretary of Transportation	02-14-94
IV-D-373	03-23-94	Secretary of Transportation - Clarification	03-04-94
IV-D-374	03-23-94	Letters from Private Citizens (46)	Ja-Fe-94
IV-D-375	03-29-94	Ralph Dunn, Illinois State Senate	02-14-94
IV-D-376	03-29-94	George P. Shadid, Illinois State Senate	02-25-94
IV-D-377	03-29-94	Department of Transportation (Brian J. Smith)	03-04-94
IV-D-378	03-29-94	United States Senators, Senators Carol-Mosley-Braun, et. al.	03-10-94
IV-D-379	03-29-94	Women Involved in Farm Economics	03-07-94
IV-D-380	03-29-94	Mississippi Corn Growers Association	02-21-94
IV-D-381	03-29-94	Central Illinois Public Service Company	undated
IV-D-382	03-29-94	Letters from Private Citizens (16)	Fe-94
IV-D-383	03-31-94	Letters from Private Citizens (18)	Fe-94
IV-D-384	03-15-94	J. J. Dollinger, private citizen	02-11-94
IV-D-385	03-31-94	Letters from Private Citizens (42)	Ja-Fe-Ma-94
IV-D-386	03-31-94	Letters from Private Citizens (17)	Fe-Ma-94
IV-D-387	03-31-94	Hancock County Economic Development Association	02-07-94
IV-D-388	03-31-94	WIFE Women Involved in Farm Economics (Press Release)	03-10-94
IV-D-389	03-31-94	T. Sieben, Illinois State Senate	02-08-94
IV-D-390	03-31-94	Illinois Farmers Union	02-24-94
IV-D-391	04-06-94	Amoco Oil Company	02-25-94

DOCKET: A-93-49CATEGORY: IV-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTER OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-392	04-12-94	Sonnenschein Nath & Rosenthal for Illinois Farm Bureau	03-25-94
IV-D-393	4/4-4/13	Letters from Private Citizens (8)	April-94
IV-D-394	04-26-94	B. McNutt, Office of Energy Demand Policy, U.S. Department of Energy	03-11-94
IV-D-395	02-17-94	D. R. Kleckner, American Farm Bureau Federation	02-14-94
IV-D-396	05-03-94	S. M. Frank and R. Patrick, Sonnenschein Nath & Rosenthal, submitting on behalf of the Illinois and Ohio Farm Bureaus	03-25-94
IV-D-397	05-03-94	FPC-1: UHI Corporation	04-06-94
IV-D-398	05-03-94	Bearings, Inc.	04-06-94
IV-D-399	05-03-94	A. W. Chesterton Co.	04-06-94
IV-D-400	05-03-94	R. Zwach, et al, Board of Redwood County Commissioners	undated
IV-D-401	05-03-94	Letters from private citizens (30)	various
IV-D-402	4/25-5/6	Letters from private citizens (36)	various
IV-D-403	05-09-94	B. Hannon and B. Wade, Methanex	undated
IV-D-404	05-04-94	D. R. Lund, Lund Implement Co.	04-30-94
IV-D-405	05-09-94	T. Deal, American Petroleum Institute	05-05-94
IV-D-406	05-09-94	L. Larson and J. Larson, North Star Sales	05-01-94
IV-D-407	05-11-94	D. T. Deal, American Petroleum Institute	05-11-94
IV-D-408	2/16-5/11	Letters from private citizens (83)	various
IV-D-409	05-20-94	R. Greco, American Petroleum Institute	05-02-94
IV-D-410	05-20-94	McJunkin Corporation	04-06-94
IV-D-411	05-20-94	M. K. Booth, Speciality Service Products	04-22-94

DOCKET: A-93-49CATEGORY: IV-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTER OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-412	05-20-94	Dr. B. W. Dingus et al., Greater Lawrence County Area	04-20-94
IV-D-413	05-20-94	S. Harvey et al., Harveys Inc.	04-27-94
IV-D-414	05-20-94	L. Colker et al., W. VA. Electric Supply Company	04-27-94
IV-D-415	05-20-94	B. J. Vollrath et al., Scioto Valve & Fitting Co.	04-27-94
IV-D-416	05-20-94	M. F. Stephens, The Elk Horn Coal Corporation	04-26-94
IV-D-417	05-20-94	D. G. Vitter, Phillips Supply Co.	04-06-94
IV-D-418	05-20-94	U. S. Department of Energy	05-13-94
IV-D-419	05-20-94	Letters from Private Citizens (14)	Various
IV-D-420	05-31-94	W. J. Piel, Arco Chemical Company	01-31-94
IV-D-421	05-31-94	D. M. Cochran, Iowa Department of Agriculture and Land Stewardship	05-02-94
IV-D-422	05-31-94	Governor Terry E. Branstad, Office of the Governor, Iowa	04-21-94
IV-D-423	05-31-94	Governor Jim Guy Tucker, Office of the Governor, State of Arkansas	04-12-94
IV-D-424	05-31-94	American Stainless & Supply Inc.	04-06-94
IV-D-425	05-31-94	Governor Walter D. Miller, South Dakota	05-04-94
IV-D-426	05-31-94	Testimony of Mary Nichols, Assistant Administrator, EPA	05-12-94
IV-D-427	05-31-94	Testimony of Senator Malcolm Wallop, Committee on Energy and Natural Resources	05-12-94
IV-D-428	05-31-94	Testimony of John A. Riggs, Dep. Assistant Secretary, U.S. DOE	05-12-94

DOCKET: A-93-49CATEGORY: IV-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-429	05-31-94	Testimony of Senator Bill Bradley, New Jersey	05-12-94
IV-D-430	05-31-94	Testimony of Linda G. Stuntz, Oxygenated Fuels Association	05-12-94
IV-D-431	05-31-94	Testimony of Eric Vaughn, Renewable Fuels Association	05-12-94
IV-D-432	05-31-94	Testimony of Steven R. Berlin, CITGO Petroleum Corp.	05-12-94
IV-D-433	05-31-94	Testimony of Robert J. McCool, American Petroleum Institute	05-12-94
IV-D-434	05-31-94	Testimony of A. Blakeman Early, Sierra Club	05-12-94
IV-D-435	05-31-94	Testimony of Michael J. Bradley, Northeast States for Coordinated Air Use Management (NESCAUM)	05-12-94
IV-D-436	05-31-94	Testimony of David Morris, Institute for Local Self-Reliance	05-12-94
IV-D-437	05-31-94	Testimony of Thomas A. Daschle	05-12-94
IV-D-438	05-31-94	Testimony of Senator Charles Grassley, Iowa	05-12-94
IV-D-439	05-31-94	Testimony of Congressman Thomas W. Ewing	05-12-94
IV-D-440	05-31-94	Testimony of the Highway Users Federation	05-12-94
IV-D-441	05-31-94	Testimony of the National Petroleum Refiners Association	05-12-94
IV-D-442	05-31-94	Testimony of the Rocky Mountain Institute	06-20-85
IV-D-443	5/13-5/31	Letters from Private citizens (44)	various
IV-D-444	06-14-94	M. Singh, Argonne National Laboratory, Analysis Memorandum: Energy Requirements and CO ₂ -Equivalent Emissions of RFG	06-06-94

SEARCHED DOCKET

DOCKET: A-93-49

CATEGORY: IV-D

Correspondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-445	06-14-94	K. Stork, Argonne National Laboratory, Analysis Memorandum: The Impact of the Proposal on Ethanol Availability for use as an Oxygenate in RFG, Oxygenated Gasoline and Gasohol	06-06-94
IV-D-446	06-23-94	C. S. Moore, Recreation Vehicle Indiana Council.	05-03-94
IV-D-447	06-23-94	J. DeSutter, Grundy County Farm Bureau	05-23-94
IV-D-448	06-23-94	J. Engler, governor, state of Michigan	05-02-94
IV-D-449	06-23-94	G. G. Moore Huntington Steel	04-25-94
IV-D-450	06-23-94	C. F. Drown, JABO Supplu Corporation	04-26-94
IV-D-451	06-23-94	Motion Industries, Inc.	04-06-94
IV-D-452	06-23-94	D. M. Cochran, Iowa Department of Agriculture and Land Stewardship	05-02-94
IV-D-453	06-23-94	C. D. Amos, St. Louis Regional Clean Cities Program	04-29-94
IV-D-454	06-23-94	B. N. B. Hannon, Methanex Corporation	06-23-94
IV-D-455	06-23-94	B. Roberts, governor, state of Oregon	05-06-94
IV-D-456	06-23-94	S. Vogel, Department of Agriculture, state of North Dakota	05-09-94
IV-D-457	06-23-94	Iowa Corn Growers Association	
IV-D-458	06-23-94	T. G. Thompson, governor, state of Wisconsin	05-09-94
IV-D-459	06-23-94	T. Irvin, Georgia Department of Agriculture	05-04-94
IV-D-460	06-23-94	R. Harris et al., Governor's Ethanol Coalition, National Corn Growers Association, Renewable Fuels Association, Clean Fuels Development Coalition, American Farm Bureau Federation	05-24-94
IV-D-461	06-23-94	W. M. Rosenbury, Terra Industries, Inc.	05-26-94

DOCKET: A-93-49ENVIRONMENTALCATEGORY: IV-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-462	06-23-94	B. C. Jones, governor, Commonwealth of Kentucky	04-25-94
IV-D-463	06-23-94	A. R. Klann, Arkenol Inc.	06-07-94
IV-D-464	06-23-94	E. T. Schafer, governor, state of North Dakota	05-20-94
IV-D-465	06-23-94	T. Barlow, Kentucky Corn Growers Association	04-11-94
IV-D-466	06-23-94	Letters from private citizens (105)	various
IV-D-467	06-23-94	Comment cards from private citizens (29)	none
IV-D-468	06-23-94	L. G. Antle, Department of the Army, Corps of Engineers, Water Resources Support Center, to L. Wyborny, EPA	03-23-94
IV-D-469	06-23-94	C. Quinn, Port of New Orleans, to L. Wyborny EPA	06-02-94
IV-D-470	06-23-94	R. Groschen, Minnesota Department of Agriculture, to L. Wyborny, EPA	05-24-94
IV-D-471	06-23-94	B. Dunner, to L. Wyborny, EPA	03-07-94
IV-D-472	06-23-94	E. J. Thom, Arco Chemical Company	04-18-94
IV-D-473	06-30-94	J. M. Cleary, TOSCO Refining Company, to C. Browner, EPA	03-21-94
IV-D-474	06-24-94	T. Moore, Randolph County Board of Commissioners, to EPA	06-02-94
IV-D-475	06-24-94	E. R. Crow, Randolph County -Dept. of Econ. Development, to EPA	06-02-94
IV-D-476	06-30-94	G. Schremp, California Energy Commission, to A. Cooney, EPA	04-07-94
IV-D-477	06-24-94	J. R. Satrum, Georgia Gulf Corporation, to EPA	06-17-94
IV-D-478	06-30-94	L.L. Boswell, State of Iowa General Assembly, to EPA	06-30-94

DOCKET: A-93-49CATEGORY: IV-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-479	06-30-94	L. J. Wilson, State of Iowa, Department of Natural Resources, to C. Browner, EPA	02-04-94
IV-D-480	06-30-94	J. Engler, Governor of Michigan, to C. Browner, EPA	02-09-94
IV-D-481	06-30-94	S.M. Frank and R. W. Patrick, Sonnenschein Rath & Rosenthal, to EPA Air Docket	03-25-94
IV-D-482	06-30-94	D. Heinrich, Kane County Farm Bureau, to EPA Air Docket	02-11-94
IV-D-483	06-30-94	A. D. Rossi, Illinois House of Representatives, to C. Browner, EPA	01-21-94
IV-D-484	06-30-94	C. L. Dunlap, Crown Central Petroleum Corp., to C. Browner, EPA	02-08-94
IV-D-485	06-30-94	W. J. Piel, ARCO Chemical Company, to EPA Air Docket	01-31-94
IV-D-486	06-30-94	D. Mark, INdependent Refiner/Marketeters Association, to EPA	01-28-94
IV-D-487	06-30-94	G. Edwards, E.I. duPont de Nemours and Co., to M. Nichols, EPA	02-09-94
IV-D-488	various	Comments from private citizens (62 comment cards)	various
IV-D-489	various	Comments from private citizens (23 letters)	various
IV-D-490	07-06-94	Air Systems, to C. Browner, EPA	04-06-94
IV-D-491	07-06-94	Red Star, to C. Browner, EPA	04-06-94
IV-D-492	07-06-94	Alltech Biotechnology Center, to C. Browner EPA	07-06-94
IV-D-493	07-06-94	R. R. Casey and G. R. Pirtle et al, Ohio Farm Bureau	undated
IV-D-494	07-06-94	M. E. Kovack, Medina County Auditor, to C. Browner	06-05-94

DOCKET: A-93-49CATEGORY: IV-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-495	07-06-94	N. Cope, Coulmbiana County Farm Bureau, Inc, to C. Browner	06-02-94
IV-D-496	07-06-94	E. Smith, Hocking County Farm Bureau, Inc.,	05-27-94
IV-D-497	07-06-94	L. Swenson, National Farmers Union, to C. C. Browner, EPA	06-06-94
IV-D-498	07-06-94	R. W. King, Sun Company, Inc., to M. Nic- hols, EPA	05-31-94
IV-D-499	07-06-94	T. E. Branstad, Office of the Governor, Iowa, to C. Browner, EPA	06-01-94
IV-D-500	07-06-94	B. G. Gower, Lyondell Petrochemical Co., to C. Browner, EPA	05-31-94
IV-D-501	07-06-94	D. M. Cochran, Iowa Department of Agri- culture and Land Stewardship, to C. Browner, EPA	05-27-94
IV-D-502	07-06-94	G. Carruthers, The Advancement of Sound Science Coalition, to EPA Air Docket	06-09-94
IV-D-503	07-06-94	D. L. Swalm, Texas Olefins Company, to C. Browner, EPA	06-02-94
IV-D-504	07-06-94	R. Vesper, Ohio House of Representatives, to C. Browner, EPA	06-08-94
IV-D-505	07-06-94	J. E. Haring, Pasadena Research Institute, to C. Browner, EPA	05-31-94
IV-D-506	07-06-94	D. W. Lamb, UNOCAL Petroleum & Chemicals to M. Nichols, EPA	06-23-94
IV-D-507	07-06-94	E. Bayh, Office of the Governor, Indiana, to M. Nichols, EPA	06-01-94
IV-D-508	07-06-94	J. Brewer, American Agriculture Movement, Inc., to EPA Air Docket	06-10-94
IV-D-509	07-06-94	K. M. Coombs, Caribbean Methanol Company, Ltd, to C. Browner, EPA	06-07-97

DOCKET: A-93-49CATEGORY: IV-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-510	07-06-94	D. R. Kleckner, American Farm Bureau Fed., to, C. Browner, EPA	06-16-94
IV-D-511	07-06-94	P. Meade, the New England Council, to C. Browner, EPA	06-10-94
IV-D-512	07-06-94	A.S. Beharry, Trinidad and Tobago Ltd., to C. Browner, EPA	06-13-94
IV-D-513	07-06-94	R. F. Suthoff, et al, Enzyme Development Corporation, to EPA Air Docket	05-18-94
IV-D-514	07-06-94	K. Ryan, Ryan Trucking, C. Browner, EPA	05-20-94
IV-D-515	07-06-94	R. B. Gwynn, Agricultural Minerals and Chem- icals Inc., to C. Browner, EPA	05-26-94
IV-D-516	07-06-94	C. E. Fields, et al., Harris Calorific Sales Co., Inc., to C. Browner, EPA	04-06-94
IV-D-517	07-06-94	H. Smith, Hocking County Farm Bureau, Inc., to C. Browner, EPA	05-27-94
IV-D-518	07-06-94	G. Voinovich, Office of the Governor, State of Ohio, to C. Browner, EPA	06-01-94
IV-D-519	07-06-94	Letters and comment cards from private citizens (220 estimated)	various
IV-D-520	07-07-94	J. Nussle, et al., Congress of the United States, House of Representatives, to W. Clinton	05-27-94
IV-D-521	07-07-94	C. E Grassley, et al., United States Senate, to W. Clinton/C. Browner, EPA	05-12-94
IV-D-522	07-07-94	T. Harkin, et al., United States Senate, to C. Browner, EPA	05-23-94
IV-D-523	07-11-94	R. Durbin et al., Congress of the United States, to C. Browner, EPA	02-11-94
IV-D-524	07-11-94	Rep. D. Bereuter, Congress of the United States, to EPA Air Docket	02-14-94

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<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-525	07-11-94	Rep. F. Grandy, Congress of the United States, to EPA Air Docket	02-14-94
IV-D-526	07-11-94	Sen. P. Gramm, United States Senate, to C. Browner, EPA	02-15-94
IV-D-527	07-11-94	Sen. T. Cochran, United States Senate, to C. Browner, EPA	02-17-94
IV-D-528	07-11-94	Sen S. Thurmond, United States Senate, to C. Browner, EPA	03-01-94
IV-D-529	07-11-94	M. Wallop et al., United States Senate, to C. Browner, EPA	03-02-94
IV-D-530	07-11-94	Rep. D. Bereuter, Congress of the United States, to C. Browner, EPA	03-04-94
IV-D-531	07-11-94	Rep. J. Dickey, Congress of the United States, to C. Browner, EPA	03-10-94
IV-D-532	07-11-94	Rep. J. Brooks, Congress of the United States, to C. Browner, EPA	03-11-94
IV-D-533	07-11-94	Rep. R. Wyden, Congress of the United States, to C. Browner, EPA	03-21-94
IV-D-534	07-11-94	Rep. J. Fields, Congress of the United States, to C. Browner, EPA	03-25-94
IV-D-535	07-11-94	Rep. S. Hoyer, Congress of the United States, to C. Browner, EPA	03-28-94
IV-D-536	07-11-94	Rep. M. Collins, U.S. House of Representatives, to C. Browner, EPA	03-29-94
IV-D-537	07-11-94	Rep. J. Dingell, U.S. House of Representatives, to C. Browner, EPA	04-21-94
IV-D-538	07-11-94	Rep. J. Nussle et al., Congress of the United States, to C. Browner, EPA	05-06-94
IV-D-539	07-11-94	Rep. Michel et al., Congress of the United States, to C. Browner, EPA	05-27-94

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<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-540	07-11-94	Rep. D. Gallo, Congress of the United States, to C. Browner, EPA	06-29-94
IV-D-541	07-11-94	D.W. Lamb, Unocal Petroleum Products & Chemicals Division, to M. Nichols, EPA	06-23-94
IV-D-542	07-11-94	R. J. McCool, Mobil Oil Corporation, to M. Daily, Chicago / cc C. Browner, EPA	06-20-94
IV-D-543	07-11-94	D.J. and M.M. Amberg, private citizens, to President Clinton	04-01-94
IV-D-544	07-11-94	R. Rommey, candidate for U. S. Senate, to C. Browner, EPA	undated
IV-D-545	07-11-94	B. M. Joyce, Terra Industries, Inc., to C. Browner, EPA	05-23-94
IV-D-546	07-11-94	Rep. A. G. Eshoo, Congress of the United States, to C. Browner, EPA	06-14-94
IV-D-547	07-19-94	N. Brummond, Thurston County Farm Bureau, to C. Browner, EPA	07-19-94
IV-D-548	07-19-94	C. J. DiBona, American Petroleum Institute to EPA	06-21-94
IV-D-549	07-19-94	B.N.B. Hannon, Methanex Corporation, to EPA Air Docket	05-20-94
IV-D-550	7-19-94	Comments from private citizens (14) to EPA	various

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<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-106	01-26-94	J. E. Nugent, Railroad Commission of Texas, to EPA Air Docket.	01-13-94
IV-D-107	01-25-94	T. R. McMillen, TAMPAM Farms, Inc., to EPA Air Docket.	01-18-94
IV-D-108	01-25-94	D. R. Johnson, Growmark, Inc., to EPA Air Docket.	01-19-94
IV-D-109	01-25-94	J. W. Spradlin, Piatt County Service Co., to EPA Air Docket.	01-19-94
IV-D-110	01-25-94	G. Ludwig, LaSalle County Farm Supply Co., to EPA Air Docket.	01-19-94
IV-D-111	01-26-94	J. Kelly, Gardner Sales & Service, Inc., to EPA Air Docket.	undated
IV-D-112	01-25-94	12 letters, corn growers, to EPA Air Docket	undated
IV-D-113	01-25-94	12 letters, residents not involved in corn growing, to EPA Air Docket.	undated
IV-D-114	01-24-94	89 letters, private citizens, to EPA Air Docket.	varied 01-94
IV-D-115	01-24-94	167 letters, private citizens, to EPA Air Docket.	varied 01-94
IV-D-116	01-24-94	150 comment cards, Iowa corn farmers, to EPA Air Docket.	undated
IV-D-117	01-24-94	29 comment cards, private citizens, to EPA Air Docket.	undated
IV-D-118	01-28-94	69 comment cards, private citizens, to EPA Air Docket.	undated
IV-D-119	01-28-94	138 letters, private citizens, to EPA Air docket.	varied 01-94
IV-D-120	01-28-94	P. M. Brown, National Bank of Petersburg, to EPA Air Docket.	01-24-94
IV-D-121	01-27-94	R. Higgins, McLean County Service Company,	01-18-94

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<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTER OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
		to EPA Air Docket.	
IV-D-122	01-27-94	H. Stimmel, Sibley Grain Company, to EPA Docket.	01-17-94
IV-D-123	01-27-94	K. Meier, Stephenson Service Company, to EPA Air Docket.	01-19-94
IV-D-124	01-27-94	J. F. Nelson, C. & J. Service Company, to EPA Air Docket.	01-21-94
IV-D-125	01-27-94	J. Plambeck, Growmark, to EPA Air Docket.	01-24-94
IV-D-126	01-28-94	Missouri Corn Growers Association and Corn Merchandising Council.	undated
IV-D-127	01-28-94	B. Webber, Goldman Associates, to EPA Air Docket.	01-24-94
IV-D-128	01-28-94	J. Bessen, Livingston Service Co., to EPA Air Docket.	01-17-94
IV-D-129	01-28-94	R. Miller, Miller Farms, to EPA Air Docket.	01-23-94
IV-D-130	01-28-94	R. Dickhut, Dickhut Farming, to EPA Air Docket.	01-22-94
IV-D-131	01-28-94	K. Sandberg, Haug Implement Co., to EPA Air Docket.	01-26-94
IV-D-132	01-28-94	D. Teiger, Haug Implement Co., to EPA Air Docket.	01-26-94
IV-D-133	01-28-94	J. Kriegel, Cominco Fertilizers., to EPA Air Docket.	undated
IV-D-134	01-31-94	S. M. Pirsig, Greater Rural Opportunities Working (GROW)	01-28-94
IV-D-135	01-31-94	P. Edwards, Ashland Farmers Elevator Co.	01-27-94
IV-D-136	01-31-94	S. Farr, Farmers & Merchants State Bank	01-26-94
IV-D-137	01-31-94	D. D. Lynch, Saint Peter Area Chamber of Commerce	01-28-94

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<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-138	01-31-94	L. Harms, First State Bank of Red Bud	01-21-94
IV-D-139	01-31-94	R. J. Kennedy, Carroll County Rural Electric Membership Corp.	01-24-94
IV-D-140	01-31-94	D. L. Mundahl, City of Winnebago	01-26-94
IV-D-141	01-31-94	H. A. Davis, Petefish, Skiles & Co. Bank	01-20-94
IV-D-142	02-02-94	Letters from private citizens	01-94-94
IV-D-143	02-02-94	Letter from Hon. J. Leach, Congress of United States	01-24-94
IV-D-144	02-02-94	Letter from Mr. D. Hintzman, private citizen	01-15-94
IV-D-145	02-02-94	Letter from J. B. Barlow, Bureau County Farm Bureau	01-21-94
IV-D-146	02-02-94	Letter from Gov. Voinovich, State of Ohio	01-20-94
IV-D-147	02-02-94	L. A. Heacock, National Bank of Fairbury	01-21-94
IV-D-148	02-02-94	E. F. Martin, Amcore Bank	01-25-94
IV-D-149	02-02-94	R. W. Tanton, Amcore Bank	01-25-94
IV-D-150	02-03-94	S. W. Becker, STAPPA/ALAPCO	01-31-94
IV-D-151	02-04-94	R. P. Donaldson, Rayovac Corporation	02-03-94
IV-D-152	02-04-94	T. D. Cashman, Charter Bank	02-04-94
IV-D-153	02-04-94	J. G. Frevert, The American Society of Farm Managers and Rural Appraisers, Inc.	01-31-94
IV-D-154	02-04-94	D. Reitz et al, Randolph County Board of Commissioners	01-31-94
IV-D-155	02-04-94	D. R. Lovett, Dixon Industrial Development Association	01-25-94
IV-D-156	02-04-94	D. D. Newton, Elliott State Bank	01-31-94

DOCKET: A-93-49CATEGORY: IV-DCorrespondence Received from Persons Outside the Agency

<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-157	02-04-94	D. J. Hassman, First National Bank of O'Neill	01-28-94
IV-D-158	02-04-94	J. L. Seed, Jackson-Union Counties Regional Port District	02-04-94
IV-D-159	02-07-94	S. W. Kiker, Georgia Gulf Corporation	02-04-94
IV-D-160	02-07-94	D. Legner, First State Bank of Princeton	01-11-94
IV-D-161	02-07-94	R. B. Fell, Global Octanes Corporation	01-07-94
IV-D-162	02-07-94	D. G. Briggs, Louisiana Independent Oil & Gas Association	01-28-94
IV-D-163	02-07-94	D. Hirsch, County Clerk and Recorder, Perry County, IL	02-01-94
IV-D-164	02-07-94	B. Millard, The First National Bank, Arenzville, IL	02-01-94
IV-D-165	02-07-94	C.W. Troxel, The City of Clinton (IL)	01-12-94
IV-D-166	02-07-94	R. Taylor, The Senate, State of Iowa	02-02-94
IV-D-167	02-07-94	S. A. Smaby, Enron Clean Fuels Company	02-04-94
IV-D-168	02-07-94	J. L. Seed, Jackson County Housing Authority	01-27-94
IV-D-169	02-09-94	J. H. Adler, Competitive Enterprise Institutes (CEI)	02-09-94
IV-D-170	02-10-94	K. D. Hartje, Midwest Power	02-08-94
IV-D-171	02-10-94	S. A. Leahy, Council of Great Lakes	undated
IV-D-172	02-14-94	T. D. Emero, Beaver Alternative Energy, Inc	02-11-94
IV-D-173	02-14-94	G. Grey, Western States Petroleum Association (WSPA)	02-11-94
IV-D-174	02-14-94	M. J. Bradley, Northeast States For Coordinated Air Use Management (NESCAUM)	02-11-94

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<u>NUMBER</u>	<u>DATE REC'D IN DOCKET</u>	<u>COMMENTER OR ADDRESSEE, TITLE, DESCRIPTION</u>	<u>DATE OF DOCUMENT</u>
IV-D-175	02-14-94	T. W. Geiger, Cargill Ethanol	02-10-94
IV-D-176	02-14-94	Indiana Corn Growers Association	02-14-94
IV-D-177	02-14-94	W. E. Frohboese, Morris AG-Energy Company Inc.	02-11-94
IV-D-178	02-14-94	R. C. Bruton, Mitchell Energy & Development Corp.	02-11-94
IV-D-179	02-14-94	R. B. Vind, Western Petroleum Importers Inc	02-11-94
IV-D-180	02-14-94	C. L. Green, Ultramar Inc.	02-11-94
IV-D-181	02-14-94	K. H. Bullerdick, Giant Industries, Inc.	02-11-94
IV-D-182	02-14-94	A. Farmer, Tosco Refining Company	02-11-94
IV-D-183	02-14-94	D. W. Lamb, Unocal Petroleum & Chemical	02-11-94
IV-D-184	02-14-94	D. B. Smith, Chevron U.S.A. Products Company	02-11-94
IV-D-185	02-14-94	P. N. Merrill, American Biofuels Asso.	02-14-94
IV-D-186	02-14-94	Sunthetic Energy of America	02-14-94
IV-D-187	02-14-94	A. J. Smith III, Brightstar Technology Inc	02-14-94
IV-D-188	02-14-94	J. C. Pruitt, Texaco Inc.	02-14-94
IV-D-189	02-14-94	The National Corn Growers Association	01-14-94
IV-D-190	02-14-94	R. Warfield, Illinois Farm Bureau	02-14-94
IV-D-191	02-14-94	U. R. Sternfels, National Petroleum Refiners Association	02-14-94
IV-D-192	02-08-94	T. E. Fevold, Hertz Farm Management Inc.	02-03-94
IV-D-193	02-08-94	L. L. Pohlman, Hertz Farm Management Inc.	02-03-94
IV-D-194	02-08-94	F. M. Cushing, The Coastal Corporation	02-14-94

J.J-5. Updated
 index Pages, Nothing has changed
 Thanks, Chuck

DOCKET: A-93-49

CATEGORY: IV-D

Correspondence Received from Persons Outside the Agency

NUMBER	DATE REC'D IN DOCKET	COMMENTS OR ADDRESSEE, TITLE, DESCRIPTION	DATE OF DOCUMENT
IV-D-195	02-08-94	L. Wu, Energy & Environmental Research Center	02-11-94
IV-D-196	02-14-94	W. Alton Jones Foundation on behalf of the Environmental Defense Fund	02-14-94
IV-D-197	02-14-94	H. V. Cowser, Banterra Bank	02-14-94
IV-D-198	02-14-94	D. A. Durante, Clean Fuels Development Coalition	02-14-94
IV-D-199	02-14-94	J. T. McMillan, Exxon Company, U.S.A.	02-14-94
IV-D-200	02-14-94	Ad Hoc Ethanol Committee	02-14-94
IV-D-201	02-14-94	M. J. Hanshaw, CITGO Petroleum Corporation	02-11-94
IV-D-202	02-14-94	J. J. Huber, Petroleum Marketers Association of America	02-05-94
IV-D-203	02-14-94	W. F. O'Keefe, American Petroleum Institute	02-14-94
IV-D-204	02-14-94	B. Wade, The Methanex Corporation	02-14-94
IV-D-205	02-14-94	M. Espy, Department of Agriculture	02-11-94
IV-D-206	02-14-94	G. D. Johnston, Cenex/Land O' Lakes AG Services	02-07-94
IV-D-207	02-14-94	Kentucky Farm Bureau Federation	02-14-94
IV-D-208	02-15-94	Whatcom County Sheriff's Office (Docket Error; Comment for A-91-73, 4-28-94)	02-14-94
IV-D-209	02-15-94	Lawn Hill Cooperative (Docket Error; Comment for A-91-73, 4-28-94)	02-14-94
IV-D-210	02-14-94	Kentucky Corn Growers Association; Kentucky Small Grain Growers Association	02-14-94
IV-D-211	02-14-94	Marathon Oil Company	02-11-94
IV-D-212	02-14-94	Pennzoil Company	02-14-94
IV-D-213	02-14-94	Phillips 66 Company	02-14-94
IV-D-214	02-14-94	Texas Corn Growers Association	02-14-94

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IV-D-215	02-14-94	National Renewable Energy Laboratory	01-14-94
IV-D-216	02-14-94	City of Chicago	02-10-94
IV-D-217	02-14-94	Natural Resources Defense Council	02-14-94
IV-D-218	02-14-94	Ethanol Marketing and Management Services	02-14-94
IV-D-219	02-14-94	Koch Refining Company	02-11-94
IV-D-220	02-14-94	Fina Oil and Chemical Company	02-11-94
IV-D-221	02-14-94	National Association of State Departments of Agriculture (NASDA)	02-14-94
IV-D-222	02-14-94	Mobil Oil Corporation	02-11-94
IV-D-223	02-14-94	Beaumont Methanol Corporation (BMC)	02-11-94
IV-D-224	02-14-94	American Methanol Institute	02-14-94
IV-D-225	02-15-94	National Association of Manufacturers	02-14-94
IV-D-226	02-15-94	United States Business & Industrial Council	undated
IV-D-227	02-15-94	Information Resources, Inc. (IRI)	02-15-94
IV-D-228	02-14-94	General Motors, Environmental and Energy Staff	02-14-94
IV-D-229	02-14-94	Maple Lawn Farms	02-14-94
IV-D-230	02-14-94	Arkansas Farm Bureau Federation	02-14-94
IV-D-231	02-14-94	Ohio Farm Bureau Federation	02-10-94
IV-D-232	02-14-94	Michigan Farm Bureau	02-01-94
IV-D-233	02-10-94	Williamson County Farm Bureau	02-03-94
IV-D-234	02-14-94	Pike County Farm Bureau (3 letters)	02-07-94
IV-D-235	02-17-94	North Carolina Farm Bureau Federation	02-08-94
IV-D-236	02-14-94	Hertz Farm Management	02-03-94

Kevin Stork
Argonne National Laboratory
June 6, 1994

Analysis Memorandum: The Impact of the Renewable Oxygenate Proposal on Ethanol Availability For Use as an Oxygenate in RFG, Oxygenated Gasoline and Gasohol

Notation:

CG	Conventional gasoline
RFG	Reformulated gasoline
OG	Oxygenated gasoline for CO control
RFG/OG	RFG with 2.7% wt. oxygen (except in CA where oxygen is fixed at 2.0% year round)
gasohol	CG with 10% vol. ethanol

Introduction:

This is a revised analysis of the implications for ethanol supply and demand of the December 15, 1993, EPA renewable oxygenate proposal (ROS). If adopted, the ROS will effectively mandate the use of corn-based ethanol (or the ethanol-derived ether ETBE) as an oxygenate for 30% of the reformulated gasoline pool until such time as other renewable oxygenates are economically competitive.

The analysis is cast to represent possible situations at the beginning of the program in 1995, but may also be applicable to a mature program. It is not yet known whether the ROS, if adopted, will apply as early as 1995. In this analysis it is assumed that it will apply. This analysis also assumes that initially ETBE will be unavailable for use in the summer (taken to be five months, including approximately two weeks lead and lag time between seasons). Three seasonal cases are considered and credit trading is accommodated.

A 12-month case represents total demand for fuel ethanol in 1995. Though ETBE is not expected to be used extensively in 1995, the 12-month case represents the ethanol utilization rates which would result if it were possible to oxygenate year-round with renewables.

A 7-month case represents the use of the volume of ethanol required annually during a reasonable estimate of the length of the winter RFG season.¹ The winter season would be a split season during a calendar year. The first part of the season is assumed to run from January through April in this analysis. The second runs from October through December.

Finally, a 4-month, or "front-loaded", case represents a possible first-year scenario in which lack of experience with the program among refiners contributes to uncertainty in the markets for ethanol and renewable-oxygenate credits. The front-loaded case represents an extreme in monthly demand for ethanol which could arise as a result of refiners' attempts to bring their renewable oxygenate obligations into balance during the beginning of the bipartite winter season. While it is unlikely that all refiners would attempt to fulfill the requirement for renewable oxygenate use during the first part of the winter, individual refiners, particularly those outside of the ethanol producing regions, could attempt to satisfy the ROS requirement during the first part of the winter season to avoid being short credits later in the year.

The result of a front-loaded scenario is increased demand for ethanol in RFG destined for retail sale from January through April or, equivalently, increased demand for ethanol credits. In addition to a first-year scenario, the front-loaded case may also be a reasonable model of the mature program facing disruptions in the ethanol market.

Credit trading is analyzed by distinguishing between those states likely to be net credit sellers (called producer states) and net credit buyers (non-producer states). An analysis of the maximum generation and sale of credits follows the seasonal analysis.

Revisions to the original analysis:

The original analysis has been expanded to address comments from reviewers. Revisions based on the comments are as follows:

- Fuel demand has been estimated for 1995 by scaling the data used in the original analysis, FHWA 1992 gasoline and gasohol sales data. The scaling

¹ The winter season may be somewhat shorter in practice for some refiners. In particular, for Gulf Coast refiners serving markets in the northeast, seven months may be an overestimate of the useable winter season.

factor (4.80%) is the increase in gasoline demand over the period².

- The current analysis is based on an opt-in scenario currently considered likely rather than on the nine-city and full opt-in cases considered originally.³ A full opt-in case could still be considered to be the most extreme limit on analysis, though it has not been presented here (due to the other revisions in the analysis, the results of the original full opt-in case would not be appropriate for comparison with the current analysis). As in the original analysis, population serves as the measure of gasoline demand.
- The demand for fuel ethanol due to the oxygenated gasoline program for CO non-attainment areas has been included in this revision. According to EIA, about 30% of oxygenated gasoline for CO control (OG) is oxygenated using ethanol. This figure was applied to expected demand for OG in the analysis.
- Fuel ethanol production capacity has been adjusted to 85% of the nameplate capacity reported in the original analysis. The expected ethanol capacity, as in the original analysis, includes currently operable capacity and capacity under construction which should be available by the start of the program.⁴

Key Assumptions:

- 1992 motor fuel use patterns hold for future years. For example, a state which used 15% gasohol, 5% OG and 83% CG (where some of the gasohol serves as OG) in 1992, it is assumed that the same proportions would hold for subsequent years in the absence of RFG and the ROS.
- Seasonal variation in gasoline consumption was ignored.

² Mr. David Chien, of the U.S. Energy Information Administration, provided the data for the scaling factor from model runs for EIA's Annual Energy Outlook 1994.

³ Data on opt-in are from the list of Opt-Ins available from the EPA OMS computer bulletin board in January, 1994: A current list may be used for a subsequent revision of this report if it is significantly different.

⁴ Dr. John McClelland, of the U.S. Department of Agriculture, provided ethanol capacity data and interpretive assistance on ethanol capacity figures. From those data, it appears that approximately 6% additional ethanol capacity may be available from idle facilities which are too small to be competitive currently but which could be brought on-line by 1995 if the price of ethanol rises sufficiently. The results of this analysis indicate that the additional capacity would not change the outcome for the cases under which there is an insufficient supply of ethanol.

- Gasohol and OG account for total fuel ethanol use outside of the RFG program.⁵
- Ethanol is used to oxygenate 30% of OG absent the ROS.⁶
- Renewable oxygenate credits can not be carried over between different calendar years. Also, credits can not be accumulated prior to the beginning of manufacture of gasoline for retail sale in January, 1995.⁷
- Volume of fuel consumed is proportional to population (i.e., if 60% of a state's population is in a non-attainment area then 60% of its gasoline demand is assumed to be met with RFG and 40% with either conventional gasoline, oxygenated gasoline or gasohol according to proportions of CG, OG and gasohol in the remaining pool).
- Gasohol sales are evenly distributed within a state. Absent RFG, attainment areas and non-attainment areas are assumed to use gasohol in proportion to their populations.

Results:

Seasonal Analysis Results:

Table 1 summarizes the net national supply (demand) for fuel ethanol under two ethanol utilization scenarios for each of the seasonal cases. Net supply implies ethanol production capacity in excess of demand.

⁵ Gasohol and gasoline sales volume data were collected by the Federal Highway Administration (FHWA). The data for 1992 are the latest available from FHWA, which no longer collects gasohol data. These values understate actual gasohol use because they are based on tax revenue data. States which tax gasoline and gasohol at the same rate have commingled data.

⁶ The CAA-mandated use of oxygenates during the winter in thirty-nine CO non-attainment areas went into effect on November 1, 1992. That requirement (oxygen at 2.7% wt) can be met with gasohol (oxygen at 3.5% wt). At most, two months of the 1992 gasohol data include gasohol sold specifically to satisfy this mandate.

⁷ Credit generation for renewable oxygenate use will begin in 1994 when gasoline for January, 1995, delivery begins. However, the one-time credit roll over from calendar-year 1994 to 1995 is ignored.

Table 1.
Summary of Seasonal Results
(MM gal)

Utilization Period for Ethanol in RFG (Months)	Ethanol Production Capacity Over Period	Ethanol Required to Satisfy ROS ⁸	Ethanol Demand Outside of RFG Areas Over Period	Net Ethanol Supply (Demand) Over Period	Percentage Diversion EtOH From Non-RFG Pool Necessary to Satisfy ROS
12	1,368	705	949	(286)	30%
7	798	705	554	(461)	83%
4	456	705	316	(565)	> 100% ⁹

12-Month Analysis:

- On an annual basis, there will be demand for ethanol in excess of capacity over the period of 286 MM gal, given expected ethanol capacity and an unchanged level of ethanol demand in areas not using RFG.
- If demand for ethanol in the gasohol and OG markets is not met, there is excess supply of fuel ethanol of 663 MM gal.
- Meeting RFG demand requires a 30% reduction in use of ethanol for OG and gasohol during the period.

⁸ On a 12-month basis, 334 MM gal of ethanol is being used within RFG areas (without the RCS). This ethanol would apply towards the ROS.

⁹ Despite diversion of all ethanol from the gasohol and OG pools, there would be insufficient ethanol production capacity to meet the requirements of the ROS in this case. Approximately 55% additional ethanol capacity would be required to satisfy the ROS only over the period.

7-month Analysis:

- There will be demand for ethanol in excess of capacity over the period of 461 MM gal, given expected ethanol capacity and an unchanged level of ethanol demand in areas not using RFG.
- If demand for ethanol in the gasohol and OG markets is not met, there is excess supply of fuel ethanol of 93 MM gal.
- Meeting RFG demand requires an 83% reduction in use of ethanol for OG and gasohol during the period.

4-month Analysis:

- There will be demand for ethanol in excess of capacity over the period of 565 MM gal, given expected ethanol capacity and an unchanged level of ethanol demand in areas not using RFG.
- Even if demand for ethanol in the gasohol and OG markets is not met, there is excess demand for fuel ethanol of 249 MM gal.
- Meeting RFG demand requires the elimination of all use of ethanol for OG and gasohol during the period and an increase in expected production capacity of approximately 55%.

The 7-month seasonal case, which represents the likely longer-term operation of the ROS during Phase I of the RFG program, requires approximately 88% capacity utilization to satisfy the ROS alone.¹⁰ This suggests that a full-winter season would be sufficient to accommodate annual fuel ethanol demand under the ROS only if essentially all fuel ethanol which would otherwise be used in gasohol and OG is diverted to the RFG pool during the period.

If ethanol demand outside of areas requiring RFG (i.e., gasohol and OG) is to be met, demand during the 7-month period would be 1,259 MM gal. This is greater than the domestic production capacity for ethanol and so would require drawdown

¹⁰ Assuming the ethanol capacities have been adjusted properly (i.e., that 85% of nameplate is correct), average ethanol capacity utilization was 85% for Jan.-Apr., 1993, and 93% for Jan.-Mar., 1994.

of inventory. Ethanol inventory as reported by EIA¹¹ ranged from 75-120 MM gal during 1993. This suggests a working inventory of approximately 50 MM gal available for draw down. Meeting the demands due to both the ROS and the gasohol/OG markets would require inventory levels or ethanol production capacity to be increased in the future.

Regional Analysis Results (Credit Trading/Ethanol Movement):

Primary ethanol producing states are those PADD II states with at least 30 MM gal/year fuel ethanol capacity. These include: IL, IN, IA, KS, MN, NE, ND, OH and TN. Collectively, they contain more than 97% of existing ethanol capacity. These ethanol producer states are the most likely net credit sellers. The maximum use of credits is considered below to establish the minimum necessary level of additional, incremental ethanol movement.

Blending renewable oxygenates into more than 30% of RFG gallonage or at oxygen levels above 2.1% wt. (up to 3.5% maximum) generates credit for trading. Maximum credit generation was considered under the three seasonal scenarios by assuming 90% of the RFG consumed in ethanol producing regions to be oxygenated with ethanol to 3.5%.¹² For credit-trading analysis, the non-producer states (all RFG-consuming states which are not among the primary ethanol producers listed above) are assumed to use the minimum required level of ethanol in RFG and RFG/OG and to use no ethanol outside of the RFG pool. The results are summarized in Tables 2 and 3:

¹¹ Weekly Petroleum Status Report, Table B2.

¹² The 90% figure allows for outstanding MTBE contracts and other constraints on refiners' ability to oxygenate with ethanol. If 100% of RFG in the producer regions is oxygenated with ethanol to the 3.5% level, in each case approximately 14% additional credit would be generated.

Table 2.
Maximum Generation of Credits
MM Gal.

Period of Credit Generation	Ethanol Used in Producer Region	Ethanol Req'd. Under ROS (30% at 2.1% wt.)	Ethanol Credit Available
12-Month	415	83	332
7-Month	242	49	193
4-Month ¹³	138	28	110

¹³ It is unlikely that refiners in the ethanol producer states will be limited to the four-month period for generation of renewable oxygenate credits. However, credit purchasers in the non-producer states might be unwilling to wait for credits generated in the second part of the winter season to achieve their required ROS credit balances.

Table 3.

**Net Ethanol Movement
MM Gal.**

Period Of Ethanol Utilization	Gross Ethanol Use Required To Meet Annual ROS In Non-Producer States ¹⁴	Available Credit From Producer States	Net EtOH Required In Non-Producer States Under ROS	Current ¹⁵ EtOH Use In Non-Producer States Which Require RFG	Net ¹⁶ Ethanol Movement Into Non-producer States Due To ROS Only
12-Month	622	332	290	408	(116)
7-Month	622	193	429	238	191
4-Month	622	110	512	136	376

Conclusions:

The most likely scenario for 1995 is probably something between the 7- and 4-month cases for the winter season. Since ETBE is not likely to be widely used, the winter season is likely to be the only period in which the renewable oxygenated

¹⁴ Total required ethanol under the ROS does not change despite the shorter time assumed available to meet requirements.

¹⁵ Current ethanol use includes RFG and Non-RFG areas for states with RFG areas. Total ethanol transported from ethanol producing states to all others is 716, 418, and 239 MM gal/period for the 12-, 7-, and 4-month periods, respectively. This allows a calculation of the incremental burden placed on the ethanol interstate logistics and distribution system by the ROS.

¹⁶ This accounts only for interstate movement from producers to non-producers. (As defined on p. 7, all non-producer states are RFG consumers.) Ethanol may be redistributed among states with and those without RFG areas. The modes and distances of transportation might change, with unpredictable results, under such redistribution. Significant intrastate shift of ethanol use is required due to the assumed complete diversion of ethanol to the RFG pool from gasohol and OG within the non-producer states. This also does not account for ethanol movement among producer states or within individual producer states.

For the 12-month case, the negative increment implies that there would be logistical capacity for fuel ethanol beyond the requirements of the RFG pool at current transshipment levels.

requirement can be satisfied.¹⁷

The use of ethanol to oxygenate RFG during a seven-month winter season would require essentially all available fuel ethanol capacity during the 1995 winter season. This could severely limit the availability of ethanol for traditional gasoline blending into gasohol and OG. Increases in ethanol capacity beyond those estimated or use of stocks could mitigate shortages.

The front-loaded case (a four-month season for ethanol use under the ROS) would produce monthly demand in excess of supply even if ethanol is used only in RFG and RFG/OG and no ethanol is available for gasohol or OG blending during the period.

Assuming no use of ethanol outside of the RFG pool and maximum use of credit trading, flow of ethanol to the states requiring RFG would have to increase over current levels in the 7-month case by approximately 80%. Substantial change in the distribution of ethanol within states would also be required. Total interstate transportation of ethanol would have to increase by 46%.

Even with increased production capacity and inventory draw-down, total interstate transportation of ethanol would have to increase by 157% to satisfy the ROS in the 4-month scenario and would also require the elimination of all gasohol and non-RFG OG. Transportation to non-producer states would have to increase by 276%.

¹⁷ If midwestern refiners blend ethanol into low-RVP blendstock, ethanol could be used directly during the summer season. Presumably, refining such blendstock would be economical at some value of oxygenate credit, but it is beyond the scope of this paper to speculate on what value would be required.

Appendix: Ethanol Distribution Spreadsheet

30% RFG requires ethanol:

VOLUMES IN MILLIONS OF GALLONS ANNUALLY:

State	1995	1995	FHWA Gasohol Sales 1995	FHWA Gasoline Sales 1995	FHWA 1995 Total Sales Gasoline- Equivalent (Extrapolated)
	Fuel EtOH Operational Production Capacity (85% of Nameplate)	Potential Additional Fuel EtOH Capacity (85% of Nameplate)			
Alabama	0.0	0.0	294.2	2,300.7	2,584.9
Alaska	0.0	0.0	0.0	286.5	286.5
Arizona	0.0	0.0	0.0	1,882.3	1,882.3
Arkansas	0.0	0.0	25.7	1,348.3	1,373.1
California	4.5	0.0	62.3	14,297.2	14,357.4
Colorado	0.0	0.0	148.8	1,632.2	1,775.9
Connecti	0.0	0.0	52.8	1,478.9	1,529.9
Delaware	0.0	0.0	0.0	370.0	370.0
Dist. of	0.0	0.0	0.0	184.8	184.8
Florida	0.0	0.0	90.4	6,562.9	6,650.3
Georgia	0.0	0.0	24.1	3,790.3	3,813.5
Hawaii	0.0	0.0	0.0	417.1	417.1
Idaho	6.0	0.0	46.1	544.1	588.6
Illinois	597.1	0.0	1,642.3	4,842.0	6,428.6
Indiana	63.8	0.0	673.1	2,884.4	3,534.7
Iowa	317.9	0.0	539.1	1,458.2	1,979.1
Kansas	29.7	0.0	66.0	1,280.4	1,344.1
Kentucky	0.0	0.0	382.4	2,001.3	2,370.7
Louisian	0.0	64.6	87.6	2,043.8	2,128.4
Maine	0.0	0.0	0.0	641.9	641.9
Maryland	0.0	0.0	0.0	2,228.7	2,228.7
Massachu	0.0	0.0	0.0	2,528.9	2,528.9
Michigan	0.0	0.0	539.5	4,631.3	5,152.5
Minnesot	50.1	0.0	682.3	2,271.2	2,930.3
Mississi	0.0	0.0	0.0	1,400.8	1,400.8
Missouri	0.0	0.0	265.1	2,981.3	3,237.4
Montana	1.7	0.0	5.2	487.4	492.5
Nebraska	156.0	0.0	389.6	824.6	1,201.0
Nevada	0.0	0.0	75.1	735.8	808.4
New Hamp	0.0	0.0	0.0	553.1	553.1
New Jers	0.0	0.0	0.0	3,531.6	3,531.6
New Mexi	10.2	0.0	113.8	899.1	1,009.0
New York	0.0	0.0	0.0	5,924.6	5,924.6
North Ca	0.0	0.0	30.7	3,533.1	3,562.8
North Da	33.2	0.0	58.4	378.0	434.5
Ohio	55.3	0.0	1,309.0	4,964.6	6,229.2
Oklahoma	0.0	0.0	0.0	1,828.2	1,828.2
Oregon	0.0	0.0	200.4	1,446.2	1,639.8
Pennsylv	0.0	0.0	0.0	4,927.6	4,927.6
Rhode Is	0.0	0.0	0.0	400.9	400.9
South Ca	0.0	0.0	0.0	1,962.2	1,962.2
South Da	5.1	0.0	167.1	430.4	591.8
Tennesse	34.0	21.3	203.6	2,685.9	2,882.7
Texas	0.0	0.0	259.7	9,113.1	9,364.0
Utah	0.0	0.0	2.7	820.0	822.6
Vermont	0.0	0.0	0.0	313.9	313.9
Virginia	0.0	0.0	108.3	3,242.3	3,347.0
Washingt	3.6	0.0	443.1	2,529.1	2,957.2
West Vir	0.0	0.0	44.0	898.9	941.4
Wisconsi	0.0	0.0	167.7	2,274.5	2,436.6
Wyoming	0.0	0.0	54.2	336.4	388.7
Total	1,368	86	9,255	121,331	130,272

State	1995 Gasohol Fraction Total Gasoline- Equivalen	1995 Fractio of Stat Populat Using RFG	Pop. Fract. Requirin RFG/OG for CO Control Period	Pop. Fract. Requiri OG for CO Control Period	1995 OG Sales Volume	1995 RFG Sales Volume (O2 from EtOH 30% & MTBE 70%)
Alabama	0.110	0	0	0	0.0	0.0
Alaska	0.000	0	0	0.416	51.0	0.0
Arizona	0.000	0	0	0.582	469.2	0.0
Arkansas	0.018	0	0	0.022	12.7	0.0
California	0.004	0.540	0.540	0.888	13,010.3	7,911.7
Colorado	0.081	0	0	0.737	515.2	0.0
Connecticu	0.033	0.625	0.625	0.625	395.9	979.2
Delaware	0.000	0.829	0.646	0.658	104.3	313.9
Dist. of C	0.000	1	1	1	79.2	189.3
Florida	0.013	0	0	0	0.0	0.0
Georgia	0.006	0	0	0	0.0	0.0
Hawaii	0.000	0	0	0	0.0	0.0
Idaho	0.076	0	0	0	0.0	0.0
Illinois	0.247	0.641	0	0	0.0	4,209.4
Indiana	0.184	0.11	0	0	0.0	397.2
Iowa	0.263	0	0	0	0.0	0.0
Kansas	0.047	0	0	0	0.0	0.0
Kentucky	0.156	0.278	0	0	0.0	673.2
Louisiana	0.040	0	0	0	0.0	0.0
Maine	0.000	0.656	0	0	0.0	430.1
Maryland	0.000	0.734	0.734	0.888	847.6	1,675.2
Massachuse	0.000	0.847	0.648	0.648	701.8	2,192.2
Michigan	0.101	0	0	0	0.0	0.0
Minnesota	0.225	0	0	0.59	573.9	0.0
Mississippi	0.000	0	0	0.026	15.6	0.0
Missouri	0.079	0	0	0	0.0	0.0
Montana	0.010	0	0	0	0.0	0.0
Nebraska	0.313	0	0	0	0.0	0.0
Nevada	0.090	0	0	0.825	260.0	0.0
New Hampsh	0.000	0.562	0.262	0.268	63.5	317.9
New Jersey	0.000	0.948	0.924	0.948	1,433.8	3,428.3
New Mexico	0.109	0	0	0.328	126.3	0.0
New York	0.000	0.751	0.621	0.678	1,720.3	4,554.4
North Caro	0.008	0	0	0.248	375.3	0.0
North Dako	0.130	0	0	0	0.0	0.0
Ohio	0.203	0	0	0.256	544.3	0.0
Oklahoma	0.000	0	0	0	0.0	0.0
Oregon	0.118	0	0	0.482	298.5	0.0
Pennsylvan	0.000	0.828	0.317	0.317	669.0	4,171.8
Rhode Isla	0.000	0.9	0	0	0.0	368.6
South Caro	0.000	0	0	0	0.0	0.0
South Dako	0.273	0	0	0	0.0	0.0
Tennessee	0.068	0	0	0.175	201.3	0.0
Texas	0.027	0.416	0.034	0.496	1,935.8	3,980.1
Utah	0.003	0	0	0.144	50.6	0.0
Vermont	0.000	0	0	0	0.0	0.0
Virginia	0.031	0.591	0.237	0.237	329.1	2,022.6
Washington	0.145	0	0	0.646	699.7	0.0
West Virgi	0.045	0	0	0	0.0	0.0
Wisconsin	0.067	0	0	0.019	18.5	0.0
Wyoming	0.135	0	0	0	0.0	0.0
Total					25,502	37,815

State	Total Non-RFG Fuel EtOH use (gasohol & OG only)	Fuel EtOH Use In RFG areas ABSENT ROS	Fuel EtOH Use Due To ROS (no OG outside of RFG pool & no gasohol)	Surplus (Shortage) of EtOH in RFG areas only
Alabama	29.4	0.0	0.0	0.0
Alaska	0.5	0.0	0.0	0.0
Arizona	4.5	0.0	0.0	0.0
Arkansas	2.7	0.0	0.0	0.0
California	248.5	134.2	135.5	1.4
Colorado	19.4	0.0	0.0	0.0
Connectic	9.0	5.6	19.7	14.1
Delaware	1.0	0.8	6.2	5.3
Dist. of	0.8	0.8	3.8	3.0
Florida	9.0	0.0	0.0	0.0
Georgia	2.4	0.0	0.0	0.0
Hawaii	0.0	0.0	0.0	0.0
Idaho	4.6	0.0	0.0	0.0
Illinois	164.2	105.3	75.8	(29.5)
Indiana	67.3	7.4	7.1	(0.3)
Iowa	53.9	0.0	0.0	0.0
Kansas	6.6	0.0	0.0	0.0
Kentucky	38.2	10.6	12.1	1.5
Louisiana	8.8	0.0	0.0	0.0
Maine	0.0	0.0	7.7	7.7
Maryland	8.2	6.0	33.6	27.7
Massachus	6.8	5.7	43.0	37.2
Michigan	54.0	0.0	0.0	0.0
Minnesota	72.5	0.0	0.0	0.0
Mississip	0.2	0.0	0.0	0.0
Missouri	26.5	0.0	0.0	0.0
Montana	0.5	0.0	0.0	0.0
Nebraska	39.0	0.0	0.0	0.0
Nevada	9.8	0.0	0.0	0.0
New Hamps	0.6	0.3	6.0	5.7
New Jerse	13.8	13.1	68.7	55.6
New Mexic	12.5	0.0	0.0	0.0
New York	16.6	12.5	89.8	77.4
North Car	6.7	0.0	0.0	0.0
North Dak	5.8	0.0	0.0	0.0
Ohio	135.1	0.0	0.0	0.0
Oklahoma	0.0	0.0	0.0	0.0
Oregon	22.6	0.0	0.0	0.0
Pennsylva	6.4	5.3	78.4	73.1
Rhode Isl	0.0	0.0	6.6	6.6
South Car	0.0	0.0	0.0	0.0
South Dak	16.7	0.0	0.0	0.0
Tennessee	22.2	0.0	0.0	0.0
Texas	44.1	18.4	72.3	54.0
Utah	0.8	0.0	0.0	0.0
Vermont	0.0	0.0	0.0	0.0
Virginia	13.9	8.2	38.1	29.9
Washingto	50.1	0.0	0.0	0.0
West Virg	4.4	0.0	0.0	0.0
Wisconsin	16.9	0.0	0.0	0.0
Wyoming	5.4	0.0	0.0	0.0
Total	1,283	334	705	370

State	Surplus (Shortage) of Fuel EtOH assuming no change in gasohol use patterns outside of areas using RFG.		Surplus (Shortage) of Fuel EtOH assuming ALL EtOH IS USED IN RFG (i.e., no OG out of RFG areas & no gasohol)	
	('95 OPER.CAP)	('95 MAX.CAP)	('95 OPER.CAP)	('95 MAX. CAP.)
Alabam	(29.4)	(29.4)	0.0	0.0
Alaska	(0.5)	(0.5)	0.0	0.0
Arizona	(4.5)	(4.5)	0.0	0.0
Arkans	(2.7)	(2.7)	0.0	0.0
Califo	(245.3)	(245.3)	(131.0)	(131.0)
Colora	(19.4)	(19.4)	0.0	0.0
Connec	(23.0)	(23.0)	(19.7)	(19.7)
Delawa	(6.3)	(6.3)	(6.2)	(6.2)
Dist.	(3.8)	(3.8)	(3.8)	(3.8)
Florid	(9.0)	(9.0)	0.0	0.0
Georgi	(2.4)	(2.4)	0.0	0.0
Hawaii	0.0	0.0	0.0	0.0
Idaho	1.3	1.3	6.0	6.0
Illino	462.4	462.4	521.4	521.4
Indian	(3.3)	(3.3)	56.6	56.6
Iowa	264.0	264.0	317.9	317.9
Kansas	23.1	23.1	29.7	29.7
Kentuc	(39.7)	(39.7)	(12.1)	(12.1)
Louisi	(8.8)	55.8	0.0	64.6
Maine	(7.7)	(7.7)	(7.7)	(7.7)
Maryla	(35.8)	(35.8)	(33.6)	(33.6)
Massac	(44.0)	(44.0)	(43.0)	(43.0)
Michig	(54.0)	(54.0)	0.0	0.0
Minnes	(22.4)	(22.4)	50.1	50.1
Missis	(0.2)	(0.2)	0.0	0.0
Missou	(26.5)	(26.5)	0.0	0.0
Montan	1.2	1.2	1.7	1.7
Nebras	117.0	117.0	156.0	156.0
Nevada	(9.8)	(9.8)	0.0	0.0
New Ha	(6.3)	(6.3)	(6.0)	(6.0)
New Je	(69.4)	(69.4)	(68.7)	(68.7)
New Me	(2.3)	(2.3)	10.2	10.2
New Yo	(94.0)	(94.0)	(89.8)	(89.8)
North	(6.7)	(6.7)	0.0	0.0
North	27.3	27.3	33.2	33.2
Ohio	(79.8)	(79.8)	55.3	55.3
Oklaho	0.0	0.0	0.0	0.0
Oregon	(22.6)	(22.6)	0.0	0.0
Pennsy	(79.5)	(79.5)	(78.4)	(78.4)
Rhode	(6.6)	(6.6)	(6.6)	(6.6)
South	0.0	0.0	0.0	0.0
South	(11.6)	(11.6)	5.1	5.1
Tennes	11.8	33.1	34.0	55.3
Texas	(98.1)	(98.1)	(72.3)	(72.3)
Utah	(0.8)	(0.8)	0.0	0.0
Vermon	0.0	0.0	0.0	0.0
Virgin	(43.8)	(43.8)	(38.1)	(38.1)
Washin	(46.5)	(46.5)	3.6	3.6
West V	(4.4)	(4.4)	0.0	0.0
Wiscon	(16.9)	(16.9)	0.0	0.0
Wyomin	(5.4)	(5.4)	0.0	0.0
Total	(285)	(199)	663	749

Annualized Equivalent Volume EtOH for
EtOH only during winter season in RFG.
(i.e., no EtOH is used in gasohol;
EtOH used in OG only if RFG required;
no summer ETBE)

State	Full Winter (7 Months)	Jan.-Apr. (First Year of Program)
Alabama	0.0	0.0
Alaska	0.0	0.0
Arizona	0.0	0.0
Arkansas	0.0	0.0
California	232.3	406.6
Colorado	0.0	0.0
Connecticut	33.7	59.0
Delaware	10.6	18.5
Dist. of C	6.5	11.4
Florida	0.0	0.0
Georgia	0.0	0.0
Hawaii	0.0	0.0
Idaho	0.0	0.0
Illinois	129.9	227.3
Indiana	12.3	21.4
Iowa	0.0	0.0
Kansas	0.0	0.0
Kentucky	20.8	36.4
Louisiana	0.0	0.0
Maine	13.3	23.2
Maryland	57.7	100.9
Massachuse	73.7	128.9
Michigan	0.0	0.0
Minnesota	0.0	0.0
Mississippi	0.0	0.0
Missouri	0.0	0.0
Montana	0.0	0.0
Nebraska	0.0	0.0
Nevada	0.0	0.0
New Hampsh	10.3	18.1
New Jersey	117.7	206.1
New Mexico	0.0	0.0
New York	154.0	269.5
North Caro	0.0	0.0
North Dako	0.0	0.0
Ohio	0.0	0.0
Oklahoma	0.0	0.0
Oregon	0.0	0.0
Pennsylvan	134.5	235.3
Rhode Isla	11.4	19.9
South Caro	0.0	0.0
South Dako	0.0	0.0
Tennessee	0.0	0.0
Texas	124.0	217.0
Utah	0.0	0.0
Vermont	0.0	0.0
Virginia	65.3	114.3
Washington	0.0	0.0
West Virgi	0.0	0.0
Wisconsin	0.0	0.0
Wyoming	0.0	0.0
Total	1,208	2,114

Annualized Equivalent Volume EtOH for
EtOH only during winter season in RFG
but keeping demand for gasohol & OG
unchanged outside of RFG areas.

State	Full Winter (7 Months)	Jan.-Apr. (First Year of Program)
Alabama	50.4	88.3
Alaska	0.8	1.5
Arizona	7.8	13.6
Arkansas	4.6	8.1
California	428.3	749.5
Colorado	33.3	58.3
Connecticut	39.5	69.1
Delaware	10.9	19.0
Dist. of Col	6.5	11.4
Florida	15.5	27.1
Georgia	4.1	7.2
Hawaii	0.0	0.0
Idaho	7.9	13.8
Illinois	231.0	404.2
Indiana	115.0	201.2
Iowa	92.4	161.7
Kansas	11.3	19.8
Kentucky	68.1	119.2
Louisiana	15.0	26.3
Maine	13.3	23.2
Maryland	61.4	107.5
Massachusetts	75.4	132.0
Michigan	92.5	161.9
Minnesota	124.3	217.5
Mississippi	0.3	0.5
Missouri	45.5	79.5
Montana	0.9	1.6
Nebraska	66.8	116.9
Nevada	16.8	29.4
New Hampshire	10.8	18.9
New Jersey	119.0	208.2
New Mexico	21.4	37.4
New York	161.1	281.9
North Caroli	11.4	20.0
North Dakota	10.0	17.5
Ohio	231.6	405.2
Oklahoma	0.0	0.0
Oregon	38.7	67.7
Pennsylvania	136.4	238.6
Rhode Island	11.4	19.9
South Caroli	0.0	0.0
South Dakota	28.7	50.1
Tennessee	38.0	66.5
Texas	168.2	294.3
Utah	1.3	2.3
Vermont	0.0	0.0
Virginia	75.1	131.4
Washington	85.8	150.2
West Virgini	7.5	13.2
Wisconsin	29.0	50.8
Wyoming	9.3	16.2
Total	2,834	4,960

Mr. DINGELL. Just one question. The gentleman from Colorado was talking about supply. You indicated that you could shift ethanol from one use to another. Isn't that going to cause some distortions, not only in this market, but in other markets?

Ms. TIERNEY. We think that the principal distortion will be in the cost parameters for those providing conventional fuel. I should say, profit parameters. Don't expect to see a change in the market price for conventional gasoline, because that is—there is too small an amount of this to be a price-driver, and we don't think it will be a problem.

Mr. DINGELL. Do you have studies at the Energy Information Agency on that particular matter?

Ms. TIERNEY. We have submitted for the record a study that looks at the effect of—whether or not we would expect to see an increase in the demand for ethanol; whether or not there is sufficient ethanol in the marketplace, on aggregate, to meet that demand, and where movements of ethanol would come from should they be required to come from somewhere, such as in the conventional gasoline market; and you have that, you have that study in the record.

Mr. DINGELL. Is that also in the rulemaking record, however?

Ms. TIERNEY. We have given that study in draft form to EPA this spring, and we then proceeded to have a peer review; and we have just finalized this and have given it to EPA as well.

Mr. DINGELL. That is in the EPA record, Ms. Nichols?

Ms. NICHOLS. Yes, Mr. Chairman, it is.

I would also just like to add that this issue that you have raised and that Mr. Schaefer raised is precisely the reason why EPA is so seriously looking at the idea of a phase-in of any requirement for reformulated oxygenates; that would help to keep these distortions and spikes down.

Mr. DINGELL. Now, my very wise and dear friend, Mr. Finnegan, just whispered in my ear, is that going to require another rulemaking?

Ms. NICHOLS. No.

Mr. DINGELL. You don't think so?

Ms. NICHOLS. We noticed the proposed idea of a phase-in in the notice on the 30 percent mandate proposal.

Mr. SCHAEFER. Would the Chairman yield one quick second on this?

Mr. DINGELL. Sure.

Mr. SCHAEFER. When is Energy going to know what the terms—if there is a going to be a phase-in. Are they going to know this by July 1?

Ms. NICHOLS. Absolutely. That is our intent.

Mr. SCHAEFER. By July 1. It is on the record.

I might ask Ms. Tierney also, in your studies on availability of ethanol, are there studies also of how this type of additive to the gasoline could possibly have an effect on cars, and in particular, the working condition of cars, in particular the older models' gas tanks, rubber gaskets, anything that comes in contact with them?

Ms. TIERNEY. No. I don't think we have looked at that. Recognizing that today ethanol can be used up to 10 percent in conventional

gasoline delivered in regular service stations, and it is in many cases up to that level.

Mr. SCHAEFER. That is precisely what I am asking. What happens if we up that and it is more highly concentrated?

Ms. TIERNEY. We are not upping that. The proposed rule, as I understand it, would have a 2 percent oxygenate requirement—excuse me, of which 30 percent would be renewable oxygenates, renewable ethanol, excuse me.

Ms. NICHOLS. May I jump in here, excuse me, but on the auto issue I think perhaps EPA has some information based on the winter oxygenated fuels program that you are familiar with, which has been using ethanol to a considerable extent, as well as ETBE and MTBE, and we have been talking to the auto companies. We don't have a formal written report on this, but we have a good deal of informal dialogue with the companies, and there have been no indications of problems with the automobiles as a result of the program.

Mr. SCHAEFER. Even on the older cars, even with things like vapor lock or anything else, particularly in high altitudes?

Ms. NICHOLS. Yes, that is correct.

Mr. SCHAEFER. Well, any of that information, Mr. Chairman, I would certainly like to have you deliver, Ms. Nichols. Thank you, Mr. Chairman.

Mr. DINGELL. The time of the gentleman has expired.

The Chair recognizes the gentleman from Michigan, Mr. Upton.

Mr. UPTON. Thank you, Mr. Chairman.

Ms. Nichols, in the Chairman's letter to EPA about this hearing, he called attention to the Lake Michigan ozone control program findings as they affect moderate areas in Michigan, as well as in Wisconsin. He noted that the EPA has been considering a "flexibility policy" for the Great Lakes region; and he also indicated that Congress did not intend to require a "bump-up" to more stringent requirements due to the pollution that they did not control.

I guess my question is, where are we on this, or what is the status of this policy?

Ms. NICHOLS. This is a policy, Mr. Upton, which is applicable not only to western Michigan, but to many other portions of the United States as well, which is why we are trying to proceed on a national basis and not just engage in sort of State-by-State policy guidance on an issue of this importance.

What we are trying to do is to deal with the principle that you have mentioned, that areas that are in a nonattainment status, in part due to the contribution of areas upwind that they have—

Mr. UPTON. A large part.

Ms. NICHOLS [continuing]. that they have control over, should not be unfairly penalized as a result of it. And there is a potential problem in the Clean Air Act in the sense that areas that are relatively clean, even though they do have violations, may—are required under the Act to attain sooner than areas that have a more severe ozone problem. So you get this anomaly that an area which has less pollution under its own control could be asked to do things that are more onerous sooner than areas that have a worse pollution problem and that are contributing to the health problems of their neighbors downwind.

The approach that we have tried to develop and which we are in the process of developing a formal policy position on is to say that areas that would not be responsible for reducing the pollution that was not of their own making, but would only be asked to take those measures which are considered reasonable in light of their own contribution to the problem.

This is an issue that sometimes leads to difficulty in explanation or implementation in certain local areas where the people may feel that they really don't have any problem of their own making at all; and I myself have visited in Michigan and have met with representatives of the Muskegon and Lansing area, and I understand that there is still some concern on their part about how much of the pollution is their own versus the import, which we are documenting in modeling studies.

But our feeling is that we should be able to work out a policy under which areas such as western Michigan would only be required to do those measures which would affect things that are reasonably under their control, and not have to bump them up—"bump up" is a term I guess we use to mean put them into a category that more severe areas would have to implement.

Mr. UPTON. Do you have a guess as to when that policy might become formal? What steps have you taken?

Ms. NICHOLS. We recognize that this is going to be an issue for every State that has to submit a nonattainment plan in November of this year, and so we are working very hard to get the formal guidance out as soon as we can. It will certainly be out by the end of the summer, but I can't give you an exact date.

Mr. UPTON. I know that I am most interested, and maybe we can have some meetings in July to talk about this further. I know that the entire Michigan delegation, the Chairman as well as myself, are most interested, as well as a number of other States; and I think we are going to have a vote soon so I will yield back the balance of my time.

Thank you very much.

Ms. NICHOLS. We will be happy to meet with you.

Mr. DINGELL. The time of the gentleman has expired.

Ms. Nichols, an EPA document which is a summary of the NEC meeting on PDVSA has been made available to the committee. It is in Exhibit 1.

Now, in that, there appears at the middle of the page—it says, "Conditions on selection of Option 2 as laid out by Sally Katzen: EPA lawyers will consult with USTR and State lawyers to ensure that we cannot adopt Option 2 without a rule change. Note to CB: A new rule is clearly needed.

"Two, the U.S. ambassador will require the Venezuelans to withdraw their impending GATT panel request and not publicly announce the EPA change in position until the politics of the Hill—until the politics of this, parenthesis, Hill and others, close parenthesis, can be worked out in the U.S. Note to CB: The U.S. ambassador is scheduled to meet the with the Venezuelans at 5 p.m. on the 15th, close parenthesis.

"Three, EPA will expedite the rulemaking to make this change and an NPRM will be signed by the administrator by April 21.

"Four, after the U.S. ambassador talks to the Venezuelans, the Hill will be worked as to why we are doing this. Parenthesis, Note to CB: We will be saying that USTR had made it clear that we will lose the GATT challenge ruling if we do settle with the Venezuelans. This will result in a rule change that will allow individual foreign baseline use for all imported RFG and conventional gasoline. For PDVSA gasoline, this means more NO_x in the northeast.

"Five, there will be an outreach to oil led by DOE with the assistance of State and USTR. EPA is to stay out of this process.

"Six, Venezuela will get no enforcement breaks in the revised rule, i.e., enforcement, monitoring and documentation must be equivalent to domestics."

This sounds a little to me like a deal.

Now, maybe you want to tell us that this is not a deal. I was of the view that EPA was engaged in rulemaking. This doesn't sound like a rulemaking; this sounds like a back-room deal.

Now, maybe Ms. Katzen wants to tell me that you and Mr. Watson and the others haven't got a deal here. But you say this is an EPA document and major players are meeting—OMB, Sally Katzen, chairing the meeting for Office of Management and Budget; State, Joan Spero for USTR; EPA, Mary Nichols. I guess this is your memo.

So was a deal cut here or was a deal not cut here?

Ms. NICHOLS. I am happy to respond.

This is not a memo that I prepared; I don't know who did prepare, it or to whom it was addressed. I know it was produced to you, so it was in the files of a member of my staff, and I am not going to deny that I was at the meeting.

I am happy to acknowledge that I was at the meeting, but I can't comment on the tone of the memo.

Mr. DINGELL. So you were at the meeting.

Is this memo a fair reflection of what was said at the meeting?

Ms. NICHOLS. I think it is fair to this extent, Mr. Chairman.

Mr. DINGELL. Fair to this extent. All right. Now you want to qualify that.

Now tell me in what way you have qualified this.

Ms. NICHOLS. OK, here is the qualification. I was there, I stated that EPA was prepared to go forward with a notice of proposed rulemaking on the issue of foreign refiner baselines, that I personally was willing to recommend to the administrator that she issue such a notice of proposed rulemaking by April 21. This was on March 14, I believe; I thought a month would be an adequate time to prepare the notice of proposed rulemaking.

I made that statement because I was satisfied at that time that we had enough information to justify making the proposal to go out in a public process and solicit comment on the issue of the foreign refiner baseline. If that is a deal, then that was the deal.

Mr. DINGELL. Well, it sounds like a deal. EPA goes forward, all of these things happen, and Venezuela gets different treatment.

Ms. NICHOLS. The other issues, I think, are the—

Mr. DINGELL. But doesn't Venezuela get different treatment under this than anybody else?

Ms. NICHOLS. No, they do not.

Mr. DINGELL. They don't?

Ms. NICHOLS. First of all, it is a notice; and second, if the notice is to result in a final rule, what Venezuela could potentially get is the opportunity to apply for its own baseline as if it were a domestic company. So it is not getting treated differently.

Mr. DINGELL. Well, let's read what the State Department said to Joan Spero before the meeting. It says, "EPA administrator Carol Browner is not expected to attend the March 14 meeting"—this is the meeting that this other document refers to—"and will be represented by EPA Assistant Administrator for Air and Radiation, Mary Nichols," that is you.

"EPA will not advocate either the volume cap set compromise option or retain the final RFG rule, parenthesis, do-nothing option, but will wait for the interagency group to endorse one option. The meeting will be chaired by Sally Katzen of OMB.

"Carter of NEC is in Detroit at the GS7 jobs conference. At the March 14 meeting, we should seek interagency support for EPA's volume cap option to resolve the U.S.-Venezuelan reformulated gasoline RFG dispute. This option would allow Venezuela to set its own baseline for the first 650,000 barrels per day of RFG exports to the U.S. with a stricter average U.S. baseline applying to all additional exports. This option restricts the competitive pressure on domestic refiners and limits any potential environmental effects from Venezuela's relatively dirtier gasoline."

Now, this is—remember, the State Department's position that Venezuela has got relatively dirtier gasoline. This option was accepted by the GOB last September, and the EPA now believes it can adequately measure and monitor Venezuelan compliance.

Now, "We should also obtain interagency agreement to have EPA draft and OMB clear a proposed rule change to be published in the Federal Register by April 21. USTR would then draft a credible message spelling out the USG offer and conditions to the GOB. This would allow USG to persuade the GOB to drop its March 23 GATT panel request. If necessary, USG could send a delegation to Caracas to finalize the USG offer, thereby resolving the dispute."

Now, what this tells me is that the State Department had instructed their person there to cut this deal—how the whole business was going to be—how it was all going to be nicely orchestrated after this whole thing was done.

This document here tells me about how you folks discuss this and everything sells. It says, "Decision: Go with Option 2 on attached briefing paper, with conditions." This is the briefing paper.

Now, what I am trying to figure out is, did you have a deal with the Venezuelans? Was this, in fact, a regulation, a regulatory process? Were you going down there cutting a deal with the Venezuelans, and then coming up here and issuing a regulation?

I have always understood—and perhaps I am a bumpkin, but I have always understood that regulations were issued after notice, a hearing, opportunity to be heard, a full record, and the decision is made on the record. I don't see anything in here that says that this decision is going to be made on any kind of record that has been made by EPA; but rather, you folks, the State Department, Ms. Katzen—and I don't see you in this, Mr. Shapiro; I guess maybe you missed out. Oh, Charlene Barshefsky was there; my

apologies. But I think this is the way the record appears to have been made.

Ms. KATZEN. Mr. Chairman, if I may, since these words in the memo, are attributed to me—

Mr. DINGELL. All I was doing is reading your document. I wasn't at these meetings.

Ms. KATZEN. I understand. I have never before seen the internal State Department memo of what they hoped to accomplish at the meeting, but I can tell you that—

Mr. DINGELL. It was successful. Because unless I am grossly in error, this is the rulemaking that is going forward. Am I in error on this, Ms. Nichols?

Ms. NICHOLS. Mr. Chairman, you have, I think, put two things together.

Mr. DINGELL. I have added one and one and gotten two.

Ms. NICHOLS. No. You have assumed that the final rule is a proposal.

Mr. DINGELL. Or one in six-tenths—

Ms. NICHOLS. But you have added a proposal together with an ongoing rulemaking and turned it into a commitment on a final, which is absolutely not the case and which never happened.

Administrator Browner has not made a decision on whether to grant this concept of allowing the foreign refiners to petition for their own baseline. We are still in rulemaking on this issue. The comment period closes tomorrow on this issue.

Mr. DINGELL. Now, let's look at this. Here you have got poor Mr. Watson and poor Mr. Shapiro worried sick about a GATT challenge. You have Ms. Katzen presiding over the meeting. You have—who is this wonderful lady from the State Department, again, who was there?

Ms. KATZEN. Joan Spero.

Mr. DINGELL. Ms. Spero shows up with this briefing document in her pocket, or her briefcase or whatever, and they are going with Option 2.

Now, here are the pros and cons on Option 2. This is a confidential Federal agency only, not for outside distribution, and I apologize for being outside that. This is part of Exhibit 1.

Now, here are the pros. It says, "Venezuela would accept option, avoid GATT challenge and possible adverse consequences of GATT loss, which could include compensation/retaliation, undermine opening of Venezuelan economy, jeopardize GATT environmental objectives, provoke Venezuela retaliation, parenthesis, details listed in Cons of Option 1, close parenthesis."

Now, the next thing, "A few groups, parenthesis, independent gasoline marketers in the northeast, close parenthesis, support the Venezuelan position because the price of imported gasoline represents a ceiling on the price that can be charged by U.S. refiners." And then it says, "supported by five representatives."

"Cons. Results in increased NO_x emissions relative to the final rule for 1995-1997, but the magnitude of harm is limited because of the volume cap. Will be opposed immediately and during rulemaking by domestic refiners, northeastern air consortium and 44 congressmen."

Now, I am not for or against this; I just want to make sure that your rulemaking is done properly. So here we have got Ms. Spero's instructions, we have got the summary of the meeting on PDVSA, which is an EPA document, and then we have got the confidential Federal agency use only, "not for outside distribution" document. All this says to me is that, at the meeting, you discussed a deal; the supporting documents say what the deal is, how it is going to be cut, what it is going to do, Venezuelans like the deal, and the rulemaking goes forward to essentially do exactly what these three documents say you guys were going to do.

And all I am trying to find out, is whether EPA is really doing the fine, independent work that it is supposed to do; in a rule-making which is supposed to be open, which is supposed to function on the basis of a record and which is supposed to be fair and impartial to all, not involving special deals cut on behalf of the Venezuelans at the behest of our good friends at the State Department, not presided over at a special meeting where, not EPA conducts the meeting, but Ms. Katzen conducts the meeting, and you folks are under pressure.

Now, can you tell me that a deal wasn't cut here?

Ms. NICHOLS. Mr. Dingell, I believe that I went to the meeting with a proposal that was EPA's choice as to what it proposed to do; that we had a discussion with other interested members of the administration, presided over by Ms. Katzen; and that when I left the meeting, we proceeded along the path that I had intended that we would proceed in the beginning, which was, if I may just say, to make a regulatory proposal for an open notice and comment rule-making, which is currently in process and which has been very open and full of notice.

Mr. DINGELL. Where in these documents does it say that this is going to be a fair and open notice rulemaking, notice and all that sort of stuff has already gone out—notice and opportunity for public hearing and proposed regulations were all out? This is all out before.

Ms. NICHOLS. No. I don't know what you are talking about.

Ms. KATZEN. This speaks about an NPRM being released—a notice of proposed rulemaking being released—and I think it is essential to make two points in context.

Mr. DINGELL. Well, before you do that, wasn't the final rule out?

Ms. NICHOLS. There was a final rule that was issued on December 15. The notice of proposed rulemaking that was issued in April was a notice for an amendment to that rule, which supplements that.

Mr. DINGELL. OK. So you sent your notice out for an amendment?

Ms. NICHOLS. Yes.

Mr. DINGELL. And then Mrs. Katzen, or Ms. Katzen, you have the meeting, and then all of these wonderful things happen. And I am trying to find out how this becomes a regular rulemaking that meets the test of the Administrative Procedures Act, the requirements of the Clean Air Act and other things.

Ms. KATZEN. I can understand the confusion, and that is why I want to clarify two aspects of this that have been mentioned repeatedly.

The administration's position has consistently been that agencies that are responsible for implementation and promulgation of regulations have the responsibility to do so. This is something that Congressman Waxman noted earlier, something that you have been concerned about. So EPA is clearly the one that has the decision-making authority here, and that we all respect.

At the same time, it is not unusual to have an agency issue a regulation or think about issuing a regulation that will affect another agency. DOT, the Transportation Department, may issue a regulation that has implications for the Energy Department. DOT may issue a regulation that has implications for EPA. When that happens, they come to OMB, and we have an interagency group discuss it. The DOT would make the decision, but the other agency would be heard first.

In this instance, EPA made the decision, and that is shown under II, "Decision." That decision reflected Mary Nichols' presentation of what she was prepared to recommend. It is not stated here. It is an EPA document; I can't state why or who framed the contents, but I do know that her testimony here is exactly what happened at the meeting.

When the meeting began, and I called the meeting to order, the first person I called on was Mary Nichols, who told us what EPA's decisions were with respect to this work. Before State spoke, before USTR spoke, before NSC or anyone else spoke, Mary Nichols announced what it was that they had decided to do; and that was to issue a notice of proposed rulemaking. It was clear to all of us, and was in fact discussed, as I mentioned in my opening statement.

Mr. DINGELL. You say that after this, that Ms. Nichols and EPA issued a notice of proposed rulemaking?

Ms. KATZEN. She said that she was prepared to recommend a notice of proposed rulemaking to go with Option 2 and that she would recommend that to the Administrator.

Mr. DINGELL. Oh, Option 2.

Ms. KATZEN. Option 2 would lead to a notice of proposed rulemaking. She talked about how soon she thought she could produce such a draft and how long it would take OMB to review it. It was a discussion of process.

Mr. DINGELL. Was this a public proceeding—

Ms. KATZEN. It would become—

Mr. DINGELL [continuing]. with the public involved at all?

Ms. KATZEN. With a notice of proposed rulemaking, it becomes a public proceeding. The EPA—

Mr. DINGELL. How about this wonderful meeting where all of these wonderful agreements are worked out?

Ms. KATZEN. The only agreement was to help implement EPA's determination to issue a notice of proposed rulemaking, which would start a public proceeding at which notice and comment would be received and evaluated by EPA.

Ms. NICHOLS. Mr. Chairman, are you suggesting that we should have a public proceeding before we decide to issue a notice of proposed rulemaking?

Mr. DINGELL. Let me make a comment, Ms. Nichols. I must look a little dumb today. I probably got my gullible face or gullible suit on, and maybe I ought not wear these washed suits.

But here is the Environmental News, Wednesday, December 12, 1993. This says, "EPA finalizes reformulated gasoline rule," and it doesn't mention anything about Venezuela here. But five days later, EPA comes out with a statement of use of individual baselines by foreign refiners in the reformulated gasoline program. That comes out later.

But now you people are at a later time getting this wonderful meeting where you are all discussing these things, and there is no public notice about that. It is not included in any part of the rule-making procedure; it is not set out or set forth in any part in any form in any of the proceedings which took place; it is not a part of the record.

This subcommittee had to get these documents after considerable distress on the part of the EPA and the State Department and other good folk down there who really didn't want this all coming out. And I find this to not reflect the kind of rulemaking that I thought we had when we had rulemakings involved with the issuance of regulations.

And now maybe—maybe Ms. Nichols decided that she was going to have a—make a rulemaking. But there was one rulemaking already going on. Now we are going to have the second rulemaking after this meeting, and it looks to me like we have a carefully cooked rulemaking which is going to achieve a preordained set of results in which public comments, public opportunity for input—and I don't know whether I agree with what you are doing with regard to Venezuelans or not—is going to be disregarded and you are going to come up with the result which is set forth here in the minutes of the meeting that were kept by somebody, Ms. Nichols said it wasn't she.

Now, can you deny that that is the case, and can you deny that that is not the appearance that that is the case?

Ms. KATZEN. I stated here under oath that when EPA issued the notice of proposed rulemaking, it was clear to all concerned that they would receive comments and would evaluate those comments, and that there was absolutely no deal or no agreement whatsoever—and I stated so unequivocally, under oath—that a final rule would issue tracking the notice of proposed rulemaking.

The arrangement was to have a temporary suspension of the request for a panel by issuing a notice of proposed rulemaking and receiving the information by which EPA could make the decision. I have participated in every one of these meetings; I do not know of any deal that a final rule had to be issued.

Mr. Watson has said that he anticipates that if the final rule does not fairly track the notice, Venezuela may well return its request for a panel under the GATT, and that is what we expect will happen. But it was clear throughout our discussion, and since, that EPA was not to be told, and would not be told, how it would resolve this matter. It was EPA's judgment that would be made, and when a final order came out, that would be EPA's independent judgment. I state so unequivocally.

It was an agreement to send out an NPRM, at which point the APA comes into practice, at which point the public notice comes into practice. But there was no precooked outcome of this particular process, sir.

Mr. DINGELL. Well, let's discuss here what happened. Now, on March 25, 1994, Ms. Margolies-Mezvinsky and I wrote a letter down there.
[The information follows:]

EPA:CAA 4786 (Re: Venezuela)

JDD:DF:ctv

JOHN D. DINGELL, MICHIGAN, CHAIRMAN

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U.S. House of Representatives
Committee on Energy and Commerce
Room 2125, Rayburn House Office Building
Washington, DC 20515-6115

March 25, 1994

The Honorable Warren Christopher
Secretary
Department of State
3201 C Street, N.W.
Washington, D.C. 20520

The Honorable Michael Kantor
U.S. Trade Representative
600 17th Street, N.W.
Washington, D.C. 20506

The Honorable Carol M. Browner
Administrator
Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Secretary Christopher, Ambassador Kantor, and
Administrator Browner:

Since writing to you on March 21, 1994 about a proposed rule to amend regulations promulgated by the Environmental Protection Agency (EPA) last December on reformulated gasoline (RFG), a new State Department cable has come to the Committee's attention. It sets forth a summary of meetings and telephone calls between the U.S. Ambassador and Venezuelan officials regarding the reopening of the regulations. It includes a March 22, 1994 letter to the Minister of State, Mr. Alberto Poletto, and a March 22 reply from the Minister, and briefly describes the so-called "September compromise."

The U.S. letter includes a commitment by the U.S. to propose the reformulated gasoline rule by April 20, 1994 in exchange for Venezuela agreeing to withdraw a request for formation of a GATT panel in Geneva, Switzerland, but not the withdrawal of the GATT challenge. The Venezuelan reply indicates an acceptance of the U.S. offer "without limitations or additional modifications" if the offer is "put into effect as a final regulation within a

Page 2

period of five months" from March 22, 1994. Venezuela indicated that it would reopen the request for a panel if the regulatory process is interrupted or "if at the end of five months, this question has not been conclusively resolved."

It appears that the State Department and the Environmental Protection Agency have entered into an agreement with Venezuela that cannot be changed, even slightly, regardless of what is said by the public as part of the rulemaking. That makes a mockery of the rulemaking process. The decision has been made and Venezuela has imposed a timetable. We question the legality of that action under the Clean Air Act and the Administrative Procedures Act.

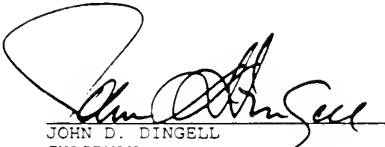
The State Department cable indicates that there have been several meetings and discussions with officials from Venezuela about this matter since last summer. The Committee requests a list, in chronological order, of all such meetings, including the identity of the participants, and all letters, memoranda, telegrams, and other relevant documents since last September in your files concerning the Venezuela matter. Please also explain the alleged discrimination claimed by Venezuela.

The cable states that the proposal "is consistent with the concepts discussed" with Venezuela last September. Please explain why those concepts were once rejected by the EPA and/or Venezuela last year and why they are acceptable to both at this time. The cable further states that any foreign refiner could cap its sulfur and olefin levels at the refiner's 1990 levels, if the relevant data are verified to EPA's satisfaction. We understand that such verification was a concern to EPA for several reasons, including data reliability. How has EPA overcome those and other concerns? Are sulfur and olefins the only pollutants of concern?


Please respond to this letter and our March 24 letter by April 20, 1994.

With every good wish.

Sincerely,



JOHN D. DINGELL
CHAIRMAN



MARJORIE MARGOLIES-MEZVINSKY
MEMBER OF CONGRESS

Page 3

cc: The Honorable Carlos J. Moorhead, Ranking Minority Member
Committee on Energy and Commerce

The Honorable Henry A. Waxman, Chairman
Subcommittee on Health and the Environment

The Honorable Thomas J. Bliley, Ranking Republican Member
Subcommittee on Health and the Environment

The Honorable Philip R. Sharp, Chairman
Subcommittee on Energy and Power

The Honorable Michael Bilirakis, Ranking Minority Member
Subcommittee on Energy and Power

Mr. Robert E. Rubin, Assistant to the President
for Economic Policy

Ms. Sally Katzen, Administrator
Office of Information and Regulatory Affairs
Office of Management and Budget

OFFICE OF THE UNITED STATES
 TRADE REPRESENTATIVE
 EXECUTIVE OFFICE OF THE PRESIDENT
 WASHINGTON
 20506

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MAY 17 1993



The Honorable John Dingell
 Chairman, Committee on Energy and Commerce
 United States House of Representatives
 Washington, D.C. 20515-6115

Dear Mr. Chairman:

This is a further response to your letter of March 25, 1994 on the matter of the Environmental Protection Agency regulations implementing the reformulated gasoline program of the Clean Air Act Amendments of 1990. Your letter requested a list of meetings since last summer between USTR and representatives of the Government of Venezuela or Petroleos de Venezuela, S.A. With this letter, I am enclosing a list of such meetings.

For your information, USTR staff also met with representatives of U.S. firms in the petroleum refining and marketing sectors on two occasions during this same period of time. In addition, the issue was discussed at two meetings before last summer: on January 5, 1993 EPA held a meeting with PDVSA and PDVSA counsel which a USTR staff person attended, and the Government of Venezuela raised the issue at a U.S.-Venezuela Trade and Investment Council meeting on April 23, 1993.

Sincerely,

Ira S. Shapiro
 General Counsel

Enclosure

LIST OF MEETINGS
BETWEEN USTR AND VENEZUELAN GOVERNMENT
OR PDVSA OFFICIALS OR REPRESENTATIVES
Summer 1993 to March 1994

December 3, 1993 EPA meeting with PDVSA counsel (Bill Scott and Mike Sherman of Collier, Shannon, Rill, and Scott); USTR staff person attended part of the meeting.

December 10, 1993 Venezuelan Energy Minister Parra and President-elect's emissary, Ambassador Sosa, meeting with USTR officials.

February 11, 1994 Consultations under GATT Article XXII between US Government and Government of Venezuela; USTR, State, and EPA officials attended.

March 11, 1994 Government of Venezuela meeting with USTR officials re GOV position on Article XXII consultations; State/EB official attended.



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 U.S. HOUSE OF REPRESENTATIVES

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 WASHINGTON, D.C. 20460

APR 11 1994

THE ADMINISTRATOR



The Honorable John Dingell
 Chairman
 Committee on Energy and Commerce
 United States House of Representatives
 Washington, D.C. 20515

Dear Mr. Chairman:

In response to your letters of March 21 and 25, 1994 on Clean Air Act rules for reformulated gasoline (RFG) as they apply to foreign refiners, I want to assure you that I understand your concerns. I am fully committed to maintaining the United States' status as a world environmental leader under this Administration, and I am equally committed to conferring with you and Members of the House Energy and Commerce Committee on the critical issues within your jurisdiction. Let me assure you at the outset that no final decision has been made regarding any amendments to the reformulated gasoline rule. I look forward to fully consulting with you, as well as considering public comment, with regard to what action, if any, should be taken.

As always, you have my assurance that the EPA will promptly provide all relevant documents to the Committee, along with responses to your specific questions. I firmly believe that we can work together to make sure that principles of environmental protection are not jeopardized while at the same time making sure that trade issues are managed fairly and consistently. The issues raised by the reformulated gas rule are complex and challenging, and EPA is committed to working with you on this issue.

Sincerely,

Carol M. Browner

Mr. DINGELL. It said in that letter—this is on March 25, and I will put that in the record, too—it said, “The U.S. letter includes a commitment by the U.S. to propose the reformulated gasoline rule by April 20, 1994 in exchange for Venezuela agreeing to withdraw a request for formulation of a GATT panel in Geneva, Switzerland, but no withdrawal of the GATT challenge.”

The Venezuelan reply indicates an acceptance of the U.S. offer, “without limitations or additional modifications,” if the offer is put into effect as a final regulation within a period of 5 months from March 22, 1994. And then it goes on to say, “Venezuela indicated it would reopen the request for a panel if the regulatory process is interrupted, or if at the end of 5 months, this question has not been conclusively resolved.”

Ms. KATZEN. That is consistent with my statement, yes, sir; that is right.

Mr. DINGELL. Now, the letter goes on to say this: “It appears that the State Department and the Environmental Protection Agency have entered into an agreement with Venezuela that cannot be changed even slightly, regardless of what is said by the public as a part of rulemaking.”

That makes mockery of the rulemaking process. The decision has been made and Venezuela has imposed a timetable. We question the legality of the action under the Clean Air Act and the Administrative Procedures Act.

Now, in response to that, I get a letter back from Carol M. Browner, dated April 11, in which she says, “In response to your letters of March 21 and 25, 1994, and the clean air rules for reformulated gasolines as they applied to foreign refiners, I want to assure you that I understand your concerns. I am fully committed to maintaining the United States status as a world environmental leader under this administration, and I am equally committed to conferring with you and members of the House Energy and Commerce Committee on critical issues within your jurisdiction.

“Let me assure you at the outset that no final decision has been made regarding any amendment to the reformulated gasoline rule. I look forward to consulting with you. As well as considering public comment with regard to what action, if any, should be taken.”

Now, the interesting thing is that here I have got a series of meetings, you have agreements with the Venezuelans, and the whole process starts. You can say whatever you like, and it may very well be that this is as innocent as a spring rain; but I have got to say the appearances are all wrong, and whether you like it or not, Ms. Katzen, it looks to me—and I suspect to the majority of the people who are sitting in this room, if they are not Venezuelans—that a deal was cut involving Venezuela, the State Department, perhaps EPA. And I am trying to figure out whether you folks at EPA were involved in the deal or not.

It kind of looks like you were, that certain things were going to happen, and that a certain kind of rule was going to be issued.

Now, I don't have any statement to make on the substance of the rule. But if the substance of the rule can be shown to increase NO_x loadings in parts of this country, and if it can be shown that the regular, orderly process required by the clean air law and the regular, orderly process required by the Administrative Procedures Act

was not followed, then I think we all have a problem that is going to be hard to explain to the people.

Now, what comments do you want to make?

Ms. KATZEN. I agree with you, that if there were a violation of the APA or the normal processes, there would be a cause for concern; and my testimony was that we took steps to avoid that there would not be that kind of inconsistency with applicable law, and that that was done by creating the process that would lead to a notice of proposed rulemaking without any kind of commitment on the final rule.

The very letter that you read from stated that Venezuela said that if it doesn't get what it wants, it would resubmit its request, and that contemplates, therefore, that EPA may not follow in its final rule what it said in the notice. I think that that is the best evidence that all that was agreed to was a notice and we now follow the public comment route to the final rule.

And I agree with you that the appearances are—

Mr. DINGELL. Would you observe with me, Ms. Katzen, that the notice was put in place after Ms. Margolies-Mezvinsky and I sent the letter down?

Ms. KATZEN. I didn't see the letter, but if the date was after—was before April 21, then it would have predated the notice.

Mr. DINGELL. It can be inferred—perhaps incorrectly, but inferred nonetheless—that what transpired here was they got the letter and then they decided that maybe just then they would issue a different kind of notice.

Ms. KATZEN. Mary? I—

Mr. DINGELL. Do you want to comment on that, Ms. Nichols?

Ms. NICHOLS. Let me just add something in addition to the letter that you read from Ms. Browner to yourself and Ms. Margolies-Mezvinsky.

I have copies of letters, which I believe were also furnished to you as part of your request for documents, from the Administrator to Warren Christopher and to Mickey Kantor on April 21 in which she says, "Today I have signed a notice of proposed rulemaking seeking comment on the appropriate environmental regulations for the importation of foreign reformulated gasoline into the United States. On December 15 I signed a final rule that included a provision tying imported gasoline to different criteria than that of domestic."

And then, skipping through a bunch of this, I just want to read this: "In light of concerns expressed by Members of Congress over this approach and the process leading to it, I am writing to be certain that you are fully aware of EPA's regulatory processes. As with any rulemaking, we will consider all public comments before determining whether to issue a final rule, and the content of any final rule. I want to reiterate that I have made no final decision on this matter or prejudged its outcome. I can make no guarantee that I ultimately will decide to sign a final rule at the conclusion of our rulemaking process, or that a final rule would be identical to a proposal." And then she signs.

I would just like to say, that is where I believe we are now.

Mr. DINGELL. And that letter was sent after we—after Ms. Margolies-Mezvinsky and I sent the letter down to EPA?

Ms. NICHOLS. That is correct.

Mr. DINGELL. And we are delighted that we were able to have this favorable impact on EPA. We think that that is good.

Mr. SHAPIRO. Mr. Chairman, I weighed in hesitantly, having had, possibly, the benefit of not having been involved in the initial meeting.

Mr. DINGELL. And you should be very delighted about that. My advice to you is that you should be very careful about getting in too deeply in this matter, and let those that are now deeply in it to remain deeply in it without your assistance.

Mr. SHAPIRO. I understand that that would be the dictate of common sense, but I do have to say, Mr. Chairman, on your last point, it is quite clear from all of our documents, including documents that were written well before your letter and Ms. Margolies-Mezvinsky's letter, that the agreement that was reached had to do with a notice of proposed rulemaking; and you have those documents and certainly can refer to them, but—

Mr. DINGELL. Somehow or other I am not as comfortable about the fact that you just related to a notice of proposed rulemaking and didn't relate to the making of a rule.

Mr. WAXMAN. Mr. Chairman?

Mr. DINGELL. The Chair has exhausted his time some while back. I am going to have to yield to other members.

Mr. WAXMAN. Would you yield to me to pursue this from a different perspective?

Mr. DINGELL. Sure.

Mr. WAXMAN. I think the Chair has done a very clear job of expressing to all of you involved how one might look at this situation as an inappropriate way for EPA to be establishing its proposed rulemaking under this kind of pressure.

But, Mr. Shapiro, I want to look at this from the perspective of GATT and what those implications might be. I think it looks terrible.

After all of the statements that this administration has made about how it will fight to defend our health and environmental protection laws if they are challenged under trade agreements, Venezuela threatens to challenge probably the single most important program for bringing cleaner air to the Nation's cities, and the response is to immediately put up a white flag.

Only 3 months ago—3 months earlier, EPA had, in a final rule-making action, expressly rejected Venezuela's argument, citing problems in enforceability and substantial increases in nitrogen oxide pollution, a central cause of smog in the northeast. In fact, EPA found that gasoline produced under this special baseline sought for Venezuelan oil would produce as much as 13.9 percent greater nitrogen oxide emissions than average U.S. reformulated gasoline.

Now, several points in your written testimony: For example, in the first two paragraphs on page 3 you refer to the EPA rules treating foreign refiners differently than domestic refiners. The implication seems to be that the rule may be discriminatory and may therefore violate GATT. I would like to clarify this matter further.

The EPA rule treats baseline data from foreign refiners differently than baseline data from domestic refiners because of legiti-

mate concerns that such data is less verifiable and because individual baselines and foreign refiners would be more difficult to enforce. And, Mr. Shapiro, am I correct that it would not be a GATT violation to treat baseline data for foreign refiners differently in the data, and the enforcement difficulties are, in fact, different?

In other words, it is not, in my understanding, a GATT violation to treat foreign and domestic refiners differently if there is a basis for such distinction; isn't that correct?

Mr. SHAPIRO. Congressman, it is certainly not a GATT violation to treat them differently if there is a sufficient justification in terms of health and the environment. The question, however, that had been debated within the administration, and the question that PDVSA, the domestic oil industry and others had been debating through 1993, was whether it was possible to define a baseline for a foreign refiner.

And our concern throughout, and the discussion we had with EPA was that if to conclude that, you need to treat them differently to further the Clean Air Act requirements, then that is fine. However, the question has been, is it necessary to treat them differently? If you concluded it wasn't necessary and that there was a way for them to verify their baseline, then it becomes a difficult GATT case. And the only—frankly, the only thing that we—you know, that we have been talking about here is the fact that throughout 1993, EPA tried to grapple with that issue.

Mr. WAXMAN. And they came to a conclusion about that issue, didn't they, in December? Then you get these documents—I want to just hold up this document. Most of this is blank white space. I don't even have the full text of it, because it is considered too top secret for people to be able to read, especially those of us who wrote the law.

But here what we do have available to us is that there is an encouragement for Venezuela to come back and threaten—refrain from threatening a GATT challenge in order to box EPA/State's concern with Venezuela. The U.S. Trade Representative is worried about a GATT challenge, and so everything is all sort of flipped around, and now EPA is proposing a rulemaking to see if maybe they should change their mind.

But the important thing, from a GATT perspective, is this was an ideal opportunity for the United States to go to the GATT and demonstrate our resolve to stand by our environmental rules. The RFG rule is a masseur to help protect our health here at home rather than on the high seas, like the tuna/dolphin decisions.

The EPA rule finally seeks to treat unverifiable baseline data differently from data that is verifiable. A good case can be made that it is exactly the kind of provision for protecting domestic health and the environment that GATT Article 20 was intended to allow. Instead—

Mr. DINGELL. If the gentleman would permit, I want to get back to the documents here, because I just found another one. I want to thank the gentleman.

Mr. WAXMAN. Let me just finish this point.

Mr. DINGELL. I don't want to argue policy on this; I want to argue what happened.

Mr. WAXMAN. I just want to finish this one point, and then I will be through and I won't even ask for another round. But I think I can complete my thought here.

What I am trying to find out, from a GATT perspective, instead of, at the hint of a challenge, we assure Venezuela the rule will be changed and EPA's final rule will be able to turn.

Mr. Shapiro, I don't think that other countries are likely to overlook this fact, that Venezuela got a big reward for its threatened GATT challenge, and I think that is a signal that this reversal sends to the international community. If we are going to leave this issue with this kind of appearance, it is a message that it is open season on U.S. laws, and given this kind of performance here, how can I and others now be expected to trust that the administration will show any resolve in defending other laws, such as California's Proposition 65, the nutrition labeling of the Education Act, or any others on the long list of laws that are likely to be challenged under this international agreement.

Mr. SHAPIRO. Congressman, we have not only defended vigorously the tuna/dolphin case, which you mentioned and we defended aggressively the CAFE cases, et cetera, and we intend to vigorously defend all health environment and safety laws passed by the Congress of the United States. This was a question that was being considered by EPA through 1993 about how to handle the question of Venezuela's baseline. And we counseled them and this becomes somewhat difficult because I may yet have to try to defend whatever final rule comes out, but we counseled them and they were fully aware that the strength or weakness of the GATT case turned on the strength or weakness of the justification for differential treatment and it is not unreasonable for them to consider that in terms of promulgating the rule, but the overriding thing for Ambassador Kantor and us was what the Clean Air Act required in their judgment.

Mr. WAXMAN. First of all, didn't they consider that this December, and second, under this kind of a threat, what signal does that send to the rest of the world if we are going to then put the pressure on EPA.

Mr. SHAPIRO. But, Congressman, they did consider it in December, but you know from Ms. Nichols' testimony that she testified that her staff had reached a level of comfort that Venezuela's baseline could be verified. She then said she hadn't been there long enough and the focus was on the other parts of the rule so she hadn't reached that level of comfort yet. Therefore on December 15 they would—they issued a statement saying that this issue was still under discussion.

This was no—you know this was no eleventh hour intervention. This was an issue that had been discussed for years and clearly they had some concerns that mirrored some of our concerns.

Mr. WAXMAN. Well, I just ask you to take a look at this in light of that cable that was sent by the State Department suggesting there was a quid pro quo if they didn't bring a GATT challenge that EPA would then come up with a different proposed rule as long as we told the Venezuelans not too publicize it. I raise that, Mr. Chairman.

I thank you for this opportunity to raise it because not only does this all look very bad from a perspective of EPA's procedures, following the Clean Air Act mandates, but it is ominous to me in terms of what it is going to mean for the future of American laws that may be challenged, in fact, being encouraged to challenge under GATT because of what has gone on here.

Mr. SHAPIRO. Well, Congressman, I know that we won't get into this much more, but I am happy to spend whatever time with you, and I know Ambassador Kantor would like to talk to you, about that and try to address those concerns, because I don't think the issue of a rulemaking that was trying to grapple with the difficult trade and environment issue can be compared to the—an existence of a statute that has already been passed or a State law like proposition 65.

Mr. WAXMAN. Thank you, Mr. Chairman, I yield back.

Mr. DINGELL. Now, here is the sequence of things. On March 14, the meeting that we have been discussing takes place. We sent a letter a little after that in this March. I get a response from Ms. Browner at EPA on 11 April and Ms. Nichols on March 2, 1994. You got a memo from Mr. Dick Wilson to you and that states as follows. "State and trade rep under heavy pressure re GATT pressure from Venezuela. As a result they want the administration to decide quickly whether to settle with Venezuela or not. We are working on a joint options paper with them. Latest version is attached. State has contacted NEC and apparently there will be a meeting on March 14. This is a meeting that we have been discussing earlier.

"At 1:30 p.m. to discuss the issue. Our options are basically those we discussed when we issued the final rule. Now, that final rule was issued back in December. PDVSA has offered to cap imports under an individual baseline to 1990 levels as they did before. They will not agree to other limitations that would assure air quality levels equal to our final rule." Last sentence I am going to repeat. "They will not agree to other limitations that would assure air quality levels equal to our final rule."

Now, what are the other limitations that Venezuelans could not agree to that would assure equal air quality. Could you tell us what those are please, Ms. Nichols?

Ms. NICHOLS. I think so. As we have been discussing, but I would just like to bring us back, if I could for a moment, to what the underlying issue is here, under the reformulated gasoline proposal final rule, sorry, the final rule for the 3-year phase 1 period, U.S. manufacturers can apply for a separate baseline. Their baseline could be higher. It could be cleaner or it could be less clean than the average, the U.S. average.

Mr. DINGELL. Well, they wanted a baseline which gave them dirtier gasoline which adversely impacts our air quality.

Ms. NICHOLS. Venezuela's gasoline is on average, for sulfur and olefins, dirtier than the average U.S. gasoline. That means there is some U.S. gasoline which is dirtier than Venezuela's. There is some that is cleaner. They are below the middle. They are below the average.

When Venezuela approached us about the issue of applying for a separate baseline, we were concerned. I was concerned, I believe

my staff was concerned that any separate baseline treatment for Venezuela would result in less NO_x control, therefore more NO_x being emitted in the reformulated gasoline program than if we held Venezuela to the statutory baseline. There is no dispute about that. But the question was what could we do to alleviate that effect if we were going to treat them the same way as a domestic.

Mr. DINGELL. And what you decided to do is give them a baseline which let them function dirtier.

Ms. NICHOLS. If we were going to treat them equally because we couldn't justify discriminating against them, the issue was in a way that we could limit that or reduce the amount of increase in NO_x from using Venezuela's own baseline. One of the proposals that I believe the staff floated and that Mr. Wilson referred to in his memo was that Venezuela might voluntarily agree to reduce other parameters of their gasoline so as to give an overall cleaner impact in the United States. And it is that, as I understand that memo, as I recall the discussions that they were declining to do. They did agree to cap their—

Mr. DINGELL. That was one of the limitations they declined to do.

Ms. NICHOLS. But they agreed to a cap. They did not agree to do even further reformulations in order to make their gasoline even cleaner because their position was that their gasoline for that 3-year period would be at least as clean as the average of other gasoline that was being sold and I would just say—

Mr. DINGELL. But you had no way of checking that, because you couldn't go down to look at their books and the only persuasion you could lay on this matter was to address it at the importer level; isn't that right.

Ms. NICHOLS. No. Prior to the time that we went out with the proposal, the staff was convinced and they convinced me that they could get audited data as part of any petition that they would review that would satisfy them as to whether the baseline was met or not.

Mr. DINGELL. We will come to that. We will come to that at a time later because I want to recognize other members. The Chair is going to recognize the gentleman—Mr. Hastert is not here. The chair is going to recognize the gentleman from Ohio.

Mr. BROWN. Thank you, Mr. Chairman. I want to follow up a little bit on Mr. Waxman's questions and this hearing has been disturbing in the sense of kind of where we as a country, where we are going as a country. Numbers announced yesterday in the Commerce Department whether we have a—we had a \$8 billion trade deficit for the month of April. Not particularly good news, putting it mildly and at the same time we seem sort of in this race to the bottom on environmental standards, public health and labor standards and wages and even tax laws.

There seem to be that kind of underlying our trade directions. U.S. law seems to elicit, as this Venezuela issue shows, U.S. law seems to elicit trade threats, as Congressman Waxman said, as U.S. law seems to elicit these trade threats and Venezuela seems to be successful or there is certainly discussion of their success in making happen what they wanted to happen with their trade threats. What that sends around the world is a message that sends to others with the imminent if in fact it is approval by this body

of GATT, our standard of living in a sense seems to be almost an obstacle to free trade as we, one thing after another happens on these kinds of issues and I look at where we have come as a country.

I live in a city that is on Lake Erie west of Cleveland, the City of Loraine and Lake Erie has, if any of you saw it 15 years ago and see it today, you see what the society has done people working together and cleaning up part of the greatest body of freshwater in the world. The Chairman lives near that lake, near the same body of the Great Lakes.

What it has done for the country and look at what CAFE standards have done. You look at what food safety standards have done. You look at public health laws and worker safety and all the things that this Nation has done so very well year, after year, after year and it has been a body of law that we, with some consensus have together over a—going back to the book, “The Jungle,” and where we were and where we have come. Whether it is food safety or coal mines and one thing after another and, Mr. Shapiro, your comment was so perfect when you said earlier, you said the notion of that neutral statutory scheme could be challenged so many years after its enactment, that was the quote, and you went on to say I didn’t get the direct quote after, but that is a troubling sort of phenomenon that we have for this country for so many years done that so very well, put together this public health consensus to make all of our lives better and that standard of living is more and more seen as an obstacle to free trade if the way that the free trade fundamentalists in this country seem to be thinking about all of this.

My question is, how do you—especially Ms. Nichols and Mr. Shapiro and Mr. Watson, especially the three of you, how do you use your offices to make sure that U.S. sovereignty is not challenged in terms of those issues I was just discussing and how do you use your offices to prevent that race to the bottom?

Are standards being lowered and our quality of life and our standard of living not even so much—not even the standard of living so much materially, but in terms of protecting the public, how do you use your officers? It is a philosophical question of practices but a practical one.

How do you use your offices, the three of you, to make sure that doesn’t happen with the next NAFTA or with GATT or with using super 301 and all the tools that we ought to have in our trade arsenal?

Perhaps, Mr. Shapiro, you start with that.

Mr. SHAPIRO. Mr. Brown, I would basically agree with you that a lot of things have happened in the country in the last 20 or 30 years that don’t—you know, that don’t make us happy in terms of direction, but that the body of laws, health, safety and environment laws that we have on the books is a very important thing for us. And that we are committed—on NAFTA, we disagree—but we are committed to trying to maintain our standards and raise other people’s standards and not engage in a race to the bottom in terms of health and environment and safety.

We spent an extraordinary amount of time in NAFTA and we are prepared to do it in GATT to ensure that those standards would remain high and what I was trying to suggest to Congressman

Waxman was that, you know, those statutes on the books and our ability, you know, our willingness and our ability to defend them and to keep our standards is distinctly different from a rulemaking where we are simply considering whether a foreign or a domestic refiner ought to be treated differently.

With respect to our trade policy generally, we believe that it is important that we maintain an open market because we are fighting to maintain everybody to open up other people's markets and, frankly, there was a period of time that we went through as a country where our markets were open and others were not comparably open and we are trying to deal with that disparity.

Mr. BROWN. Ms. Nichols.

Ms. NICHOLS. Yes. Mr. Brown, let me just say two things.

First of all, I believe that my obligation in every discretionary area that I have under the Clean Air Act is to try to adopt standards that are progressive; that is, that implement the Clean Air Act in a way that is protective of public health as possible, as well as to make sure that other important ingredients of American life are maintained.

With respect to how this plays out in the rest of the world, we do engage very actively in a variety of measures to try to make sure that the rest of the world, both is aware of better U.S. environmental technologies and higher U.S. standards and that we advocate implementing those wherever possible. We support activities in Europe and in other forums to try to make standards go up to make them more protective of public health and to reflect what we have learned here.

We have been involved in various initiatives to help disseminate environmental technologies that have been pioneered in this country because of our strict regulations. Some of the regulations that I indicated up here, for example, are leading directly to innovations and to products which were now being marketed abroad and we are helping to try to support that growth in the U.S. economy through advocacy of strict standards and good technologies abroad.

We take that issue of our role in the rest of the world very seriously. We are not at all interested in trying to diminish our rules in order to make them more accessible to foreign competition. My only interest in proposing the rulemaking that I did on the foreign refiner baseline was to make sure that we had considered adequately and fully all the implications with regard to fairness and to supply as well as to the environment. And I assure you that the administrator is going to look at this very closely before she makes any decision on whether to go forward with a rule.

Mr. BROWN. Mr. Watson.

Mr. WATSON. Yes, Mr. Brown. You have asked some provocative questions. Needless to say, we in the State Department and other embassies overseas are working hard to support the efforts that were described here by Ms. Nichols and Mr. Shapiro. Let me give you a couple of examples for you. We are struggling, for instance, to protect the intellectual property rights of American manufacturers, universities and others that produce the intellectual genius that drives this country forward in technology and make sure that technology is not stolen by others overseas.

We think that makes a difference here in the kind of country we have. We support environmental improvement overseas and, in fact, that that will be one of the salient themes at the Summit of the Americas we will be holding in Miami in December. Vice President Gore is deeply involved with this trying to encourage other countries to adopt environmental standards that are similar to ours, cooperate with them in making sure that they can achieve those things.

We are vigilant overseas working with the domestic agencies and trying to discover when there are products that are coming in from overseas that do not meet our standards. We, of course, deal with the migration question, a very, very difficult one for a country like ours built on waives of immigrants, but we have to be able to manage that in a way our society can absorb that.

We work on that question every day and, needless to say, one of the most important ones is the drug problem where we do the best we can overseas with relatively limited resources to try to encourage other governments and work with them to keep the production and trafficking of narcotics down as best we can to keep it out of our country and from poisoning our people. So those are just four or five areas that come to my mind right now but we are working to try to help improve and maintain the quality of life that Americans deserve.

Mr. BROWN. Ms. Tierney, did you want to add something?

Ms. TIERNEY. Could I add just a brief comment? Mr. Watson has indicated that the State Department works with other agencies in looking at international markets. A good example is our work together on looking at international energy markets and looking at trade barriers and such as tariffs or other imperfect market opportunities that preclude foreign participation such as the participation of U.S. firms in those markets.

We spend a great deal of time in looking at those market assessments and consult with foreign governments about how we can use our own national treatment policy to advance similar national treatment policies in those community countries.

Mr. BROWN. Thank you, thank you. Mr. Chairman.

Mr. DINGELL. The time of the gentleman has expired. The Chair observes that there is a vote on the Floor. We will recess. We will return here at 2:50. The committee stands adjourned until that time.

[Brief recess.]

Mr. DINGELL. The subcommittee will come to order. The Chair recognizes the gentlewoman from Pennsylvania.

Ms. MARGOLIES-MEZVINSKY. This is a question for Ms. Nichols. It is a little—it is a different direction than we are now moving down a different path, a different tributary. It is my understanding that on February 28 of this year EPA provided a completeness determination to the Pennsylvania Department of Environmental Resources, DER. That was for the State Implementation Plan, SIP, for reasonably available control technologies, RACT.

The commonwealth, using its rulemaking procedures, took the appropriate action to complete the promulgation of the regulations. However, almost 5 months later, EPA has indicated in court documents that it plans to reconsider its completeness determination

before July 1. It is also my understanding that the issue of concern relates to the case-by-case RACT approach. These regulations were approved by the commonwealth's quality board on November 15, 1993 and EPA provided documents on December 15, but did not express concern related to case-by-case determinations.

In fact, EPA has provided written comments four times in 2 years regarding the RACT SIP and never raised a concern related to the case-by-case determinations. My first question is have I accurately and fairly described EPA's actions in regard to the current status of the commonwealth's RACT SIP?

Ms. NICHOLS. I believe that your characterization of that is correct, yes.

Ms. MARGOLIES-MEZVINSKY. How can EPA justify its current action 5 months after the determination of completeness and 2 years of discussion with the Pennsylvania DER, which time the EPA never raised the issue of case-by-case determinations of RACT; that is, at least they didn't raise those issues in writing to the commonwealth?

Ms. NICHOLS. I think that the situation we are in with respect to the Pennsylvania NO_x RACT determination is in some degree of uncertainty at the moment because of the fact that we were sued in the Third Circuit Court of Appeals on that decision and are evaluating what to do in light of the allegations that were raised in the litigation. I have been briefed on the subject and we agreed, as a result of the briefing, to reconsider in order to determine whether there was a basis for settling the litigation.

The specific concern with the legality of our position in Pennsylvania on the case-by-case NO_x RACT is that EPA has taken an apparently inconsistent position. This was done on the regional level. One of the things that makes administering the Clean Air Act a challenge as well as interesting is that we do have regional administrators who deal directly with the States on a number of policy issues. This is one where apparently different regions had issued different interpretations on the same section of the Clean Air Act and it was important to me, as well as important to our position with the Department of Justice, that EPA itself reevaluate the decision and which of these conflicting interpretations we were going to pursue, so that is where it is right now.

Ms. MARGOLIES-MEZVINSKY. So—

Ms. NICHOLS. We informed the State of Pennsylvania. Is that the case? I know they are unhappy. They would like an unequivocally holding to the previous position, but we didn't feel that we were able to do that.

Ms. MARGOLIES-MEZVINSKY. It is also my understanding that EPA's February determination resolved the threat of mandatory Clean Air Act sanctions facing Pennsylvania which EPA was otherwise obligated to impose on July 15 of this year. However, if EPA rescinds the completeness determination, Pennsylvania is then facing a July 15 sanction that would require the two-for-one emission offset requirement which is actually a ban for Pennsylvania on new construction.

Ms. NICHOLS. Yes, and that is one of the very important considerations that we are taking into account with respect to anything we would communicate to the court or any decision we would make

on this issue. It is not EPA's intention and I personally will do everything I can to make sure that we are not putting Pennsylvania in jeopardy of immediate sanctions as a result of misinterpretation or advice that they were given by EPA.

Ms. MARGOLIES-MEZVINSKY. That would mean that there wouldn't be any more Federal funds for highway construction or those things, correct.

Ms. NICHOLS. We would do our best to make sure that would not happen as a result of any actions we might take.

Ms. MARGOLIES-MEZVINSKY. How do you expect the Commonwealth of Pennsylvania to address any new concerns raised by EPA in effect in only 10 working days? I mean there has been a long period of time obviously that has transpired with regard to these issues. And how can EPA move forward with these actions when the Department of Environmental Resources has believed because EPA told them so that everything was OK with the RACT SIP?

I mean I hear in your answers that you are trying to solve this. Before you there are—there is—it is very time-sensitive at this point.

Ms. NICHOLS. I believe that if after this brief period of reconsideration of our position, which we have indicated we will complete, I believe, by the end of this month, we were to decide that we could not continue with our current position on the Pennsylvania NO_x RACT SIP that we would have to find a way for the State to proceed to fix the SIP during which period of time they would not be subject to mandatory sanctions and that is—

Ms. MARGOLIES-MEZVINSKY. So they would be given a grace period.

Ms. NICHOLS. Exactly.

Ms. MARGOLIES-MEZVINSKY. Do you plan to do this with other States?

Ms. NICHOLS. We don't have any other States that are in precisely the same situation as Pennsylvania with respect to the timing and each of the rules are slightly different, which is one of the reasons why this is still under review at the moment, but we have had other States where this type of RACT rule without specific limits has been included.

The difference is Pennsylvania is the only State that I am aware of where their idea was that they would submit a separate case-by-case RACT determination for each and every source as part of the rulemaking, but in, I believe, one other State, at least, that I am aware of in Georgia, they are interested in doing something similar using the Title V permits as a mechanism for making those RACT determinations and so that is one of things that I am trying to address before we make a final decision about Pennsylvania.

Ms. MARGOLIES-MEZVINSKY. And for our purposes, who is the best person, you, for them to get in touch with?

Ms. NICHOLS. With respect to EPA's decision-making in this process, on my staff, it is the Office of Air Quality Planning and Standards that is addressing this issue and the director of that office is John Seitz.

Ms. MARGOLIES-MEZVINSKY. Thank you very much. Thank you, Mr. Chair.

Mr. DINGELL. The time of the gentlewoman has expired. The gentleman from Illinois, Mr. Hastert.

STATEMENT OF HON. J. DENNIS HASTERT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. HASTERT. Thank you, Mr. Chairman. Before I start my questions today I want to thank you and certainly Mr. Finnegan from your staff for including the Employee Trip Reduction Program on the agenda for today's hearing.

As you know, this is an issue of critical importance not only to me and other northern Illinois Members, but also to Members from other States, some of whom serve on this committee.

For Illinois alone, the Employee Trip Reduction Program could affect as many as 5,400 employers in the northern Illinois area with about 2 million employees at an estimated cost of between \$77 to \$300 million annually. If you project that out, it would be \$2.8 billion over the 14 years of the projected life of the program.

Like you, Mr. Chairman, I support the Clean Air Act goals, but we need to scrutinize this expensive program and consider the other practical options that will reduce emissions and allow us to meet the goals. Again, Mr. Chairman, thank you very much for your help and now to my questions.

Ms. Nichols, I think this falls pretty much in your purview here. What, in your opinion, is the primary goal of the Clean Air Act? Is it to improve air quality or to regulate automobile use? If it is to improve air quality, why should EPA care what means the States employ to reach attainment?

Ms. NICHOLS. Well, that is a very good question. The answer, obviously, is that we believe that the principal goal of the Clean Air Act is to achieve health-based air quality standards throughout the United States to deliver those benefits to the people of this country. In carrying out the mandates of the Clean Air Act, EPA has strived and is striving wherever possible to interpret those mandates with the maximum degree of flexibility.

The provision of the law that you are referring to, which is the employee trip reduction provision, is a very specific section of the 1990 Clean Air Act amendments which requires achievement or at least plans by employers to achieve specific levels of trip reduction on the part of their commuting work force. It is different in the sense that it is very prescriptive about what the goal is and the goal is to change the ridership, the average ridership patterns, not to achieve a specified level of emissions reductions.

That particular piece of the provision is in the statute. What we have been trying to do is to find every possible way to interpret that provision consistent with what we believe the underlying intent of Congress was which is to get the air quality reductions, but we are trying to proceed carefully not only because we want to be within the letter of the law, but also because we believe there was another purpose expressed for this particular provision at the time it was passed and that is that unlike other measures which are dealing just with emissions, this section deals with ridership, with VMT, vehicle miles traveled or trips and we believe that the reason for this provision, which is a pretty—it is a small piece, as you know, of the overall act, even though it has this potentially major

impact that you are describing, we think that the purpose of it was to try to deal with the growth in vehicle miles traveled, which is in many cases wiping out the benefits of some of the very expensive technological controls that we have placed on vehicles and on gasoline.

We have done a number of things with the Surface Transportation Act and the conformity requirements to try to make sure that our transportation programs are not undermining our clean air goals, but we still have a long way to go. This particular program, if we can interpret it and allow the States and local governments to interpret it flexibly enough, provides us with some opportunities to pioneer some demonstration programs that will help alter people's travel patterns without imposing unnecessary mandates or costs on them and we think that if we can do that, that it will have some benefits, but, frankly, it is a very difficult and problematical provision of the law.

Mr. HASTERT. I appreciate your position of trying to find innovative ways and especially ways to try to interpret this program so it doesn't impose really ominous costs or impositions on people trying to work.

One of the things that I would like to do Mr. Chairman, is to submit a letter that I have for the record. Recently, Administrator Browner responded to a letter from Senator Lautenberg, stating that the agency is committed to providing for maximum flexibility in the Employee Trip Reduction Program or ECO Program.

In fact, Administrator Browner states that the EPA would allow States to improve employer plans that focus on reducing trips during the season of high pollution levels. This, of course, would primarily apply to the summer season when ozone levels are high. This action is a step in the right direction, but why stop there? What is EPA's position on episodic or stand-by emission controls, controls that kick in only when air quality standards threaten to be exceeded?

Ms. NICHOLS. We have—Mr. Hastert, we have indicated to States that have asked us about this that we are willing and agreeable to seeing them try these types of programs if they believe they have a mechanism for making them work, so we have tried to be encouraging to people who think they have a way of implementing a stand-by program.

We do have two concerns. One, obviously, is the practical one of can you get the information out in time for people to actually change their plans on any given day and the other has to do with the limitations on our predictive capabilities.

One of the things, unfortunately, that we have found in the past is that we are not terribly good at knowing when there is going to be a smog alert day. We can be hovering on the edge of it because of bad weather and on a day when you think it is going to go over the top it doesn't; yet on another day when the weather isn't quite as bad, it turns out you have an ozone alert. And no one knows for sure exactly how to predict it.

That is why we moved in the direction of the seasonal approach because we felt if you could bracket the smog season and put the program in place for that period of time, you would have it covered.

I would just also like to say that this program is one that, although it is mandatory that these plans be developed, there are no sanctions if the average vehicle ridership levels are not achieved. In other words, I hate to say that we are trying to do something that has no effect, but in fact we are asking people to do something experimental and I think the law was cleverly written in the sense that it isn't putting people in jeopardy of fines or other penalties if, in fact, they can't make it.

Mr. HASTERT. I appreciate your answer on this in trying to find different ways to implement the program. In your opinion, does Administrator Browner currently have the necessary authority to approve State implementation plans or SIPs that would allow employers to implement ECO programs on an episodic basis and let me go back to one statement she made.

I am from Illinois. We understand snow days in Illinois. All of a sudden we close down the system and people don't go to work and they don't go to school. This is the other side of this issue. In the summertime, when ozone alerts are in place, we understand the weather conditions. If we had to shut down 5 or 6 days in the summertime and implement these extraordinary procedures I think that would be economically much more acceptable for workers and employers than trying to implement them for a whole year or entire season at a time. So I think we can understand that and put those procedures in place on those days.

My question to you, does Administrator Browner allow these types of changes on an episodic basis?

Ms. NICHOLS. I don't think we have specifically asked that question at this point and so I wouldn't want to give you an answer now. I think what we have said to the States is we encourage you to try to develop such a program if you believe you can make it work and it will meet the goals of the statute, we will work with you to try to get it approved.

Mr. HASTERT. Well, that is something that is important to me. I think we would like to work with you to try to develop such a program. I know that the Act's provisions do not allow episodic controls to apply to smokestacks, but do not disallow them for clean air and automobile emissions.

Ms. NICHOLS. There is some case law and some history on the issue of intermittent controls on stationary sources which I know gives our lawyers great concerns about whether episodic controls could be approvable or not and that is why I am being careful about saying whether we could approve it or not because regardless of our desires, in this instance we would also be bound by their interpretation.

Mr. HASTERT. As you may know, there is some dispute in Illinois about our classification and both the State and Region 5 agree that some of the monitors were not properly calibrated and there were some problems there. While I won't get into the details of the error here, I do want to ask you about the margin of error deemed acceptable. It is my understanding that the policy of a plus or minus 15 percent margin of error in an air-monitoring area was established in 1977 for the purpose of area designation. The margin of error was trying to compensate for what we didn't know.

Additionally, this error was defined to correct for unknown error, as I said, not for those which can be identified. With the 1990 amendments narrowing the ozone categories, the significance of even minor area errors can now have a large economic impact on affected areas without corresponding environmental benefit. Is there any plan to revisit this arbitrary margin of error issue?

A case in point, this does make a difference. There was one monitor in our area that wasn't calibrated that had a 57 or 58 percent differentiation and it has thrown the whole area into a severe ozone nonattainment area.

Ms. NICHOLS. I appreciate the impact of what you are saying and, obviously, these are matters that can make a big difference in terms of their effect on a region. My understanding is that EPA did a field study in 1991 that looked at the issue of reclassification and that the request of the State of Illinois is currently under review within Region 5 and that is where it is right now.

If I can help by getting any more information on that I would be happy to give it to you.

Mr. HASTERT. A lot of this stems, first of all, on the plus or minus 15 percent and the margin of error because we think that has kind of thrown us into a situation that is not justifiable. If we could start to work out some of the problems on these episodic issues and we can work this problem through on an episodic basis where, obviously, it is not an issue year round or not even an issue most days of the year. We really look forward to working with you on this.

Mr. Chairman, I would like to enter this letter into the record.

Mr. DINGELL. Without objection.

Mr. HASTERT. Thank you very much for your cooperation and for allowing me to bring this issue up today. I appreciate it.

[The letter follows:]

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COMMITTEE ON
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COMMITTEES

SELECT COMMITTEE ON
HUNGER

July 8, 1994

The Honorable Carol Browner
Administrator
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Administrator Browner:

Pursuant to the recent hearing held by the Subcommittee on Oversight and Investigations regarding the Clean Air Act, attached are the additional questions that I stated that I would submit to the Agency for written responses after the hearing. Please provide me with the information requested by Monday, July 18, 1994. My office address is 2453 RHOB.

If you have any questions regarding this request, please notify my legislative counsel, Charli Coon. Charli's telephone number is 5-2738.

Thank you for your attention to this matter.

Sincerely,

J. Dennis Hastert
Energy & Commerce Committee

cc: The Honorable John Dingell
Chairman, Energy and Commerce
Committee

Questions Submitted for the Record
Subcommittee on Oversight and Investigations
by J. Dennis Hastert
June 22, 1994 Hearing

1. Referring to the 25% increase in APO (average passenger occupancy), can you refer me to any scientific studies that document the feasibility of this particular standard?
2. In a recent Washington Post op ed piece (May 30, 1994) Ms. Browner stated "We recognize the need to move beyond one-size-fits-all regulations...". However, EPA requires that every extreme and severe non-attainment area increase vehicle occupancy (i.e. reduce automobile trips) by the same percentage (25%) regardless of actual air quality conditions and notwithstanding circumstances that differ significantly in various areas. For example, last year Chicago reported no ozone exceedances whereas Los Angeles had 143 exceedances during that same time period. Yet, both locations are required to reduce vehicle usage by the same amount. Does such an arbitrary approach make sense in light of the demonstrably varying conditions within any particular non-attainment area?
3. In 1991, the USEPA removed the Kenschosha County air monitoring station from the Chicago ozone non-attainment area. Does this mean that, for monitoring purposes, these two air monitoring stations are no longer used to measure the air quality of the Chicago area?

If this decision had been made in 1988, the Chicago area would have been classified as a serious, rather than severe, non-attainment area, based upon data from the remaining 22 monitoring stations in Illinois and Indiana. Isn't that correct?

If so, USEPA has modified the baseline upon which the Chicago area's environmental programs are based. Such a change will permanently "skew" future measurements against this baseline. Isn't that true? Please explain why or why not.

4. Administrator Browner has been quoted on many occasions as wanting to reduce the economic impact of EPA regulation on industry. However, EPA has estimated the cost of the ECO program nationwide at from \$1.2 to 1.4 billion per year (Employee Commute Options Guidance, December 1992). Given the very modest reductions in vehicle emissions achievable through employee trip reduction programs (on the order of 1-2%, according to the Joint DOT/EPA Report to Congress, August 1993), as compared to their cost, how do you justify going ahead with this program?

EPA's Responses to Questions from the Honorable J. Dennis Hastert
Pursuant to the June 22, 1994 Hearing before
the Subcommittee on Oversight and Investigations

Question 1:

Referring to the 25% increase in APO (average passenger occupancy), can you refer me to any scientific studies that document the feasibility of this particular standard?

Answer:

In setting the 25% target in the Clean Air Act Amendments of 1990 (CAAA), Congress drew on the example of the South Coast Air Quality Management District (SCAQMD) in California. Three Average Vehicle Ridership (AVR) targets, based on location within the District were fashioned to result in approximately a 25% increase in average vehicle ridership in the Los Angeles, San Bernardino, Orange and Riverside Counties. To date, studies undertaken by the SCAQMD have shown an increase in AVR, but no area within their jurisdiction has yet achieved the 25% increase.

Question 2:

In a recent Washington Post op ed piece (May 30, 1994) Ms. Browner stated "We recognize the need to move beyond one-size-fits-all regulations...". However, EPA requires that every extreme and severe non-attainment area increase vehicle occupancy (i.e. reduce automobile trips) by the same percentage (25%) regardless of actual air quality conditions and notwithstanding circumstances that differ significantly in various areas. For example, last year Chicago reported no ozone exceedances whereas Los Angeles had 143 exceedances during that same time period. Yet, both locations are required to reduce vehicle usage by the same amount. Does such an arbitrary approach make sense in light of the demonstrably varying conditions within any particular nonattainment area?

Answer:

Under the CAAA, Congress required that all severe and extreme ozone nonattainment areas and serious carbon monoxide nonattainment areas establish programs aimed at reducing commute trips to the work sites of large employers.

Our continuing effort here at EPA is to make the program work, within the limits set by Congress, in ways that make sense at the local level. The Agency has worked closely with state and local air and transportation officials and as a result, state and local agencies have substantial discretion to design and implement their ECO programs. For example:

- States can set differing ridership targets for employers in different parts of a nonattainment area -- such as downtown and suburban areas.
- A state ECO program can protect employers from penalties if an employer fails to meet trip reduction goals when a good-faith effort has been demonstrated.
- A state may establish a regional trip-reduction program as a means of meeting the ECO requirement. A state may demonstrate that the regional program would produce trip... reductions equivalent to those from a successful ECO program, and employers would not be required to submit individual plans. An example of such a program would be parking cash-out on a regional level. At little or no net cost, employers would offer employees the option of cash rather than employer-paid parking.

Question 3a:

In 1991, the USEPA removed the Kenosha County air monitoring station from the Chicago ozone non-attainment area. Does this mean that, for monitoring purposes, these two air monitoring stations are no longer used to measure the air quality of the Chicago area?

Answer:

Because of Kenosha County's pre-enactment nonattainment designation, Kenosha County, Wisconsin, was designated as nonattainment for ozone by operation of law upon enactment of the Clean Air Act (Act). As part of the Chicago-Gary-Lake County, IL-IN-WI Consolidated Metropolitan Statistical Area (CMSA), Kenosha County was initially included in the Chicago-Gary-Lake County ozone nonattainment area, which was classified as severe nonattainment with 17 years to attain based on the 1987 through 1989 ozone design value (representative peak ozone concentration) at the Chiwaukee Prairie monitoring site in Kenosha County. The 1987 through 1989 ozone design value at the Chiwaukee Prairie monitoring site was 0.190 parts per million. Past analyses have shown that peak ozone concentrations in excess of the ozone standard in Kenosha County were primarily due to ozone precursor emissions in the Chicago area. This made the Kenosha monitoring sites the peak impact sites for determining the classification of the Chicago-Gary-Lake County ozone nonattainment area.

The State of Wisconsin was given formal notice of the designation of Kenosha County in a January 28, 1991 letter from Valdas V. Adamkus, Regional Administrator, to Tommy G. Thompson, Governor of Wisconsin. The State replied, in March 14, 1991 and June 4, 1991 letters, that Kenosha County should be included in the

Milwaukee-Racine ozone nonattainment area for administrative purposes. The rationale for this proposal was that it was logical from a planning and regulatory perspective to include Kenosha County with neighboring Wisconsin Counties. The State of Wisconsin believed that the inclusion of Kenosha County in the Chicago-Gary-Lake County nonattainment area would require extensive and unnecessary reformulation of planning and data. Keeping Kenosha with the Milwaukee-Racine nonattainment area, which was also to be classified as severe nonattainment for ozone based on an ozone design value of 0.183 parts per million monitored in the area, was viewed as serving to ease the administrative burden of both the State of Wisconsin and of the State of Illinois. As a result of the inclusion of Kenosha county in the Milwaukee-Racine nonattainment area, the ozone design value monitored in Kenosha County served to change the classification of the Milwaukee-Racine nonattainment area from severe-15 to severe-17.

The transfer of Kenosha County to the Milwaukee-Racine nonattainment area for administrative purposes does not override the technical observation that the Chicago area emissions are the primary contributor to the high ozone levels monitored in Kenosha County. It is technically appropriate, based on past observations, to conclude that the ozone design values monitored in Kenosha County should be assigned to the Chicago-Gary-Lake County ozone nonattainment area. Therefore, for monitoring purposes, the transfer of Kenosha County to the Milwaukee-Racine nonattainment area has not eliminated the consideration of the ozone monitoring data for this County from the determination of the designation and classification of the Chicago-Gary-Lake County ozone nonattainment area.

Question 3b:

If this decision had been made in 1988, the Chicago area would have been classified as a serious rather than severe, ozone nonattainment area based upon data from the remaining 22 monitoring stations in Illinois and Indiana. Isn't that correct?

Answer:

This is incorrect. Well before the Clean Air Act Amendments of 1990, EPA, the Illinois Environmental Protection Agency, and the Wisconsin Department of Natural Resources were considering the cause of high ozone concentrations in Southeastern Wisconsin. As part of that consideration, the timing and location of peak ozone concentrations in Illinois and Wisconsin were considered along with resultant wind directions and wind speeds on high ozone days to assess the cause of the ozone standard violations. These data indicated that Chicago area emissions contributed significantly to the high ozone concentrations in Kenosha County. Therefore,

it is appropriate to consider the ozone design values at the Kenosha County monitors as indicators of the classification of the Chicago area regardless of which attainment area is assigned to contain Kenosha County.

Question 3c:

If so, USEPA has modified the baseline upon which the Chicago area's environmental programs are based. Such a change will permanently "skew" future measurements against this baseline. Isn't that true? Please explain why or why not.

Answer:

As noted above, EPA has not modified the baseline upon which Chicago area's environmental programs are based. EPA believes it has not erred in the classification of the Chicago-Gary-Lake County nonattainment area based on ozone design values monitored in Kenosha County. These design values are relevant to the Chicago area despite the nonattainment area to which Kenosha County was ultimately assigned. The assignment of design values was made based on technical, scientific observations, whereas the assignment of Kenosha County to the Milwaukee-Racine ozone nonattainment area was made based primarily on administrative considerations (it was noted that the Kenosha County emissions primarily impact peak ozone concentrations downwind in the Milwaukee area).

It should be noted the ultimate emission control programs for the Chicago-Gary-Lake County and Milwaukee-Racine ozone nonattainment areas will be decided based upon photochemical modeling being conducted as part of the Lake Michigan Ozone Study and Ozone Control Program. It should also be noted that, since both areas are classified as severe-17, both areas are subject to the same statutory requirements under the Act.

Question 4:

Administrator Browner has been quoted on many occasions as wanting to reduce the economic impact of EPA regulations on industry. However, EPA has estimated the cost of the ECO program nationwide at from \$1.2 to 1.4 billion per year (Employee Commute Options Guidance, December 1992). Given the very modest reductions in vehicle emissions achievable through employee trip reduction programs (on the order of 1-2%, according to the Joint DOT/EPA Report to Congress, August 1993), as compared to their cost, how do you justify going ahead with this program?

Answer:

Congress has mandated that EPA and affected states carry out this program as a means to reduce air pollution and traffic congestion. EPA is committed to flexible implementation of the ECO program in order to minimize the costs. Employers required to implement ECO have a wide range of options to choose from in designing their plans. Employers' plans may promote compressed work weeks, mass transit, vanpools, carpools, telecommuting, bicycling and walking, or working at home. EPA has given states the ability to grant employers a range of options to achieve ECO's goals. For example:

- States can allow employers to reach ECO ridership targets by averaging among different work sites, or by obtaining credits from other employers who achieve greater-than-required trip reductions.
- States may allow credit for employees arriving in clean-fuel vehicles.
- States may accept credit for children dropped off at daycare.
- States may approve employer plans that include subsidies to employees such as subsidies for transit or ridesharing that are applied only during that state's season of high pollution levels. As a result, employers may focus a significant portion of their ECO resources on the time of year when air pollution levels most warrant trip reduction efforts.

Mr. DINGELL. The gentleman from Virginia, Mr. Bliley.

STATEMENT OF HON. THOMAS J. BLILEY, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF VIRGINIA

Mr. BLILEY. Mr. Chairman, I thank you for your courtesy in allowing me, though not a member of this subcommittee, but a member of the full committee, to sit in. I have one question for Ms. Nichols. I have a brief statement and then a question.

I have a question concerning Virginia's current efforts to split an acceptable State implementation plan revision for the northern Virginia area. As you know, most of the disagreement is centered on the type of inspection and maintenance program the State will administer in northern Virginia, whether the State will be allowed to use the current network of service stations to conduct emissions inspection or whether it will have to go to a centralized testing program.

It is my understanding that the Virginia Department of Natural Resources has submitted a new plan to EPA's region 3 office in Philadelphia and that the plan is currently being reviewed.

I do not want to ask specific questions about Virginia's submission because I know that it is still undergoing review in the region and that would be unfair to you. However, I do have a question about the overall approach that EPA is taking when it tries to work with States to meet the requirements of various Federal environmental laws, including the Clean Air Act.

I have been encouraged by some of the things I have heard from EPA recently on the subject. For example, in a recent op-ed piece in the Washington Post, Administrator Browner acknowledged that, "We need to move beyond one size fits all regulations."

My concern is that this attitude does not seem to be shared by the representatives of EPA who are working directly with the Commonwealth of Virginia. For example, earlier this month, region 3 Administrator Peter Costmyer sent a letter to Governor Allen advising him that Virginia's SIP revision was unacceptable.

In connection with this letter, Mr. Costmyer was quoted in the Washington Post as saying that Virginia would have to comply with the Clean Air Act, "our way." That is EPA's way or risk losing Federal highway funds.

It is my sense that as State and local governments attempt to meet the requirements of the 1990 Clean Air Act amendments, it will be more important than ever for EPA to work with these government officials to consider flexible approaches, adapted to particular circumstances. I am interested to know whether you agree and if so how EPA headquarters is working to apply that policy in its day-to-day work.

Ms. NICHOLS. Well, thank you for the question. And it is a broad one. I will try to respond and reference the issue of Virginia's inspection and maintenance plan because this is one where we do have specific regulations on the books that would seem to be very prescriptive about the type of program that States need to enact.

As you may recall, last year there was a good deal of publicity and controversy between EPA and the State of California over this same issue of whether a State would be allowed flexibility to design its own program and in that instance the Administrator indicated

a willingness to work with the State to make sure that the State was allowed to design its own program with as much flexibility as possible as long as the fundamental parameters of the program were met.

We have approved many different types of inspection and maintenance programs. For example, the State of Nevada has a program that is decentralized. It is not run by a contract. It is run by independent garages, it is a test only plan. The Atlanta region has a hybrid program which is partially test only, partially test and repair. California is also a hybrid program which is attempting to use a lot of some new technology from remote sensing to try to identify the biggest emitters, the largest violators in the automotive sector.

So there is a good deal of room for individual programs in this area. I know that Virginia has recently sent its program to the regional office. They are looking at it closely. They are conferring with our staff in headquarters and before they make any final rulings on this issue, I would have a chance to look at it. But as you indicated, and I certainly support the statements that you quoted from the administrator, we really are trying to pioneer an effort to treat States as competent full partners in the process of implementing the Clean Air Act and to impose restrictions only where it is necessary to make sure that the underlying emissions reductions are achieved.

Mr. BLILEY. Thank you very much. So I gather from your response that EPA has taken in the past and will try as far as they can and the law allows to adopt a flexible approach in the future in dealing with States, Virginia and others.

Ms. NICHOLS. Yes, sir.

Mr. BLILEY. Thank you, Ms. Nichols. Thank you, Mr. Chairman, I appreciate your indulgence.

Mr. DINGELL. The Chair thanks the gentleman. Ms. Nichols, do you agree or disagree that Section 101 of the Clean Air Act provides that the purposes of Title I are, "now to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." Do you agree or disagree?

Ms. NICHOLS. Well, I believe that is a correct quotation and I do agree with it.

Mr. DINGELL. Thank you. Now, do you agree or disagree that such purpose extends to Title II of the act including Section 211-K, which requires the RFG program and the anti-dumping provisions?

Ms. NICHOLS. I don't have the act in front of me, sir, and I can't answer the question as to what the exact modification of 101, of 211(k) is. I would be happy to get back to you on that.

Mr. DINGELL. That would be appropriate, but Section 101 is a statement of policy.

Ms. NICHOLS. Yes.

Mr. DINGELL. Would I be fair in inferring that it applied to the entirety of the bill?

Ms. NICHOLS. I would expect that a broad statement of policy like that would be applicable across the board, but I don't want to give a legal interpretation. I am not licensed in the District of Columbia. Only in California.

Mr. DINGELL. Now, I would assume that down at EPA that somebody would have the answer to these questions.

Ms. NICHOLS. I would assume so, too, and I would be happy to ask.

Mr. DINGELL. Since there is some diligence down there in interpreting the statute that somebody would know the answer to those questions, would you please consult with them and inform the committee?

Ms. NICHOLS. I would be happy to do so.

Mr. DINGELL. Now, would you agree or disagree that in international negotiations only matters like climate, sulfur dioxide emissions, oxides of nitrogen, VOCs and toxics, as well as greenhouse gases, the administration has urged that other nations follow our lead in adopting requirements similar to those in the Clean Air Act?

Ms. NICHOLS. Yes, I am aware of a number of those.

Mr. DINGELL. Now, it is fair to note, however, that few countries such as Venezuela have followed our lead. Is that also a fair statement?

Ms. NICHOLS. I can't answer the question as far as what air quality standards Venezuela has adopted as a general matter. I know that our success has been mixed. Some countries allege that they have higher air quality standards or better air quality standards than we do, but overall I think our program leads the world and I don't think any other country—

Mr. DINGELL. It has been our policy when they go to these international conferences that we take a strong position on the environment and urge others to follow us.

Ms. NICHOLS. Yes, that is correct.

Mr. DINGELL. Now, Mr. Watson and Ms. Nichols, this question is to you, if you please. It is my understanding that pursuant to the purposes of the Clean Air Act, EPA believed that its December RFG rule, that is, the reformulated gasoline rule, was a necessity from a health standpoint and that there was a valid justification to differentiate because—between refiners and importers. Is that correct or not?

Mr. WATSON. Well, I don't think I should answer for the EPA.

Mr. DINGELL. Let me give you the question again. It is my understanding that pursuant to the purposes of the Clean Air Act, EPA believed that its December reformulated gasoline rule was necessary from a health standpoint and that there was a valid justification to differentiate between refiners and import centers, because as shown in Exhibit 3, domestic refiners are subject to verification audits and to enforcement to ensure that their base lines are correctly certified while foreign refiner is not and, as such, could gain a significant competitive advantage due to EPA's inability to maintain a level regulatory playing field.

Ms. NICHOLS. I guess I had better answer that question because it is a question about EPA's position on things, Mr. Chairman.

Mr. DINGELL. All right.

Ms. NICHOLS. As of the time of the final rulemaking in December of last year, it was my position and I so advised the Administrator that although this was an issue that was in substantial dispute and that I was concerned about, that I felt I was uncomfortable

with changing what had been the earlier staff recommendation which was to set a separate baseline for foreign refiners because of the enforcement considerations that you have just cited.

Mr. DINGELL. Now, then, I guess perhaps we will let you both discuss this, Mr. Watson and Mr. Shapiro, too, if you please. Isn't that a reasonable basis under the exception, Article 20, of the GATT for the United States to defend the EPA rule? On grounds that this was a measure which was not, A, unduly discriminatory against importers and foreign producers and, B, it was necessary for the protection of the health and the environment and the well-being of the American people?

Mr. SHAPIRO. Mr. Chairman, I would say that if that were the conclusion, if the conclusion stayed as it was in December, that that was necessary in order to protect the health of the American people, I would say that that would be an Article 20 defense, yes.

Mr. DINGELL. Well, isn't that really implied both by the language of the statute, by the rulemaking, by the findings in the rulemaking and by the fact that to exercise the rulemaking powers, EPA had to essentially make a finding that these steps were necessary for the health and the well-being of the American people?

Mr. SHAPIRO. Yes, that is right and the only concern, of course, is the one that has been referred to before which is that as of December 15, EPA basically said that they were continuing to discuss this with Venezuela and that that issue was still something of an open issue.

Mr. DINGELL. Well, I find all of this to be something with which you and I seem to both be comfortable. But I also find a situation where potentially to behave otherwise would be to confer an economic advantage on the Venezuelan refiners who really don't have the ability to audit or to check their information or verify or audit the information that they get and so we would never know if we did not take this course that we would, in fact, have a situation where we were assured that the rules were, first of all, fair to American refiners and, second of all, that they were going to be adequate to ensure that the Venezuelans were producing a gasoline which, in fact, could be found by our EPA to meet the requirements of protecting the health and well-being of the American people.

Ms. NICHOLS. May I just respond because—

Mr. DINGELL. Sure.

Ms. NICHOLS. I think this is really an issue about facts and the question is are the facts there that would justify that finding.

Mr. DINGELL. Well, if you can't go down there and audit them and they don't have to produce the data and the information, you are never going to know whether, A, you are treating our people fairly, or, B, they are complying with our environmental laws in the same way that our people are.

Ms. NICHOLS. Yes, Mr. Chairman and that is precisely what the issue is that the staff was reviewing and had—and that I had not fully reviewed at the time that we came out with the December final rule, but during that period of time, PDVSA the Venezuelan oil company, did, in fact, submit data to EPA which EPA's technical staff reviewed which made them feel comfortable that they would be able to be satisfied at a later point if they could get it

audited and get the company to agree, which they would have to under a petition process, would satisfy them.

They thought—they believed that quality of data and quantity of data and ability to verify it was there. It was that information that gave us enough comfort to go out with a proposal. Not a final rule-making but only a proposal to entertain the idea of doing a rule-making. But the specific issue there is that the inspectors, as part of this petition process, would have to be given full access in addition to audited reports being presented, audited by an auditor; that is, that EPA would certify anybody who was taking advantage of this proposal and coming in with a petition would have to agree as a part of the petition to submit to inspection at the refinery site by U.S. inspectors. That is a provision in the proposal.

Mr. DINGELL. Thank you.

Now, Ms. Nichols, under the proposed rule, as I understand it, the importer such as CITGO could use a baseline established for a foreign refinery as that report—as that importer's individual baseline; is that right?

Ms. NICHOLS. Yes, that is correct.

Mr. DINGELL. Now, but then I note that the importer does not establish the baseline; is that correct?

Ms. NICHOLS. The issue here is whether the baseline is applied to an individual refiner or to an importer and the baseline is applied to the company that is selling the gasoline.

Mr. DINGELL. Well, but the matter is really quite simple. Either the importer establishes a baseline or he doesn't. We have agreed he does not establish the baseline. Is that right?

Ms. NICHOLS. He uses the refiner's baseline.

Mr. DINGELL. He uses the refiner baseline and the refiner is the one that establishes the baseline.

Ms. NICHOLS. Yes.

Mr. DINGELL. That is done on a petition to you.

Ms. NICHOLS. Yes.

Mr. DINGELL. To EPA, is that right?

Ms. NICHOLS. That is correct. That is the proposal.

Mr. DINGELL. Then that imposes additional costs and burdens on EPA because a foreign refiner must submit a petition to your office. You have to process that, send inspectors to travel to the refiners for inspections and audits and so forth; isn't that right?

Ms. NICHOLS. Well, it is the same as the provision for domestic refiners who establish their own base lines as well. They also have to submit petitions which we have to review. At most, we think this would apply to two maybe three foreign refiners that would try to avail themselves of this same process, so the only added cost would be for the travel for the inspector. I am not sure whether the travel costs to Venezuela from Washington, DC or Ann Arbor are greater than those to Houston, but probably they are.

Mr. DINGELL. All right. Let's look a little further. The proposal, however, precludes EPA from enforcing these requirements against a foreign refiner; isn't that so?

Ms. NICHOLS. The proposal is that we inspect at the refinery, but that the penalties are assessed against the importer.

Mr. DINGELL. But you don't enforce it, do you? You have no authority to issue penalties or to apply penalties.

Ms. NICHOLS. The penalty that we—we believe we have authorities to issue penalties against anyone who is doing business in the United States and we would go directly——

Mr. DINGELL. But the refiner doesn't do business in the United States. He sells to the importer.

Ms. NICHOLS. Correct. So we would be enforcing against the importer.

Mr. DINGELL. So the importer, the refiner either refuses to cooperate or gives us false information. What penalties and sanctions can you level against the refiner?

Ms. NICHOLS. The refiner is out of business in the United States because the importer is not about to take any more of his gasoline if the importer is paying penalties on account of that refiner having given him bad data or bad gasoline.

Mr. DINGELL. Well, then, you do that and then immediately our good friend, Mr. Watson, here gets a call from the Venezuelan government complaining that we are violating GATT, I have no doubt. And then what do you do with that, Mr. Watson? You call EPA and Mr. Watson gets you and Mr. Shapiro and others together and you have another meeting like we have discussed earlier and then you are back before the committee again.

Mr. WATSON. I would be very, very comfortable in having EPA enforce its rule precisely as it is laid out in its proposal and with the regulatory mechanisms that it has, sure, it would have to do that.

Mr. DINGELL. There we have a situation where the Venezuelans have not subjected themselves to U.S. jurisdiction. They can't be fined. And so here we have got CITGO, which is an importer of Venezuelan gasoline, supplier to—a major supplier to the Northeast United States, you say you can't bring any more Venezuelan gasoline so CITGO doesn't bring in a bunch of Venezuelan gasoline and then I have got a bunch of people who are jobbers, they are down here complaining to their Congressmen.

You have got a bunch of people who are dealers, they are down here complaining to the Congress because they can't get CITGO product. Then you have got a bunch of motorists up in the Northeast who can't get CITGO product. So their credit cards are no good and you have got gasoline station lines up there and you have got a bunch of long-term contracts between CITGO and the school boards and the transportation authorities in the Northeast and they can't get product and they are down here talking to the Congressmen.

What are we going to do about this business of having shut off all of the import of CITGO because they weren't cooperating with you on this matter? Are you prepared to deal with all these angry Congressmen and Senators and folk like that that are going to be mad at you for all the problem you have created in their districts?

Ms. NICHOLS. If CITGO isn't allowed to sell Venezuelan gasoline, I guess they are out of business, period. I guess it is six of one, a half-dozen of another.

Mr. DINGELL. I am wondering if you have enough sand in your craw down there at EPA to take aboard this kind of political situation in your backyard because you can't bring in any more CITGO gasoline.

Ms. NICHOLS. We are dealing with a tough and competitive marketplace out there, but I think that EPA has a pretty good history of assessing fines and penalties against oil companies that don't comply with our various fuels requirements and these cases are tough, but we bring them.

Mr. DINGELL. This is a rule which applies only to Venezuela and CITGO or does it apply to all foreign refiners, for example, the Saudis or the Iranians or Iraqis or the Dutch or the British.

Ms. NICHOLS. The proposal would make this petition process available to any foreign—any foreign supplier that could meet the tests in terms of the information, the quality, the quantity of the data that need to be supplied and that would submit to the inspections.

As a practical matter, based on the inquiries and the comments that we have received during this public comment process, with respect to reformulated gasoline, we only were aware of two companies that might be interested in doing it, one of which is PDVSA.

Mr. DINGELL. All right, now CITGO says—rather not CITGO, but the Venezuelan national oil monopoly says, well, we are not going to sell any more in the United States, but we are going to put this on the spot market. What are you going to do about the spot market? For example, the Chinese from Manchuria are putting in a lot of gasoline from the spot market—a lot of gasoline in the spot market.

The spot market is moving gasoline into this country from almost every refiner in every place in the world depending upon refining capacity, whether it is being fully used or not and how the prices are and how much transportation costs are.

Now, does this rule apply to the spot market?

Ms. NICHOLS. Yes, it does.

Mr. DINGELL. It does, so your enforcement mechanism on the spot market is to say you can't bring any more gasoline in; is that right?

Ms. NICHOLS. It has to meet the base line under the Clean Air Act.

Mr. DINGELL. How are you going to have a base line on the spot market?

Ms. NICHOLS. We enforce it at the retail outlet and if it doesn't meet the standards, the gasoline can't be sold and there is a fine assessed.

Mr. DINGELL. How do you know what the base line is in the case of the spot market?

Ms. NICHOLS. It is Clean Air Act baseline, Mr. Chairman.

Mr. DINGELL. For imported fuels?

Ms. NICHOLS. Yes. There is a baseline set in the Clean Air Act. The only difference here is that we are letting domestics, and maybe if this proposal goes forward, some foreigners allow—will be allowed to achieve a separate baseline. That is—it is a separate baseline of their own that they are being allowed to establish.

Mr. DINGELL. How does a refiner that doesn't have a baseline get a Clean Air Act baseline? If they have never sold before in this country, they don't have a baseline.

Ms. NICHOLS. The Clean Air Act spells it out. You wrote it into the Clean Air Act what the baseline is. The numbers are actually there in the statute.

Mr. DINGELL. I am not talking about the regular market, I am talking about spot market. Do you understand the difference between the two?

Ms. NICHOLS. I believe I do, but it is the same situation.

Mr. DINGELL. The spot market is where people put gasoline in and take it out of a market which exist outside of regular contract structure of the industry.

Ms. NICHOLS. Right. But we are able to assess penalties against the wholesaler, against the retailer all the way up the chain of custody for violations of reformulated gasoline, if we find we are going to be out there testing gasoline at the gas stations.

Mr. DINGELL. But you can't do that against the refiner, can you?

Ms. NICHOLS. If it is a refiner that does not have a baseline of its own because it hasn't been able to give us the data and we haven't, we haven't approved it, then if it is not meeting the Clean Air Act baseline, they are in violation of the rule.

Mr. DINGELL. I wish I were as comfortable with that statement as you are. We will pursue this particular matter with some correspondence.

Now, Mr. Shapiro, last September the Commission of the European Communities—and I am going now to some questions relative to other matters—apparently on behalf of Mercedes, BMW, Audi and a group of European luxury manufacturers, initiated a GATT case against the United States.

Now, that claims that in the 1990's, European automobile makers have suddenly been harmed by the 1975 CAFE law. This is 19 years ago.

Am I correct in my understanding that after some almost 20 years of not initiating a challenge, they have concluded that the averaging concept is harmful to them because they have not chosen to sell their several models of cars in the United States and become a multi-line manufacturer?

Mr. SHAPIRO. Mr. Chairman, I think that does reflect the situation and reflects the argument they are making. As I tried to indicate in my opening statement, we have, as you know, strongly opposed that, and we think that their arguments have no basis in terms of GATT national treatment, that the act, which has been on the books as long as it has, was trade-neutral.

Mr. DINGELL. Well, I want you to know that I—this committee and I have worked with you and with Mr. Kantor for a considerable time and I think you are good public servants and diligent in looking after the well-being of the American worker and the American manufacturer.

Now, let's go a little further. In 1975, these firms were quite fuel-efficient, and they did not have to undergo the changes that were required of U.S. domestic makers who had not caught up with them or who were not at that time even with them on efficiency and quality; is that right?

Mr. SHAPIRO. Mr. Chairman, that is right. At that time they were actually more fuel-efficient than our domestics were. And for whatever reasons, and they have their own commercial reasons,

they have chosen not to improve fuel economy; indeed, to go the other way—higher cost, high-performance models, gas-guzzlers, essentially.

Mr. DINGELL. Now, there are two complaints that they probably could assert. One is the question of gas guzzler tax, and of course the other is the question of the corporate average fuel economy. I assume—are they complaining about both?

Mr. SHAPIRO. They have asserted three, actually, Mr. Chairman. They have added the luxury tax as well.

Mr. DINGELL. Of course the luxury tax is applied to U.S. models in exactly the same way if they meet the same prices; isn't that right?

Mr. SHAPIRO. Absolutely.

Mr. DINGELL. I remember when I was a lawyer and I had a bad case, I used to throw up all matter of questions in the complaint in the hope that a judge or jury might just find some merit somewhere. Do you think there is a little of that going on here?

Mr. SHAPIRO. Well, Mr. Chairman, I am not sure, but I do think that the notion that they got troubled by the luxury tax and decided at that time to bring in two other statutes that go back, you know, considerable time, is a problem.

Mr. DINGELL. Well, now, we have a curious process here. I gather it is secret in that the Europeans do not reveal to public view their claims and the United States does not reveal its reply; is that right?

Mr. SHAPIRO. Actually, Mr. Chairman, we have taken to making public our submissions. We have also—as you know, Ambassador Kantor feels strongly about this, as you do—pushed to make the process a more open one, but theirs are still confidential.

Mr. DINGELL. Is that going to persist under the new GATT treaty?

Mr. SHAPIRO. Under the new GATT, we have gotten an agreement that at least nonconfidential summaries would be made available.

Mr. DINGELL. Nonconfidential summaries.

Mr. SHAPIRO. Yes. But it does not go as far as we would like, and Ambassador Kantor has stated repeatedly our desire to make this part of the process, the dispute settlement part of the process which is sort of, in our view, somewhat like litigation, so those briefs ought to be available.

Mr. DINGELL. Now, I had a—if I were to put a copy of the European submission of September 1993 and I were to put it into the record, would I be violating the law?

Mr. SHAPIRO. Mr. Chairman, I wouldn't say you would be violating the law. I think that it would be contrary to the practice of the GATT thus far. It would also be contrary—

Mr. DINGELL. It would be contrary to our understanding?

Mr. SHAPIRO. Yes. It would be contrary to our understanding explicitly with respect to this case as well. And I should say, Mr. Chairman, that, as is typical, when confidentiality is requested, if we agree to it, we have classified that document as well.

Mr. DINGELL. Now, Ms. Tierney and Ms. Nichols, as you know, I have been concerned about the compliance with the RFG rule, and the antidumping provisions, and I have been troubled that

they would have a significant impact on refiners, pipelines, and the entirety of the distribution systems.

We have heard that the DOE has been working with EPA to identify problems and that the National Petroleum Council did a study last October about the industry's capability to comply.

Now, this is a matter of very real concern, because it involves both the time that it is going to take the EPA to get things going forward; it involves the time that it is going to take the refiners to retrofit or to adapt their facilities to produce the gasoline that is going to be required, and that is going to be both to produce the reformulated gasoline and to address the questions that are associated with the antidumping rule, which is going to impact severely on both refining and distribution practices.

Now, we have been advised that the National Petroleum Council did a study last October about the industry's capability to comply. That was before the RFG rule was finalized and before two more rules were proposed.

I am concerned that there has been no mention today of analysis of these matters by the Energy Information Administration, and I would like to ask you if, first of all, if some work has been done by the Energy Information Administration on this analysis?

Ms. TIERNEY. I heard about six questions in there, so I think I am going to answer the last one first. And I understood it to be a question of whether or not the Energy Information Administration had been a party to studies about adequacy of supply.

The EIA is involved today in ensuring that as we go forward this summer and in the fall and into the winter, that we get as close to real-time-data reporting on inventories and production as possible, and I assure you that we will do everything we can to make the turnaround time between delivery of information from the industry to EIA verified and made public so that we can track that together. I mean that you and we and everyone interested can track inventories.

I should, in response to some other questions, indeed, the National Petroleum Council issued its report last fall. We have commented on that in our testimony. I think in fact we filed a copy of the summary in our testimony to you this week. They indicate, they think that the system is flexible enough to handle the transaction—potential transaction problems associated with distribution of reformulated gasoline.

As you note they issued that report before the final rule, but there was information clearly available in the public record that was along the lines that EPA eventually adopted in the December rule, and that is consistent with what the National Petroleum Council used in its analysis. But for the renewable ethanol provision.

So we don't have the benefit of the National Petroleum Council's views on that. That is one of the reasons that DOE in the Argonne Laboratory took an examination of the question of what do we expect to occur in the ethanol production market. And we examined the question of what we would expect in terms of increases in demand, trends vis-a-vis the other uses of ethanol today in conventional gasoline markets and transportation-related issues, moving ethanol from its area of production, principally in the Midwest to

its area of use under a renewable oxygenate requirement, which would be principally in California in the northern Midwest and in the Northeast coast.

We anticipate that there will be real transportation—let's see how to phrase this. I have been trying to phrase it the way the report did. There will be a lot more ethanol produced than we have ever seen before.

We have been—

Mr. DINGELL. Well, there is no, for example, there is no ethanol in the Los Angeles base at all, is there?

Ms. TIERNEY. I think there is.

Mr. DINGELL. Do you? I have been informed there is not.

Ms. TIERNEY. In the winter carbon monoxide program.

Ms. NICHOLS. Yes. There is in the wintertime.

Mr. DINGELL. There is?

Ms. NICHOLS. Yes.

Mr. DINGELL. Well, I am going to ask you to—

Ms. TIERNEY. There is one more thing that we have been working on, and in fact this has been the leadership of EPA. EPA, I think it is your enforcement office, has established a working group of members of the Federal agencies, including the Department of Energy, as well as members of the industry that will meet periodically. Has it met yet, in fact?

Ms. NICHOLS. No, it has not met yet.

Ms. TIERNEY. Let me pass the rest of this to Mary.

Ms. NICHOLS. It is under the Office of EO that it has been initiated. It is under the direction of Mary Smith who heads up our fuels office and it has not yet met, but the group has been designated and they plan to meet for the first time in July.

Mr. DINGELL. So what you are telling me is you have a group that is going to meet and advise you about supply and other problems, but they have not yet done so; is that what you are telling me?

Ms. NICHOLS. Well, there have been many informal meetings; this is just the advisory group.

Mr. DINGELL. What is in the hearing record with regard to the ethanol rule? Do you have anything in there at all on supply, and what is in the rule—rather, the hearing record on the rule on reformulated gasoline?

Ms. NICHOLS. There is a substantial amount of information, both in the original—the existing rule and additional information has been submitted in the rulemakings, both on the foreign refinery baseline issue and on the renewable issue on supply. Primarily in the renewable rulemaking, because there is concern that has been expressed about the impact of being required to meet a mandate on various individual company's abilities to furnish the gasoline because of their concerns about availability and timing of the mandate. That is one of the major arguments for doing any mandate in a phased manner, as well as allowing more flexibility and compliance.

Mr. DINGELL. Well, my good friend Mr. Finnegan and I are going to communicate with you in writing about the information, and, Ms. Tierney, we are going to be expressing some interest in what studies have been made by EIA on this matter, what communica-

tions by EIA have been made to EPA on this matter, and we will have some other questions.

Now, we very frankly would like to have a study on this from EIA of looking to the final rule and so forth on the supply situation, including distribution situation, pipeline problems, tankage problems, the degree to which smaller refiners will produce RFG and a number of other relevant factors, and we will have a written request on that to you so that you can assist the committee.

Ms. NICHOLS. Great.

Mr. DINGELL. Now, I got an interesting question. I was looking here at the briefing papers that went to Secretary—or rather to Administrator Browner, and it essentially is a commendation of discussion of the Bush compromise proposal and the new proposal that is going to be coming forward under this administration.

I noted that the proposal allowed for 30 percent of RFG to have ethanol with higher RVP, but RVP increase made up by 70 percent lower RVP.

I was wondering, isn't that the same as the new proposal that this administration has?

Ms. NICHOLS. No, it is not, Mr. Chairman.

Mr. DINGELL. How is it different?

Ms. NICHOLS. The principal environmental problem with the Bush proposal was that it allowed for commingling of gasoline with the lower revapor pressure and the ethanol and gasoline that otherwise did not have ethanol, and that the mixing actually would lead to greater emissions of volatile organic compounds during periods when the gases were being mixed. This was the concern that was raised by the States; it was raised by environmental organizations, that there was this added burden on air quality.

In addition, of course, the refineries objected to having to formulate lower revapor pressure gasoline in order to make up for the additional VOC emissions that came from splash blending the ethanol.

So it was a proposal that was not supported by anybody.

Mr. DINGELL. Well, I tell you what I am going to request is, first of all, one, both of them had a 30 percent ethanol requirement; did they not?

Ms. NICHOLS. The number 30 percent appears in a variety of different places in various proposals.

Mr. DINGELL. But both in the current proposal before EPA and in the Bush proposal.

Ms. NICHOLS. Yes, that is correct.

Mr. DINGELL. All right.

Now, on the briefing papers for the administrator were an item of concerns with ethanol proposal. And that was at page 16, 17 and 18.

Ms. NICHOLS. Yes.

Mr. DINGELL. I would appreciate it if you would at your early convenience submit to us for purposes of the record a statement of how these criticisms of the Bush proposal differ from—or rather how they could not be made about the proposal that this administration has put forward.

Ms. NICHOLS. I will be happy to explain why this proposal—

Mr. DINGELL. And if you please go down one by one identifying each and every complaint you had about Mr. Bush's proposal and then explain why this criticism doesn't apply to the package that was brought forward by this administration.

Ms. NICHOLS. Be delighted to.

Mr. DINGELL. Ladies and gentlemen, the Chair wants to thank you. The bells have rescued us again from ourselves, and I want to thank you all for being here and for your patience. Ms. Katzen, you will observe that we have had the room warmed up slightly.

Ms. KATZEN. You have indeed, sir.

Thank you.

Mr. DINGELL. And you also observed that we had all of you out in time that you could go about your business and do some of the important things that were mentioned to me when we recessed.

The Chair thanks you all for being present. We appreciate your kindness and courtesy to the committee.

Thank you very much.

[Whereupon, at 4 p.m., the subcommittee was adjourned.]

[Additional material submitted for the record follows.]

ONE HUNDRED THIRD CONGRESS

JOHN D. DINGELL, MICHIGAN, CHAIRMAN

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U.S. House of Representatives
 Subcommittee on Oversight and Investigations
 of the
 Committee on Energy and Commerce
 Washington, DC 20515-6116

August 15, 1994

The Honorable Carol M. Browner
 Administrator
 Environmental Protection Agency
 401 M Street, S.W.
 Washington, D.C. 20460

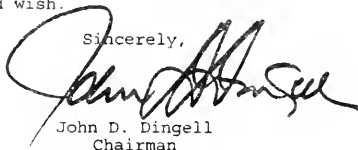
Dear Administrator Browner:

Since asking the Environmental Protection Agency (EPA) to respond to questions relative to the Subcommittee on Oversight and Investigations' June 22 hearing on the Clean Air Act Amendments of 1990, several other matters have come to our attention that are also relevant to the issues raised for that hearing. Therefore, pursuant to Rules X and XI of the Rules of the House of Representatives, I request your response to the enclosed additional questions by September 15, 1994.

Finally, also enclosed for your information, review and comment is a further opinion of the General Accounting Office (GAO) responding to the EPA's comments on GAO's October 21, 1993 opinion regarding sanctions.

With every good wish.

Sincerely,



John D. Dingell
 Chairman
 Subcommittee on Oversight
 and Investigations

Enclosure

cc: The Honorable Dan Schaefer, Ranking Republican Member
 Subcommittee on Oversight and Investigations

The Honorable Henry A. Waxman, Chairman
 Subcommittee on Health and the Environment

The Honorable Thomas J. Bliley, Ranking Republican Member
 Subcommittee on Health and the Environment

ADDITIONAL QUESTIONS
BY
CHAIRMAN JOHN D. DINGELL
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
RE: CLEAN AIR ACT OVERSIGHT
HEARING OF JUNE 22, 1994

August 15, 1994

1. In my June 28 letter, I asked about the status of a redesignation to attainment for the Detroit moderate nonattainment area. Since then, I understand the proposed redesignation has been published. That is good and I urge that final action be expedited. However, I received the enclosed June 21, 1994 letter from Governor John Engler, as well as tables from Michigan's Department of Natural Resources, and an EPA update of the Detroit redesignation, which all raise concerns that the EPA process for consideration of redesignations and SIP revisions continues to be too slow and overly burdened by lengthy and, apparently, duplicative regional and headquarters review. (I understand that prior to November 1992, Tennessee formally asked the EPA to redesignate Memphis as an attainment area for carbon monoxide, but the EPA has not yet acted on the request.) The EPA generally contends that such review is needed to assure uniformity. I seriously question that uniformity is assured by duplicative reviews.

This is a longstanding problem at the EPA. In fact, at an April 27, 1987 hearing, I said:

The Subcommittee has shown that after nearly 5 years many State Implementation Plans known as (SIPs), and revisions thereof, still appear to be in limbo with neither approval nor disapproval by EPA. In Region 5, which includes Michigan, Illinois, Ohio, Wisconsin, and Indiana, only one SIP for ozone has been approved, that is Wisconsin's plan.

* * *

The Chair understands that EPA is trying to devise shorter schedules. But unless one believes in the tooth fairy, one cannot be optimistic given the procedural requirements of section 307 of the law.

Thereafter, the EPA established several task forces and committees to address the problem. When Congress enacted the 1990 amendments to the Act, we thought we took steps to resolve the problem. But apparently it persists.

- 2 -

I understand that the EPA has established yet another committee to once again examine the SIP process. Please identify the committee and its participants, the matters it is considering, and explain its purpose and status. Please provide a copy of the reports of prior EPA committees or task forces that addressed SIP problems and explain what action was taken regarding their recommendations. Also, in the case of the Tennessee redesignation, please explain the delay. Please identify by state, all other redesignation requests pending at the EPA as of July 31, 1994, including the date of the request and its status.

I also asked about related SIP matters in my letter of April 5, 1994. A reply is long overdue. I request that reply by August 31, 1994.

2. I understand that the EPA is contemplating providing flexibility to the states in the filing of complete attainment demonstrations by granting conditional approvals if the states meet 80 percent of federal requirements. Reportedly, the EPA is considering a regional plan option. Supposedly, states are having airshed modeling and inventory problems resulting in incomplete demonstrations. I question whether EPA has such flexibility under the Act, and request an explanation of these proposals and purported problems. It should include a discussion of the legal basis for such actions, taking into consideration the court's recent holding regarding committal SIPs. Please explain how the EPA plans to provide such flexibility and whether it would be granted generally or on a case-by-case basis.
3. As you know, in July 1992 the EPA promulgated Title V operating permit rules after considerable controversy. The 1992 publication resulted in a lawsuit that has been the subject of settlement discussions. However, no settlement has resulted and the court has not ruled on the matter. As a matter of fact, a briefing schedule has yet to be filed. Despite this, the EPA recently published for comment substantial changes to the 1992 rule and, according to the proposal, this is not the last of the changes. Final action on the proposal is not likely before December or next year.

I am troubled about the timing of this proposed change in the permit rule for two reasons. First, as noted, the proposal is not based on a settlement or court order. At best, it represents EPA's best guess of what the litigants might accept to resolve the controversy. The litigants and others are free to express themselves in any way and to renew the litigation regardless of the outcome of the proposal. At the same time, a March 21, 1994 document by the EPA allows the litigants to retain as confidential many matters discussed in the settlement negotiations that

resulted in no agreement. I question the appropriateness of that arrangement, now that the EPA has engaged in a public process. Second, many state and local governments are relying on the 1992 rule and have already developed permit programs and submitted them to the EPA for approval. The situation creates uncertainty for the states, local governments and the regulated community.

Please explain why the EPA decided that at this critical time, new rulemaking is sound in the absence of a settlement binding the litigants or a resolution by the court of the lawsuit. Please explain why the EPA is maintaining confidentiality regarding discussions with the litigants. What is the nature of these documents?

The notice states:

...EPA wants to minimize any disruption caused by these revisions. The Agency is thus proposing that State and local program approvals be governed by the version of part 70 in effect at the time of a program's submittal, except that programs submitted within 6 months after the publication date of the part 70 revisions will be judged by which ever version of part 70 the permitting authority chooses.

Please provide the legal basis for this proposal, recognizing that under the Administrative Procedures Act a proposed rule has no effect and could even be abandoned and repropoed.

Additionally, I request that the EPA explain why it has not also revisited the Bush Administration decision, based on its interpretation of the Clean Air Act, to limit the application of the permit program to major sources. During the earlier rulemaking, I criticized that decision because I believed then and now that the interpretation is contrary to the law. Is this an issue in the lawsuit? The Bush Administration indicated that renewal of that decision would be examined prior to the end of five years. Will this be part of this rulemaking? If not, why not?

4. I appreciate your June 16, 1994 reply to my concerns about budgeting at the EPA. You state that "Congress did not give EPA all the resources" initially requested for fiscal year 1994. I believe that problem stems from the fact that the Administration changed its requests after submitting the budget in order to fund other priorities. Given the budget constraints, EPA suffered cuts to provide for such priorities. This has occurred again for fiscal year 1995. I understand that the House Committee on Appropriations had

- 4 -

to take \$70 million slated for the EPA to fund a last minute White House request for the space program. Thus, EPA priorities are adversely affected when Administration initiatives, however laudable, are designated as higher priorities. That is not the fault of Congress.

Implementation of the Climate Change Action Plan is not a statutory or court ordered priority. In fact, from a statutory standpoint, the responsibility lies primarily at the Department of Energy under the Energy Policy Act of 1992. Nevertheless, it appears to receive a greater priority at the EPA than the priorities set by statute or court order.

You state that the final 1994 operating plan reprogrammings sent to Congress for approval "reduced funding levels for Clean Air Act (CAA) activities by less than the amount shown" in my letter. I do not want to quibble over whose figures are correct. The fact remains that Subcommittee Chairman Waxman and I supported increased funding for the EPA in FY 1994 and 1995, with particular emphasis on funding to meet statutory and court ordered mandates. I believe that the House Appropriations Committee listened and reacted favorably. However, the EPA, through reprogramming, thereafter reduced funding levels for the CAA activities without informing the Committee on Energy and Commerce and this Subcommittee either before or after the fact. For example, no one at the EPA provided the enclosed May 5 letter to the Appropriations Committees until our staff asked about the matter a few weeks ago. The EPA Comptroller's Office apparently thinks we have no oversight interest in such matters. Because of that interest under Rules X and XI of the House of Representatives, I request that this situation be corrected and that the Committee on Energy and Commerce be informed of all such requests when made. I also request a copy of all requests for reprogramming in FY 1994, showing the increases and decreases for the various activities and the impact on each program.

Did the May 5 reprogramming of \$16.6 million for Abatement, Control, and Compliance come from climate activities? I understand that you plan early in FY 1995 to reprogram FY 1995 funds in order to restore this sum to the climate activity. I request that you explain this strategy and its impact on Global Climate and Clean Air Act priorities, as well as the need for such a reprogramming. What funds will be raided in FY 1995 to restore funding for the global climate activity?

Will reprogramming and other actions ensure that the EPA will meet all air toxic deadlines for 1997? Your letter

- 5 -

indicates compliance with "near-term court-ordered deadlines." What are those deadlines? What about the statutory deadlines?

5. The July 29, 1994 edition of Inside EPA reports that a conflict is brewing between the Science Advisory Board and the EPA program offices about national ambient air quality standards. That troubles me, and I request an explanation from you and the Board, together with the Board's letter on revising the sulfur dioxide standard. Also, what is the status of the EPA review of each of the national ambient air quality standards as required by any court agreement and the statute? In each case, please provide an updated timetable for such review and decision.



Comptroller General
of the United States
Washington, D.C. 20548

93517

B-253214.2

July 22, 1994

The Honorable John D. Dingell
Chairman, Subcommittee on Oversight
and Investigations
Committee on Energy and Commerce
House of Representatives

Dear Mr. Chairman:

This responds to your letter of March 22, 1994, and previous communications, requesting our comments concerning a memorandum of the Environmental Protection Agency (EPA) General Counsel dated November 23, 1993 (EPA Opinion). The EPA's General Counsel disagreed with the conclusions reached in our October 21, 1993 opinion, B-253214. In that opinion, we concluded that: (1) after a finding of State Implementation Plan (SIP) deficiency with respect to a SIP revision required under Part D of the Clean Air Act, EPA is required, under section 179 of the act, to allow states 18 months to correct the deficiency before imposing sanctions; and (2) EPA is not authorized to formally propose sanctions against a state under the Clean Air Act until it finds that the state's SIP submission is deficient.

Our comments on the EPA Opinion follow.

I. TIMING OF CLEAN AIR ACT SANCTIONS

A. Language of the Statute

The essence of EPA's opinion concerning the language of sections 179 and 110(m) of the Clean Air Act is that the two provisions are consistent in that one (section 110(m)) provides EPA with the discretionary authority to impose sanctions "at any time (or at any time after)" it makes a finding of SIP deficiency, while the other (section 179(a)) states that EPA's discretionary authority converts to a requirement to impose sanctions 18 months from the time a finding is made. EPA Opinion at 8. Under this reading of the statute, section 179(a) serves only to impose a limit on the period of time EPA may exercise its discretionary authority under section 110(m) to withhold sanctions after a finding of deficiency.

While EPA's reading of the statute may appear plausible, in our view, there are difficulties associated with this

reading that make it doubtful that it accords with the intent of Congress.

First, as discussed in our original opinion and summarized below, we believe that the language of the statute does present a conflict concerning the timing of sanctions, at least with respect to SIP submittals under Part D of the act, such as the enhanced vehicle inspection and maintenance program submittal at issue in our opinion.

Section 179 specifically applies to findings of deficiency with respect to such submittals. Further, it provides that sanctions "shall apply" after a finding of deficiency, "unless such deficiency has been corrected within 18 months." EPA appears to argue that the only effect of this language is to require the imposition of sanctions after 18 months, because, EPA states, the language is not worded in such a way as to prohibit sanctions prior to 18 months. EPA Opinion at 8.

As we read the quoted language, section 179 standing alone does more than merely require the imposition of sanctions after 18 months against states whose Part D SIP submittals have been found deficient. It also provides those states the opportunity to correct the deficiencies within a finite period (18 months) and thereby avoid sanctions entirely. In short, section 179 appears to ensure to the states an 18-month grace period. If the states do not correct the deficiencies within that 18-month grace period, then, as section 179 expressly requires, sanctions "shall apply."

Section 110(m) appears, by its terms, to authorize EPA to impose sanctions "at any time (or at any time after)" the finding of deficiency in the SIP submittal. However, section 110(m) does not purport to authorize EPA to override the 18-month sanctions clock in section 179. In fact, section 110(m) contains no reference at all to the sanctions timetable of section 179.

Thus, in our view, the statutory language presents a conflict with respect to the timing of sanctions. If section 179 provides states with the opportunity to avoid sanctions by correcting deficiencies within 18 months of the finding, then EPA may not impose sanctions "at any time" after the finding--as section 110(m) seems to authorize--but must wait until the 18-month clock has run its course. On the other hand, if section 110(m) provides EPA with discretionary authority to impose sanctions "at any time"

after the finding, then the 18-month grace period--which section 179 appears to provide--is rendered a nullity.¹

A second reason for our doubt concerning EPA's construction of sections 110(m) and 179 is that, in two other provisions of the Clean Air Act, Congress explicitly provided that those sanctions provisions should operate in the way EPA argues that sections 179 and 110(m) operate. As we noted in our earlier opinion, sections 502(d)(2)(A) and 502(i), concerned with operating permits, also provide for the 18-month grace period prescribed in section 179. It is significant that both of these sections also contain separate provisions explicitly authorizing EPA to impose sanctions before the expiration of the 18-month grace period. No such provision is found in either section 110(m) or section 179. The lack of a similar override provision makes it quite uncertain, in our view, whether Congress intended section 110(m) as an instrument through which EPA, in matters involving Part D submittals, could override the 18-month clock of section 179.

In this connection, EPA offers the theory that the explicit provision in section 502 granting EPA discretion to impose sanctions prior to the expiration of the 18-month grace period under that section is evidence that Congress had the same intention with respect to sections 110(m) and 179, which lack a similar override provision. EPA cites no authority for this rule of construction. Indeed, the law is to the contrary. See, e.g., Keere Corp. v. United States, 113 S.Ct. 2035, 2040 (1993) ("it is generally presumed that Congress acts intentionally and purposely" when it "includes particular language in one section of a statute but omits it in another") (quoting Russello v. United States, 464 U.S. 16, 23 (1983)).

A further reason for our doubt concerning EPA's interpretation of the statute is that, in our view, the agency's construction of the first sentence of section 110(m)--as authorizing EPA to impose sanctions against a state immediately upon a finding of deficiency--produces an incongruous or inexplicable result, when juxtaposed with the 24-month clock required by the second sentence of section 110(m). That is, under the second sentence, the state is guaranteed a full 24 months to correct deficiencies if its political subdivisions are principally responsible, but, under EPA's reading of the first sentence, no time at all if the state itself is responsible.

¹Because we do not find the language of sections 110(m) and 179, construed together, at all plain, we believe that the cases cited in EPA's opinion requiring deference to the plain meaning of the statute are inapposite.

EPA asserts that there is nothing either incongruous or inexplicable about its interpretation of the two sentences of section 110(m). As EPA explains it:

" . . . EPA may choose not to impose sanctions earlier than 18 months after the finding, if appropriate, but if EPA chooses to exercise its discretionary authority, the availability of statewide sanctions earlier than 24 months after the finding is limited by whether a political subdivision of the state is principally responsible for the deficiency." EPA Opinion at 14.

We do not believe EPA's explanation resolves the incongruity resulting from its construction of the statute. As EPA concedes, under the second sentence of section 110(m), a state is guaranteed a full 24 months if its political subdivisions are principally responsible for the deficiency. By contrast, under EPA's interpretation of the authority provided to it in the first sentence, the state is guaranteed no grace period at all if the state itself is responsible. To be sure, EPA may choose not to impose sanctions earlier than 18 months after a finding but, under EPA's interpretation, the agency has no obligation to afford the state any time to correct deficiencies.

Compounding the incongruousness of the result produced under EPA's construction of the statute is the matter of the sanctions to be imposed. Section 179(a), which allows a state 18 months to correct deficiencies before sanctions "shall apply," provides for the imposition of only one of the two available statutory sanctions, unless EPA finds a lack of good faith, in which case both sanctions apply. By contrast, under EPA's interpretation of section 110(m), the agency has discretion to impose "either or both the highway funding or 2 to 1 offset sanctions at any time after EPA makes a finding pursuant to section 179(a)." EPA Opinion at 27.

Under EPA's interpretation, the agency has full discretion to impose both statutory sanctions on a state, without regard to considerations of bad faith, at any time after the finding of deficiency. However, under the express language of section 179(a), after the 18-month clock has run its course, only one of the two available sanctions are to be applied, unless there is a finding of bad faith. Thus, EPA's interpretation does not resolve the incongruity discussed above.

B. Legislative History

In our earlier opinion, we stressed that the legislative history as a whole and the most pertinent portion of it in particular--the Report of the House Committee on Energy and Commerce²--support the conclusion that the Congress intended to allow states 18 months to come into compliance after EPA determinations of SIP deficiency before sanctions may be imposed. In responding to our discussion of the legislative history of sections 179 and 110(m),³ EPA argues that each piece in isolation is not persuasive.⁴

²The House Energy and Commerce Committee considered and amended both sanctions provisions at issue here, and the House language prevailed on these provisions. See 136 Cong. Rec. E3713-14(daily ed. Nov. 2, 1990) (statement of Chairman Dingell).

³EPA points to an additional element of the legislative history, the House Public Works and Transportation Committee Report, which states that "H.R. 3030 provides discretionary authority for the EPA Administrator to impose sanctions." H.R. Rep. No. 490, Part 3, 101st Cong., 2d Sess. 5 (1990). From this statement, EPA concludes that the Public Works and Transportation Committee believed that EPA has discretionary sanctioning authority under section 110(m) separate from the mandatory authority of section 179. EPA Opinion at 21. However, the context of the quoted sentence is a discussion of the range (rather than the timing) of sanctions available for the EPA Administrator to select and the Committee's views as to the circumstances under which one of the sanctions should be selected rather than the other. Id. Thus, it is likely that the Committee's use of the word "discretionary" refers not to alternate authority under section 110(m), but instead to the EPA Administrator's prerogative under the enacted section 179 to choose which sanction to impose.

⁴For example, the EPA General Counsel urges that statements in hearings by officials of her own agency concerning the Administration precursor to the law that was enacted as the Clean Air Act Amendments of 1990 are not to be relied upon. We do not view these statements as determinative of the intent of Congress. We take them into account only as part of the whole history of the sanctions provisions, and only to the extent that they shed light on it. In this regard, we believe that the EPA spokesperson's uncontradicted comments during congressional hearings after the Energy and Commerce Committee amended the bill, to the effect that states would "have" 18 months to correct deficiencies so as to avoid sanctions, support the position that Congress meant (continued...)

However, neither EPA nor we have identified any evidence in the legislative record to indicate that Congress intended to grant EPA authority to impose sanctions on states whose SIPs EPA determines to be deficient immediately after that determination.

EPA concedes that the Energy and Commerce Committee Report is probative concerning the intent of Congress with respect to the sanctions provisions. However, we disagree with the agency's view of the Committee's report language.

The Committee report directly answers the question at issue here. It says: "To give states operating in good faith an opportunity to correct their failures, 18 months is provided for States to correct deficiencies before sanctions apply." H.R. Rep. No. 490, Part 1, at 228 (emphasis supplied). EPA contends that this language "indicates that EPA has the authority to cut short the 18-month period." EPA Opinion at 20. Focusing on the clause, "to give states operating in good faith an opportunity to correct their failures," EPA argues that this clause means that "EPA must have the authority to provide less time to states not correcting deficiencies in good faith." Id.

We do not agree with this reading of the Committee language. The report says that ". . . 18 months is provided for States to correct deficiencies before sanctions apply." Id. (Emphasis supplied.) The 18-month grace period is afforded to all states whose SIP submittals have been found deficient. The report does not suggest that EPA has authority, under section 110(m) or otherwise, to provide less time to states which the agency believes are not correcting deficiencies in good faith.

Indeed, the language of section 179 and its legislative history establish that the distinction in the treatment of states operating in good faith and those that are not does not lie in the amount of time they receive to correct deficiencies. Both receive 18 months. The distinction in treatment lies in the number of sanctions to be imposed on them if they fail to correct the deficiencies by the end of the 18-month grace period. As the Committee report states:

⁴(...continued)
to allow such a grace period. See Provisions of H.R. 3030, the Clean Air Act Amendments of 1989, that Fall Within the Jurisdiction of the Committee on Public Works and Transportation, 101st Cong., 2d Sess. 45 (1990) (statement of Richard D. Wilson, Director, Office of Mobile Sources, U.S. Environmental Protection Agency).

"If the State has not corrected such deficiency within 18 months from the Administrator's finding, determination, or disapproval, one of the two listed sanctions in section 179(b) is to apply immediately upon expiration of such 18-month period Both sanctions are to apply at the expiration of the original 18-month period if the Administrator finds that the State is not making a good faith effort to rectify the deficiency."

Id.

Thus, in our view, the clause on which the EPA Opinion focuses--"to give states operating in good faith an opportunity to correct their failures"--should be read as stating a self-evident proposition. That proposition is that states operating in good faith in an effort to correct their deficiencies can make effective use of the 18-month grace period for that purpose and avoid the imposition of sanctions. We do not read it to authorize EPA to cut short the grace period for those states it determines are not acting in good faith.

EPA also argues that the Committee language quoted above discussing the operation of section 179(a) only sets forth the internal requirements of section 179(a), and does not contradict EPA's interpretation of section 110(m). EPA Opinion at 19. Even if this is true, the fact remains that there is nothing in the Committee report's discussion of the sanctions provisions to suggest that EPA might have discretionary authority, under section 110(m) or elsewhere in the statute, to disrupt the detailed sanctions timetable established by section 179 and outlined in the Committee report. The Committee's section-by-section analysis of section 110(m) contains no suggestion that the provision was intended to override the 18-month timetable of section 179. Indeed, the Committee's analysis does not mention the "at any time" language. In our view, the language of the Committee report, taken as a whole, demonstrates that the only timetable for the imposition of sanctions is the 18-month period provided in section 179.

C. Purpose of the Sanctions Provisions

EPA argues that our interpretation of the statute runs counter to the purpose of the Act because it would allow a guaranteed extension of 18 months beyond statutory due dates for states, rather than providing an incentive for states to make diligent efforts toward timely compliance throughout the 18-month period. EPA Opinion at 15. According to EPA, Congress's "desire to encourage quick compliance with SIP requirements can be inferred in section 179(a), where one or both sanctions are imposed automatically after 18 months. Id. at 10.

While we do not doubt that Congress's objective in enacting the sanctions provisions was to encourage states to come into compliance with Clean Air Act requirements, in our view, the establishment of an 18-month grace period to provide states an opportunity to come into compliance is consistent with that objective. Given the complexity of the Clean Air Act requirements, it was realistic for Congress to afford states this period of time to correct deficiencies before the imposition of severe sanctions on them. Moreover, contrary to EPA's assertion, under the statutory scheme as we view it, states would have a strong incentive to make good faith efforts toward timely compliance throughout the 18-month period, because if EPA determines that they have not done so, it must impose two sanctions on them.

D. Effect of Section 110(m)

EPA points out that our reading of the sanctions provisions does not give effect to the "at any time" language in section 110(m). In attempting to explain the presence of the "at any time" phrase in section 110(m), we suggested that one possible explanation could be inadvertence. We recognize the obvious problem with this view of section 110(m)--it reads the "at any time" language out of the statute as surplusage. This kind of statutory construction, we agree, should be employed only sparingly. It constitutes a rare exception to the normal rule of statutory construction, that every word of a statute should be given effect, if possible. For that reason, we were reluctant to endorse inadvertence as the explanation, but offered it only as a possible one.

We have considered other possible explanations for the "at any time" phrase--explanations that permit a construction of sections 179 and 110(m) which would accord full weight to both provisions without diminishing the force of either. We have been unable to find any possible explanation that is without serious flaws. Whatever function, if any, the "at any time" language of section 110(m) may serve, we remain unpersuaded, through our analysis of the language of the provision and its legislative history, that it authorizes EPA to override the 18-month grace period of section 179.

E. Standard of Review in Federal Court

EPA states that the standard of review to be used by a federal court called upon to examine an agency construction of a statute it administers was articulated in Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837 (1984) and its progeny. We agree that the standard of review used by federal courts in such circumstances is the one set forth in Chevron. We also recognize that, under

Chevron, courts often accord deference to agency interpretations of law. However, we do not believe that the Chevron doctrine would compel a court to accept the EPA's interpretation of the Clean Air Act provisions at issue here.

As EPA notes, Chevron teaches that when a court reviews an agency's construction of a statute it administers, the first question is whether Congress has spoken to the precise question at issue. 467 U.S. at 842. In Chevron, the Supreme Court stated: "If a court, employing traditional tools of statutory construction, ascertains that Congress had an intention on the precise question at issue, that intention is the law and must be given effect." 467 U.S. at 843, n. 9. (Emphasis added.) Thus, judicial deference is constrained by a court's obligation to honor the clear meaning of the statute, as revealed by its language, purpose, and history. Quinlivan v. Sullivan, 916 F.2d 524, 526 (9th Cir. 1990). Accord Klickitat County v. Columbia River Gorge Comm'n, 770 F. Supp. 1419, 1427 (E.D. Wash. 1991) (first step in judicial review of an agency's construction of a statute is to consider whether Congress has addressed the precise question at issue, either in statutory language or in its legislative history and if so, Congress's interpretation is controlling); Lamkin v. Bowen, 721 F. Supp. 263, 267 (D. Colo. 1989) (pivotal issue with respect to any agency interpretation of a statute is congressional intent; in reviewing agency construction of a statute, court first considers whether Congress addressed the precise question at issue, either in statutory language or in legislative history).

As discussed here and in our earlier opinion, we find evidence of congressional intention, principally through the legislative history, on whether section 110(m) of the Clean Air Act, which states that EPA may impose sanctions "at any time (or at any time after)" a finding of SIP deficiency, authorizes EPA to impose sanctions on a state for SIP deficiencies with respect to Part D requirements of the Clean Air Act prior to the expiration of the 18-month grace period set forth in section 179 of the act. We conclude that Congress intended for EPA to wait the 18-month grace period.

We acknowledge that the issue presented here is a complex and difficult one. Both readings of the language of the statute and its legislative history present difficulties in understanding congressional intent. Thus, it is possible that a court might reach a conclusion different from ours,

and in such circumstances, might give deference to EPA's interpretation of sections 110(m) and 179.⁵

II. PROPOSAL OF SANCTIONS PRIOR TO A FINDING OF SIP DEFICIENCY

EPA continues to maintain that it may legally issue a formal proposal of sanctions against a state before it has found that the state's SIP is deficient and even before the state has submitted its SIP.⁶ We remain unpersuaded that such action by EPA is legally authorized.

First, as discussed in our earlier opinion, we believe that a proposal of sanctions prior to a finding of SIP deficiency--or even the submittal of the SIP--is not consistent with the statutory scheme plainly contemplated in the Clean Air Act. In that opinion, we stated that the statutory sanctions scheme contemplates a multi-step process, beginning with the submittal of a SIP and ending with the imposition of sanctions. While EPA concedes that the process we discussed is "one reasonable approach," the agency points out that this process is not explicitly set forth in the statute. EPA Opinion at 30.

However, EPA does not dispute that the statutory sanctions scheme clearly contemplates a process commencing with the state's submittal of its SIP or SIP revision. Nor does EPA dispute that the key condition precedent to the imposition of sanctions is a finding of inadequacy by EPA. The finding provides the legal basis, required by both section 110(m) and section 179, for proceeding to the imposition of

⁵As far as we know, EPA's authority with respect to the timing of sanctions has not been litigated. We note that there is a recent Court of Appeals decision on petitions to review the EPA's vehicle inspection and maintenance final rule. This decision addresses issues other than the ones in our October 21, 1993, opinion. However, in passing, the court appears to adopt, without discussion, the EPA view as to when it may impose sanctions. Natural Resources Defense Council v. EPA, No. 92-1535, 1994 U.S. App. LEXIS 10129, at *7-8 (D.C. Cir. May 6, 1994).

⁶As noted in our original opinion, EPA's April 13, 1993, letter to California Governor Pete Wilson stated that EPA could propose sanctions in anticipation of the state's actual failure to submit an adequate SIP by November 15, 1993. Even though that deadline has now passed, we address EPA's comments on this issue because, as reflected in its November 23, 1993, opinion, the agency continues to assert that it has the authority to propose sanctions prior to finding a SIP deficient.

sanctions. Thus, we believe--and EPA agrees--that the Administrator's authority to impose sanctions on a state, whether under section 110(m) or under section 179,⁷ is predicated on and triggered by a finding under section 179 that a state's SIP is deficient. If that condition precedent has not been satisfied, no legal basis for sanctions exists, and therefore sanctions cannot be imposed. In our view, if there is no legal basis for the imposition of sanctions, there also can be no legal basis for formally proposing them.*

Second, we believe that the "notice" of sanctions afforded by a proposal of sanctions prior to a finding of SIP deficiency would not satisfy the notice and comment requirements of the Administrative Procedure Act (APA). As we noted in our earlier opinion, a proposal of sanctions under such circumstances would constitute no notice at all, because it could not possibly "provide sufficient factual detail and rationale for the rule to permit interested parties to comment meaningfully." Florida Power & Light Co. v. United States, 846 F.2d 765, 771 (D.C. Cir. 1988), cert. denied, 490 U.S. 1045 (1989).

Such a proposal of sanctions could not provide the rationale for the imposition of sanctions because that rationale would not yet exist. Under EPA's theory of adequate notice, the agency would be free to propose (but, EPA concedes, not impose) sanctions against a state before the state has

*As we stated in our original opinion, we do not believe that section 110(m) is an alternative to section 179 for the imposition of sanctions after a finding of SIP deficiency with respect to a required Part D plan revision such as the one at issue here. However, assuming arguendo that section 110(m) does provide such alternative authority, for the reasons outlined in this section and in our earlier opinion, we do not believe EPA may legally propose sanctions against a state under section 110(m) before finding that the state's SIP is deficient.

*EPA is correct when it points out that section 110(m) does not expressly address the question of when sanctions may be proposed. EPA Opinion at 25. However, EPA also asserts that the language of the section stating that EPA may impose sanctions "at any time (or at any time after)" EPA makes a finding of deficiency necessarily implies that EPA has the authority to propose sanctions before it issues the final finding. Id. We do not believe such an implication is warranted. Indeed, this language more likely means only that a finding triggers the authority to impose sanctions.

submitted its SIP if EPA believes the SIP, when ultimately submitted, might be found deficient. Followed to its logical extreme, under this theory, EPA would be free to propose sanctions against every state well before the deadline for SIP submittals. The grounds for such proposed sanctions would be that each of the states might submit a SIP revision that EPA might find deficient, and therefore, a legal basis for sanctions might come into existence at some point in the future.

EPA, of course, has not threatened, nor even suggested, taking such extreme action. Nonetheless, it is difficult to see what legal curbs would bar the agency from doing so under its theory of adequate notice, other than EPA's discretionary exercise of restraint. In our view, such "notice" is speculative and conditional and, as such, clearly violates the requirement that, "The process of notice and comment rulemaking is not to be an empty charade." Connecticut Light and Power Co. v. NRC, 673 F.2d 525, 528 (D.C. Cir.), cert. denied, 459 U.S. 835 (1982).⁹

Moreover, as also discussed in our earlier opinion, in many cases, EPA will not be able to provide definite and sufficient information on at least two of the issues that

⁹EPA further argues that, with respect to the proposal of sanctions against California that was at issue here, there is less ground for concern that the proposal to impose sanctions would not provide sufficient notice, because the proposal to impose sanctions was to be made after the proposed disapproval action. EPA Opinion at 28. This was so, according to EPA, because, on the basis of its "conditional approval" regulation, EPA had already proposed to approve, and in the alternative, proposed to disapprove, California's "committal" SIP committing the state to adopt the EPA-required enhanced vehicle I & M program by November 15, 1993, depending on whether California adopted the requisite authorizing legislation and regulations to allow the state to meet its commitment.

As noted above, EPA's action proposing to approve, and in the alternative, to disapprove, California's "committal" SIP was taken pursuant to the agency's "conditional approval" procedure. The U.S. Court of Appeals for the District of Columbia Circuit has recently ruled this procedure unlawful. Natural Resources Defense Council v. Environmental Protection Agency, No. 92-1535, 1994 U.S. App. LEXIS 10129 (D.C. Cir. May 6, 1994). Thus, whatever merit EPA's argument may have had, it has none now, because its legal underpinning--the "conditional approval" procedure--has been held invalid by the Court of Appeals.

EPA itself concedes would be relevant to the imposition of sanctions under section 110(m). According to EPA, two issues in a section 110(m) rulemaking are: (1) the timing of the sanction or sanctions; and (2) the extent of the geographic scope of the sanction or sanctions. EPA Opinion at 27.¹⁰

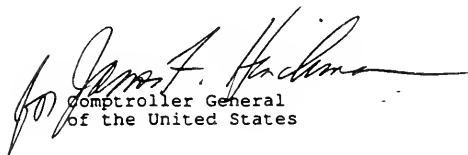
Under the explicit language of section 110(m), sanctions cannot be imposed statewide during the 24-month period following a finding of SIP deficiency where a political subdivision is principally responsible for the deficiency. Thus, EPA frequently will not be able to give definite notice of the geographic scope or of the timing of sanctions prior to the determination of SIP deficiency because at such a premature stage it will not be known which political subdivision will be at fault, since no fault will yet exist. In its opinion, EPA asserts that it will be able to give notice concerning these issues but does not explain how it can do so.

For the reasons set forth above and in our original opinion, we believe that even if EPA were correct in its contention that it may use section 110(m) to impose sanctions on a state for deficiencies in Part D SIP submittals, it may not, consistent with the statutory scheme of section 110(m) or the notice and comment requirements of the APA, propose sanctions before making the requisite finding under section 179.

¹⁰EPA identifies as a third issue in the section 110(m) rulemaking the question of which sanction or sanctions it will impose. See EPA Opinion at 27. It is not clear from EPA's discussion how it will exercise the discretion it claims it has under section 110(m) to determine which sanction or sanctions it will impose. Thus, as EPA admits, it is possible that the finding of SIP deficiency may play a role in EPA's determination concerning which sanction or sanctions to impose. EPA Opinion at 27. Therefore, prior to the SIP deficiency determination, EPA may not be able to provide sufficient notice concerning this issue either.

We hope our comments are helpful to you. In accordance with our usual procedures, this opinion will be available to the public 30 days from its date.

Sincerely yours,


Comptroller General
of the United States



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 5 1994

OFFICE
ADMINISTRATIVE
AND FISCAL
MANAGEMENT

Honorable Louis Stokes
Chairman, Subcommittee on
VA, HUD and Independent Agencies
Committee on Appropriations
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

The purpose of this letter is to inform you of four reprogrammings which exceed the \$500,000 reprogramming limitation. The first reprogramming is to our Fiscal Year 1993 Operating Plan carried over in FY 1994 for the Superfund appropriation. This reprogramming of \$15 million restores partially the administrative expenses reduction taken during the Enacted Operating Plan process.

The remaining three reprogrammings are to the FY 1994 Program Research and Operations Appropriation (PRO), Abatement, Control, and Compliance (AC&C), and Research and Development (R&D) appropriations. The PRO reprogramming realigns \$6,720.2 across the Agency to cover the FY 1994 locality pay.

The AC&C reprogramming replaces the \$16.6M previously identified for the National Action Plan. Of these funds, \$15.0M will support high priority Clean Air Act projects, and \$1.6M will support Office of Policy Analysis activities which promote implementation of the Clean Air Act.

The final reprogramming is for \$877,000 in the Research and Development appropriation. This reprogramming represents a realignment of funds within the Office of Research and Development to support the Butte Mine Waste Technology Pilot Program.

The enclosed information fully explains the action we are taking. I hope these actions meet with your approval. If I can provide further details, please let me know.

Sincerely,

15/

Kathryn S. Schmoll
Comptroller

Enclosures (4)

bcc: Michelle Burkett
Elizabeth Craig (3302)
BD Branch Chiefs (3302)
Karen Johnson (OC)
Form Sec/BFC (3302)

David O'Connor (3301)
Terry Ouverson (3302)
Sharita McLean, OARM (3101)
Budget Division Files
Official File Code: 412E.1

3302 - ABROWN/ab/5/04/94 263-1176 DISK: CongReprog/CONLETR
DOCUMENT CHECKED THROUGH SPELLCHECK

ENVIRONMENTAL PROTECTION AGENCY

FY 1994 REPROGRAMMING IN EXCESS OF \$500,000
(Dollars in Thousands)

APPROPRIATION	PROGRAM ELEMENT TITLE	INCREASE	DECREASE
Abatement, Control, and Compliance	Emission Standards & Technology Assessment (1)(1)(A)	\$5,480.0	
	State Program Policy Guidelines & Air Standards Development (3)	\$200.0	
	Air Quality & Emissions Data Management & Analysis (1)(1)	\$3,470.0	
	Emission Standards, Technical Assessment & Characterization (1)(1)	\$1,100.0	
	Testing, Technical & Administrative Support (1)(1)	\$1,300.0	
	Emissions and Fuel Economy Compliance (1)(1)	\$2,100.0	
	Stratospheric Ozone (1)(1)	\$450.0	
	Acid Rain Program (1)(1)	\$900.0	
	Office of Policy Analysis	\$1,600.0	

Of the total \$16.6 million, \$15.0 million will provide support to several high priority Clean Air Act projects. The Clean Air Act amendments require the Agency to promulgate 25% of its air toxics standards by 1994 and an additional 25% by 1997. Many of the near-term standards are underway; these funds will be applied to completing technical work necessary to meet the 1997 deadlines. In addition, the funds will allow us to accelerate the review of the PM-10 National Ambient Air Quality Standards. State implementation plans for ozone and PM-10 as well as support State and local air toxics needs.

- 2 -

Funding will be provided for compliance for reducing CFCs and for completing the next round of C substitute proposals. In the Acid Rain area, funds will be provided for regulatory support, the Allowan Tracking System and completing the Phase I permits. Funds will be provided to replace obsolete vehicle emissions testing equipment and buy new equipment required by new test procedures. Support will also be provided for the transportation conformity rule recently issued.

The remaining \$1.6 million is being provided to the Office of Policy Analysis to support activities which promote implementation of the Clean Air Act as well as other Agency priorities. These activities include projects relating to particular emissions, air pollution effects in water bodies, environmental justice, and ozone attainment strategies, pollution prevention strategies, the economy and the environment.

FY 1994 FORWARD FUNDING PROPOSALS

CERTIFICATION & FUEL ECONOMY SYSTEM
 TRANSPORTATION EFFICIENCY SYSTEM
 NAACS REVIEW/PM - 10, SO2
 MAFEL EQUIPMENT
 RULE DEVELOPMENT/MACT STANDARDS
 ACID RAIN/PHASE II NON FLE
 ACID RAIN/ALLOWANCE TRACKING SYSTEM
 ACID RAIN/PHASE I PERMITTING
 STRAT OZONE/BNMP
 STRAT OZONE/HOTLINE
 TONICS SUPPORT/MACT TOXICS INFRASTRUCTURE

2,100.0 DEVELOPMENT & REPLACEMENT OF FUEL ECONOMY & EMISSIONS DATABASE
 1,100.0 PART OF CLIMATE CHANGE ACTION PLAN - BUT NOT GREEN
 685.0 ANALYZE VISIBILITY DATA FROM PM-10 SPECIAL STUDIES, SO2 MODELING PROCEDURES
 1,300.0 PURCHASE EQUIPMENT TO MEET NEW CERTIFICATION STANDARDS
 7,000.0 SUPPORT 7-YEAR MACT STANDARDS, MWC RULE, HON, CONSUMER PRODUCT PROGRAM, CTOs
 400.0 UNDER A COURT-ORDERED SCHEDULE TO BEGIN WORK ON THIS RULE BY 4/94
 400.0 FUND TWO MODULES OF THE ATIS THAT WERE POSTPONED TO 85
 100.0 ADDITIONAL DATA & ANALYSIS FOR PHASE I PERMITS
 250.0 COMPLETE REVIEW OF SUBSTITUTES BY SEPTEMBER
 200.0
 1,295.0 URBAN AIR TOXICS, SL GUIDANCE

16.0



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 3 1994

OFFICE OF CONGRESSIONAL
AND LEGISLATIVE AFFAIRS

The Honorable John D. Dingell
Chairman
Subcommittee on Oversight and Investigations
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Enclosed, for insertion into the hearing record, are EPA's responses to follow-up questions from the June 22, 1994 hearing before the Subcommittee on Oversight and Investigations on EPA's implementation of the reformulated gasoline requirements. I hope this information will be useful to you and members of the Subcommittee.

If you or your staff have any questions regarding this information, please contact Mary Nichols, Assistant Administrator, Office of Air and Radiation at (202) 260-7400.

Sincerely,

Handwritten signature of Christopher P. Hoff in cursive.

Christopher P. Hoff
Deputy Director
Legislative Analysis Division

Enclosure

EPA'S RESPONSES TO QUESTIONS FROM CHAIRMAN JOHN D. DINGELL
FROM THE JUNE 22, 1994 HEARING

QUESTION 2:

To what extent do you expect RFG to be exported to the U.S. from countries other than Venezuela? Do you anticipate conventional gasoline exports after January 1, 1995 to the U.S. from such countries? Are such exports, even though small percentage-wise, important to the U.S. suppliers? Will the proposed foreign refiner baseline rule apply to such finished gasoline, if the shipments are not RFG?

ANSWER 2:

Petroleos de Venezuela (PDVSA) is the only foreign refiner which has formally approached the Environmental Protection Agency (EPA) about importing RFG, although through informal inquiries and discussions EPA has become aware of a few other potential foreign sources of RFG in Europe, South America, and Canada. In addition, the government of Spain sent a diplomatic note through the State Department objecting to the December 15 rule regarding foreign refiner baselines. We do expect that the U.S. will receive a limited volume of both RFG and conventional gasoline from such countries starting on January 1, 1995.

Despite the small percentage of gasoline from foreign sources consumed in the U.S., it is clear that foreign gasoline plays an important role in the U.S. gasoline market. There is a significant contingent of gasoline importers and blenders who bring incremental supply to the market and typically do so at very competitive prices. And in some areas of the U.S. that are served not by gasoline pipelines but by water ports, importers may supply a substantial portion of the gasoline market. A prime example is Boston, where approximately 15% of the gasoline market is supplied by importers.

QUESTION 3:

As I understand the proposed foreign refiner rule, it authorizes an importer, like CITGO, to use a baseline established for a foreign refinery as the importer's individual baseline, but the importer does not establish the baseline. That is done by the foreign refiner by petition to you. Is that correct?

The proposal appears to preclude the EPA from enforcing these requirements against the foreign refinery, including applying penalties. As I understand the proposal, if the requirements are not met, the importer's baseline reverts to a baseline that would apply absent the foreign refiner's baseline. In short, the proposed rule does not subject the Venezuelans to U.S. jurisdiction. They can't be fined, for example. Do you agree? If yes, how does the rule overcome EPA's concerns about enforcement, etc., of last year? Is this in reality a special rule for one entity that runs counter to the general purpose of the Clean Air Act of

uniformity and non-discrimination as between regulated entities, particularly those that are also competitors? Why is that a proper rule, taking into consideration your reply and that of Ms. Tierney to Questions 1 and 2? Why not enter into a bilateral agreement with Venezuela rather than a rule?

ANSWER 3:

You are correct in stating that in the proposal, individual foreign refiner baselines must be established by the foreign refiner under the requirements of §80.84 of the proposed rule. Foreign refiners desiring to establish such baselines must petition the Administrator following the requirements of §80.84(c). Any importer who imports gasoline from a foreign refinery with an individual baseline may apply that baseline to any fuel produced at that refinery.

You are also correct in your description of the enforcement tools proposed by EPA to assure compliance with the RFG program under the foreign refiner baseline proposal. EPA's authority to impose and enforce requirements on foreign refiners is not as clear as its authority over persons who import gasoline into the United States. As a result, EPA has elected under the proposed rule to hold domestic importers liable for the quality of imported RFG. Foreign-produced reformulated gasoline would be subject to the full array of monitoring and enforcement devices available to EPA. EPA believes that importers' potential liability, including but not limited to exposure to potential relegation to compliance with the statutory baseline, will be adequate to ensure that importers will import gasoline using an individual foreign refinery's baseline only where the importer has sufficient confidence the requirements of this program will be met. These compliance monitoring and enforcement provisions, along with additional gasoline tracking requirements, are equivalent to EPA's compliance monitoring and enforcement authority over domestic refiners, and they overcome EPA's earlier concerns about the enforceability of individual foreign refinery baselines.

Far from being a "special rule" which favors one entity, this proposed regulation applies equally to all similarly situated importers and is an attempt to resolve the complicated issue of baselines for foreign refiners with the intent of achieving several important, but different, goals. One goal is that the environmental benefits intended for reformulated gasoline by the Clean Air Act (CAA) be realized. The other goal is that all regulated parties who are similarly situated be treated alike, with the differences in treatment between domestic and foreign refiners limited to those measures necessary to appropriately accommodate differences in their situations and protect human health and environmental values.

There are a number of reasons why EPA's proposal of this rule on foreign refiner

baselines is a more appropriate approach than a bilateral agreement between the United States and Venezuela. First, a bilateral agreement would apply only to PDVSA, whereas the EPA's proposed rule will apply to all foreign refiners equitably. Second, a bilateral agreement could not address the roles and responsibilities of the domestic importer in bringing foreign RFG into the country, which would create an enforcement problem which is fully addressed by EPA's proposal. And third, while it is clear that EPA has proposed this rule following requirements for public participation, notice and comment under the CAA, it is unclear what public process, if any, would be associated with a bilateral agreement.

QUESTION 5:

I understand that the CAA requires EPA to establish appropriate tolerances for RFG. Has that been done and are they consistent with Reg. Neg.? If not, why not? What other rules are needed under section 211(k) of the CAA relative to RFG and related matters and what is the status of such rules?

ANSWER 5:

Section 211(k)(2)(B) of the CAA requires EPA to establish an enforcement test tolerance for oxygenate testing, and using its discretion, the Agency has also adopted enforcement testing tolerances for Reid Vapor Pressure (RVP) and benzene. EPA chose to announce these tolerances in the Preamble to the Final Rule, and to not include them as part of the final regulations. This is consistent with the Regulatory Negotiation "Agreement in Principle" which contains the provision that "EPA will establish appropriate test tolerances." The downstream test tolerance for RVP is 0.30 pounds per square inch (psi), the tolerance for oxygen is 0.30 weight percent, and the interim tolerance for benzene is 0.21 volume percent. In the case of benzene, the Preamble also describes a process for establishing a more permanent tolerance based on additional laboratory test data. Administrator Carol Browner signed the Technical Amendments to the RFG Final Rule on June 27, 1994 and the Renewable Oxygenate Requirement Rule on June 30, 1994. Also, EPA published a comprehensive guidance document on the RFG program titled "Reformulated Gasoline and Anti-Dumping Questions and Answers" on July 1, 1994. Besides the proposal currently under consideration, there are no additional rules needed to implement the RFG program.

QUESTION 6:

At the Subcommittee's hearing, EPA and DOE claimed that the industry had adequate time to prepare for compliance with the RFG rule. EPA and DOE noted that the final RFG rule issued in February 1994 was substantially similar to the parameters of the rule contained in the Reg. Neg. agreement. Of course, the DOE and EPA testimony did not mention that in 1993 the EPA also proposed the Bush

ethanol rule. According to EPA documents provided to the Subcommittee, that proposal was not consistent with the Reg. Neg. That proposal created uncertainty which was not resolved until December when the EPA abandoned it. In a letter to the Subcommittee on June 21, 1994, the American Petroleum Institute (API) said:

Even though Congress provided the industry with over three years lead time, the refining industry now has only three months before the RFG production will begin and the industry still does not know what fuel it must sell on January 1, 1995....The issues needing clarification are not minor ones, but are major concerns that directly affect the implementation of the RFG rule. For example, refiner baselines were due to EPA by June 1, 1994 but the industry never received crucial guidance (in the form of a direct final rule) that was needed for preparing their baseline submissions.

As you know, the refiners form only a part of the industry that provides gasoline to consumers.

The Secretary of Energy, in her June 20, 1994 reply to my letter of April 21, said that the DOE does not "anticipate any significant shortages or pricing problems" as a result of the RFG requirements. The Subcommittee's concern is the lateness of final promulgation of the RFG rule, the delay in providing guidance, clarification, and corrections of the rule and needed interpretations, the addition of two new proposals, and the many other factors that could contribute to forming shortages or pricing problems. The Subcommittee, like the DOE, is particularly concerned about the distribution system and the logistics generally. Has DOE or EPA analyzed the capabilities of the product distribution system to handle numerous grades of gasoline, storage capacity constraints, etc., to ensure that there will be adequate supplies of RFG? If yes, please provide the results. If no, please explain why not.

ANSWER 6:

EPA has been working closely with DOE and the oil industry to calculate the anticipated demand for RFG and ensure smooth implementation of the RFG program. Since most of the nation's refining industry will comply with the RFG regulations using the simple model, refiners have been on notice of the essential parameters for RFG certification since August 1991 when the Reg Neg Agreement in Principle was signed. It contained the exact parameters of the simple model, and industry has used the resulting lead time to prepare to comply.

EPA took implementation and logistics concerns into consideration as much as possible during the Reg Neg and rulemaking processes with a particular emphasis on maintaining the fungibility of the distribution system. From the very beginning, we have actively solicited industry input. EPA staff has met frequently with members of the oil industry to discuss operational issues, and organizations such as API, the National Petroleum Refiners Association, importers, marketers, and pipelines have shared their ideas and concerns with us. We have addressed many of these concerns in "Reformulated Gasoline and Anti-Dumping Questions and Responses," distributed on July 1, 1994. EPA has also hosted and participated in a series of workshops to discuss RFG supply and operational issues, and has

established a Taskforce which convened on July 22, 1994 to address and monitor these issues throughout the next five months, as we approach the January 1, 1995 program start date.

Finally, as previously mentioned EPA has conducted a detailed analysis to determine whether sufficient renewable oxygenate supply, distribution, tankage, and blending capacity would be available in 1995 and 1996 to meet the program requirements and this analysis is contained in the Regulatory Impact Analysis to the final rule. As a result of its own analysis, and after careful consideration of all comments received, EPA determined that it is feasible for sufficient feedstocks, production capacity, transportation capacity, and blending capacity to be available to meet the full 30 percent requirement for 1996.

QUESTION 7:

The 1990 baseline values for certain fuel properties are, as the API points out, a vital element of complying with the simple model RFG requirements. The rule provided industry with the opportunity to adjust actual 1990 refinery production documentation if 1990 was an unrepresentative year. It is my understanding that industry submitted an adjusted and an unadjusted baseline. Production of RFG is likely to begin as early as September. If EPA has not approved these baselines by September can industry utilize their submitted adjusted baseline for purposes of producing RFG and conventional gasoline for 1995?

In the case of diesel fuel, the EPA had to exercise prosecutorial discretion. What is the EPA plan regarding enforcement after December 1, 1994?

ANSWER 7:

The refinery specific 1990 baselines serve two purposes in EPA's regulations. First, under the anti-dumping provisions of the final rule, refiners must ensure that their conventional (non-reformulated) gasoline produced in 1995 and later years is no more polluting than the gasoline they produced in 1990. Second, during the first three years of the reformulated gasoline program, the individual baseline establishes certain specific performance requirements for refiners and importers. After the first three years, all refiners will have to meet the same performance standards for RFG relative to the baseline specified in the CAA.

The Agreement in Principle reached through regulatory negotiation in August 1991 described the basic requirements for the refinery specific baselines. This was supplemented in EPA's proposal in the Spring of 1992. Even though the final rule was not signed until December 1993, refiners have been on notice for some time as to the kind of information needed to develop an individual baseline and the role the baselines would play in EPA's regulations for both reformulated and

conventional gasolines. The final regulations clearly described the baseline requirements and how the baselines are to be determined. Refiners that faithfully follow the final regulations in submitting their baselines should be confident that EPA will approve it, and as such, should be confident of the terms of their actual baseline.

EPA received 185 refinery, importer, and blender baseline submittals in keeping with the June 1 deadline for such submittals. EPA is currently processing these baselines and will attempt to act on as many as possible by September 1. However, many of the baseline submittals were not complete. For these baselines, EPA will work closely with the refiners to ensure a complete submittal and an approvable baseline. In addition, if refiners still needed to collect data to determine their baseline, their submittals are not due to EPA until September 1. EPA expects as many as 100 additional baselines to be submitted by the September 1 deadline. We will do everything possible to expedite the process and approve these submittals in time for the initiation of the RFG program on December 1 at the refineries. However, most (if not all) refiners must begin producing RFG earlier than December and as such may have to do so without an approved baseline. If this is the case, then to the extent they faithfully followed our regulations, they should be confident that EPA will approve their baseline and, thus, confident that the baseline they submitted is what they will be required to comply with. Even if their baseline submittal is not approvable without modification, however, compliance with the baseline is a year-round average requirement. As a result, they do not necessarily have to comply with their baseline for the fuel they produce at the beginning of the program as long as they are able to make up any shortfall later in the year.

EPA does not expect any significant RFG supply problems, or a need for any use of prosecutorial discretion associated with RFG implementation in 1995. The various reasons leading to the supply problems in the case of diesel fuel are not applicable to the start of the RFG program. In 1993, there was a shortage of low-sulfur diesel in the midwest because flooding prevented normal barge traffic and caused soil erosion, shutting down a major midwestern supply pipeline. Moreover, there was an unanticipated demand for low-sulfur diesel over high-sulfur diesel fuel. Finally, terminals and retail stations were required to comply with the requirements on the same day, allowing some upstream regulated parties to attempt to come into compliance very close to the deadline. In contrast, the RFG rule contains a phase-in period which will prevent any last-minute compliance problems. Terminals must begin supplying RFG on December 1, 1994. This will allow a

phase-in at the retail stations, avoiding any last minute demand spikes. The RFG program areas have been well-defined, and EPA has been working closely with DOE and the gasoline industry to monitor the anticipated demand for RFG. DOE expects there to be sufficient supply for RFG areas.

QUESTION 9:

Has EPA/DOE analyzed the capability of MTBE facilities to convert to produce ETBE? What logistical problems will be encountered if ethanol must be blended with RFG?

ANSWER 9:

EPA has analyzed both the ability of MTBE production to be shifted to ETBE production, and any logistical problems that might result with increased ethanol blending as a result of the renewable oxygenate program. It is a relatively straightforward process to convert existing MTBE production facilities to ETBE production, although it may still require anywhere from six months to two years to obtain the necessary permits and make the facility modifications. The potential for logistical problems during 1995 from the requirement for additional ethanol blending is one of the primary reasons EPA phased in the renewable oxygenate requirement in the final rule.

These issues were discussed at length section III.F. of the Preamble for the final rule and section I. of the Regulatory Impact Analysis.

QUESTION 10:

While I support the use of ethanol, I am also concerned that the EPA, in proposing and promulgating rules, ensure that they comply fully with the applicable law which, in this case is section 211 of the CAA. EPA's integrity in rulemaking is, at the very least, open to question when the EPA acts otherwise. After examining Exhibit 8, together with Subcommittee Exhibit 4 which is a February 18, 1993 memorandum marked by the EPA as "Privileged and Confidential" from an attorney in EPA's Air and Radiation Division, and the above DOE materials, I am troubled to find that the EPA proposed the Bush rule with so little legal justification and question whether the most recent ethanol mandate is any better legally or otherwise after reading these exhibits.

At the hearing, I requested that the EPA consider the EPA concerns (pages 15-19) expressed in the July 1993 briefing memorandum (see exhibit 8) about the Bush proposal and explain how and to what extent those concerns are eliminated or substantially mitigated by the EPA's latest proposed ethanol mandate. In providing this response, please take into consideration exhibit 4 and the DOE analysis referenced above.

ANSWER 10:

EPA has relied heavily on the public comment period and on interactions with

participants in the regulatory negotiation to analyze issues and make any necessary modifications prior to promulgating the final rule. Such was the case with the "Bush" proposal, wherein EPA requested comments in the proposal on numerous aspects of its provisions to solicit help and assistance in evaluating any concerns and allow EPA to make the necessary adjustment to the final rule. In the case of the Bush proposal, however, the more in-depth evaluation of these concerns led to the conclusion that the proposal should not be finalized. The Preamble and Regulatory Impact Analysis to the December 1993 final rule for reformulated gasoline provide an in-depth analysis of the various reasons why EPA rejected the Bush proposal.

Many of the concerns with implementing the Bush proposal, however, such as reduced environmental benefits, lack of energy benefits, and the program being too burdensome, are not present with the Renewable Oxygenate Requirement. Since ethanol is not given credit toward meeting the requirements of the program during the summer months, the summertime VOC emission increases and lack of energy benefits that would have resulted from the Bush proposal are avoided. In addition, the provisions of the renewable oxygenate program are much more feasible to implement and as a result much less burdensome to the industry than the Bush proposal would have been. As a result, many of the concerns expressed in exhibits 4 and 8 do not apply to the Renewable Oxygenate Program as finalized. A full explanation of EPA's legal authority for the Renewable Oxygenate Program can be found in section III.A. of the Preamble to the final rule.

QUESTION 11:

Since writing to the EPA in our June 13 hearing letter about transportation conformity, the Administrator published a "General preamble for future proposed rulemakings" which I understand is the notice she referenced in her letter of March 30 to the Governor of Ohio. I do not understand how that notice is helpful to Ohio and other states. It is not a rulemaking and it states that the interpretations therein are not binding "as a matter of law." In addition to responding to the Subcommittee's question in my June 13 letter about conformity, please explain how this notice can grant conditional exemptions of the conformity NOx requirements and why is it not applicable in the Northeast?

Also, why does the EPA want to apply these conformity requirements in attainment areas. Please explain the legal basis for that policy. What is the status of that idea?

ANSWER 11:

The June 17 "Conformity: General Preamble for Exemption from Nitrogen Oxides (NOx) Provisions" states EPA's general policy with respect to the granting of NOx

exemptions from the requirements of the general and transportation conformity rules for certain areas outside the Ozone Transport Region which have three years of monitoring data demonstrating attainment. The notice is intended as a guidance document that explains how EPA generally intends to act on requests for NOx conformity exemptions for affected areas.

This General Preamble does not of itself grant conformity NOx exemptions because the Administrative Procedures Act requires EPA to undertake notice and comment rulemaking for each area-specific conformity NOx exemption. Consequently, the preliminary interpretations regarding intended Agency action on such requests that are expressed in the General Preamble do not become binding, as a legal matter, until the Agency has taken final action applying any such interpretations in a particular rulemaking on an individual area's exemption request. The policy expressed in the June 17 General Preamble represents a significant streamlining of the NOx exemption process, because it revises previous EPA policy which required exemption requests to be submitted as a state implementation plan (SIP) revision, and to be approved only as part of a redesignation request with an approved maintenance plan. The General Preamble states current EPA policy to allow exemption requests to be submitted and processed separately from--and even in the absence of--the redesignation request and maintenance plan. EPA has taken further steps to expedite the exemption process by delegating to the Regional Administrators the authority to grant conformity NOx exemptions based on monitoring data demonstrating attainment.

The transportation (and general) conformity rule allows for NOx exemptions if EPA finds that an area meets the same substantive tests established by section 182(f) of the CAA. Section 182(f) of the CAA establishes separate tests for areas inside and outside the Ozone Transport Region (OTR). It is clear from a technical standpoint that monitoring data showing attainment of the ozone standard is sufficient to demonstrate satisfaction of the section 182(f) test for areas outside the Ozone Transport Region since that test is based on a demonstration that "additional NOx reductions would not contribute to attainment"; therefore, the recent General Preamble applies to these areas. Uncertainty with respect to how areas in the OTR would satisfy the more stringent test required by the Act for such areas as a technical matter has caused EPA to deliberate longer on the possibility of providing appropriate guidance regarding exemptions for those areas. Exemptions even for areas in the OTR with monitoring data indicating attainment have not yet been ruled out.

In the notice of proposed rulemaking for transportation conformity, EPA indicated that the statute was ambiguous with respect to whether conformity applied only in nonattainment areas, or in attainment areas as well. See 58 FR 3771-3772 (January 11, 1993). EPA received significant public comment arguing that the statute should be read to apply conformity also in attainment areas, based on the wording of CAA section 176(c)(1) and the policy merits of such applicability. Similar comments were received arguing that conformity did not apply in attainment areas.

EPA continues to believe that the statute is ambiguous, and that it provides discretionary authority to apply these transportation conformity procedures to both attainment and nonattainment areas. EPA stated in the preamble to the final transportation conformity rule that EPA plans to carry out a separate rulemaking proposing to apply transportation conformity procedures to certain attainment areas (e.g., areas for which air quality is close to nonattainment levels). See 58 FR 62190-62191 (November 24, 1993). This rulemaking would take comment on the basic proposal to apply conformity in attainment areas and on the specific application of conformity in certain categories of attainment areas. EPA does not yet have an established schedule for the promulgation of this rule.

QUESTION 12:

Michigan submitted a redesignation for Southeastern Michigan last November (see enclosed letters from Governor John Engler). I understand that EPA's Region V has supported it, but Headquarters has not yet acted. The Governor believes that the state has performed all the requirements to achieve such redesignation. However, your staff recently told us that there are still some problems. I would appreciate your looking into this matter and providing me with an update of the status of this request, including identifying any actions that the state must take and why.

ANSWER 12:

The EPA proposed approval of the request to redesignate the Detroit-Ann Arbor, Michigan area to attainment on July 21, 1994 in the Federal Register. The public was afforded an opportunity to comment on the proposal from July 21 through August 22, 1994, and again from September 8 through September 23, 1994. A substantial number of comments were submitted, including comments from the Natural Resource Defense Council, American Lung Association of Michigan and the Sierra Club. A number of Canadian interests also expressed concerns with the redesignation, including the environmental coalition Pollution Probe, the Canadian Lung Association, the Ontario Ministry of Environment and Energy, Citizens

Environment Alliance, the Deputy Minister's Office of Environment Canada, the Windsor Legislative Assembly and the International Joint Commission. In order to successfully finalize approval of the redesignation, EPA must finally approve rules specifying reasonably available control technology for sources of volatile organic compound emissions, revisions to the national motor vehicle inspection and maintenance rule, and the section 182(f) NOx exemption petition, as well as address all concerns raised by the commenters noted above. It is anticipated that the redesignation should be finalized by December 1994 or January 1995.

EPA'S RESPONSES TO QUESTIONS FROM CONGRESSMAN SHERROD S. BROWN

QUESTION 1:

As you know, my concerns regarding the RFG rule have centered around the process in which this decision has been made and the effect it will have on my constituents in northeast Ohio. Recently, we have witnessed the difficulties encountered during the introduction of low sulfur diesel (which is only a minor portion of the fuel market) when the government only allotted a one month transition period for that specific fuel to be incorporated into the distribution system.

As you know, this new rule will effect nearly 1/3 of the entire U.S. gasoline market and billions of gallons of fuel. Faced with the fact that there still is not a final rule on the ethanol provision, and we have barely six months until the new product must be available across much of America, I am concerned about our ability to meet this deadline. Consequently, is the EPA concerned about recreating similar spot shortages and/or price spikes as we make this dramatic change in such a short time frame? Is there enough time for all effected industries to meet such a deadline? What studies has EPA done on this?

In addition, it is my understanding that there are special requirements for the storage and transportation of ethanol and gasoline. Without a final rule in place, have you studied the impact on pipelines, barges, rail, and trucks, and is there sufficient capacity to move this new product? To your knowledge, have the affected industries proceeded with the necessary capital expenditures to build the new infrastructure required for this change to ensure that they meet the January 1, 1995 deadline?

Do you anticipate any cost difference to the consumer once the new RFG is on line? How much difference?

Another of my concerns centers around the availability of sufficient tank storage space. The tight time frame may very well prohibit producers from being able to build new storage tanks for RFG and, therefore, may require them to utilize existing storage tanks to hold this new product, at the expense of other stored fuels. Since I believe these operators are good business people, assume they will displace their lower value products to make way for this new, mandated product during this time of tank shortage. I understand that in many cases the lower value products are home heating fuel. Could we potentially see a shortage of this product this winter due to a displacement of this product and a lack of sufficient tank space across the country? Have you considered this possibility?

In short, as we approach the deadline of January 1, 1995, has EPA given enough time to make sure that the market can make a seamless transition from one product to another?

ANSWER 1:

The final rule requiring renewable oxygenates was signed by Administrator Browner on June 30, 1994 and was published in the Federal Register on August 2, 1994. The final renewable oxygenate rule imposes a year-round requirement that will be phased in over a two-year period. 15 percent of the minimum 2.0 percent oxygen content of reformulated gasoline is required in the form of renewable oxygenates from December 1, 1994 through December 31, 1995. After January 1, 1996, 30 percent of the minimum oxygen content in reformulated gasoline must be met by renewable oxygenates. The renewable oxygenate requirement must be met on an annual average basis. The final rule allows generation and trading of renewable oxygen credits in order to allow refiners and importers maximum flexibility.

In the proposed rule, EPA had proposed to require that renewable oxygenates be used to meet 30 percent of the 2.0 weight percent oxygen requirement for the RFG program. At the time of the proposal, EPA was concerned whether adequate supplies of renewable oxygenate would be available and whether the distribution infrastructure was sufficient during the initial years of the program without disrupting existing markets or incurring excessive costs. EPA specifically requested comments on the issue of the appropriate level of the renewable oxygenate requirement, the potential need for a phase-in period, and any other supply-related issues of concern to commenters. EPA received several responses, including information about current and projected supply of renewable oxygenates and information regarding the logistics of renewable oxygenate distribution, in response to the proposed rule.

EPA has conducted a detailed analysis to determine whether sufficient renewable oxygenate supply, distribution, tankage, and blending capacity would be available in 1995 and 1996 to meet the program requirements and this analysis is contained in the Regulatory Impact Analysis to the final rule. As a result of its own analysis, and after careful consideration of all comments received, EPA determined that it is feasible for sufficient feedstocks, production capacity, transportation capacity, and blending capacity to be available to meet the full 30 percent requirement for 1996. Prior to 1996, EPA's final rule requires that renewable oxygenates be used to meet 15 percent of the 2.0 weight percent oxygen content requirement under the RFG program. The 15 percent phase-in is necessary because it addresses lead time

concerns, ensures a more orderly start up of the program and will minimize the risk of any price spikes or market disruptions.

EPA does not anticipate any cost increase over and above the cost of the RFG program to consumers as a result of the renewable oxygenate program.

QUESTION 2:

It is my understanding that because of this mandate, demand for ethanol will increase in the Northeast, West, and South. In order to meet demand, ethanol supplies in the Midwest will be shifted to those new areas creating a strain on midwestern supplies. Have you studied the effects of regional shifts in supply of ethanol on the consumer? Can you assure me that regional shortages and price spikes, principally in the Midwest, will not occur?

ANSWER 2:

EPA has considered data on current and expected ethanol operating production capacity from several commenters including the U.S. Department of Energy, the U.S. Department of Agriculture, and industry sources. A review of the data indicates that current and expected ethanol production exists will be sufficient to meet the needs of the renewable oxygenate regulation. Additional capacity is expected to come on line for the remainder of 1994, 1995, and 1996.

In developing the rule, EPA wanted to minimize to the greatest extent possible the diversion of ethanol from existing markets to meet the needs of the renewable oxygenate program and recognized that shifts in supply might have adverse effects on consumers. EPA believes that sufficient renewable oxygenate production capacity will be available to meet the 15 percent renewable oxygenate requirement for 1995 without any real need for shift of supply from existing markets.

Adequate capacity to supply a 30% renewable oxygenate requirement without a supply shift is expected to exist by 1996. As discussed in the answer to previous question, the renewable oxygenate requirement will be phased in at the 15 percent level in 1995, with the 30 percent requirement taking effect after January 1, 1996. This phase-in will allow necessary time to build capacity and will minimize any disruptions.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 14 1994

OFFICE OF CONGRESSIONAL
AND LEGISLATIVE AFFAIRS

The Honorable John D. Dingell
Chairman
Subcommittee on Oversight and Investigations
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Enclosed, for insertion into the hearing record, are EPA's responses to additional follow-up questions from the June 22, 1994 hearing before the Subcommittee on Oversight and Investigations on EPA's implementation of the Clean Air Act Amendments of 1990. I hope this information will be useful to you and members of the Subcommittee.

If you or your staff have any questions regarding this information, please contact Mary Nichols, Assistant Administrator, Office of Air and Radiation at (202) 260-7400.

Sincerely,

A handwritten signature in cursive script that reads "Christopher P. Hoff".

Christopher P. Hoff
Deputy Director
Legislative Analysis Division

Enclosure

EPA'S RESPONSES TO ADDITIONAL QUESTIONS FROM
CHAIRMAN JOHN D. DINGELL
PURSUANT TO CLEAN AIR ACT OVERSIGHT
HEARING OF JUNE 22, 1994

QUESTION 1: I understand that the EPA has established yet another committee to once again examine the SIP process. Please identify the committee and its participants, the matters it is considering, and explain its purpose and status. Please provide a copy of the reports of prior EPA committees or task forces that addressed SIP problems and explain what action was taken regarding their recommendations.

RESPONSE: In the past few years, the U.S. Environmental Protection Agency (EPA) has delegated many of the state implementation plan (SIP) processing responsibilities to the Regional Offices. The most important delegation is the decision-making and signature on SIP actions which has been delegated to the Regional Administrator. On February 1993, a work group was formed to revise the delegation authority for certain approval/disapproval categories of SIP's (see enclosed October 4, 1993 memorandum titled, "Changes to State Implementation Plan (SIP) Tables"). The changes suggested by the work group were effective on October 4, 1993. The new delegation provided the first steps toward maximum flexibility maintaining legal sufficiency.

In an effort to continue to streamline SIP processing procedures to meet our requirements for promulgation, EPA expanded the charge of the work group to other areas of SIP processing where improvements can be implemented. The group will provide recommendations to simplify SIP review, content, and documentation procedures to make SIP's more useful for internal, public and state customers. Some of the changes are to maximize regional authority, while

assuring clear accountability and adequate national consistency. A report from the group will be completed by January 1995. Once the report is completed, a copy will be provided. Although we are working to finalize our report, it is important to emphasize that the implementation of SIP improvement recommendations is an ongoing activity in partnership with the Regional Offices.

QUESTION 1 (Cont'd.): Also, in the case of the Tennessee redesignation, please explain the delay.

RESPONSE: Tennessee requested the redesignation of Shelby County (Memphis) on October 30, 1992. On May 19, 1993, EPA determined that the State's submittal was complete under the general completeness criteria of 40 CFR part 51, appendix V, sections 2.1 and 2.2. Section 107(d)(3)(D) requires EPA to approve or deny any redesignation request within 18 months of receipt of a complete State redesignation submittal. The EPA published a direct final approval of Tennessee's request on July 26, 1994 (59 FR 37939); no adverse comments were received. This redesignation was effective August 31, 1994. Thus, EPA approved the request within the timeframe established by Congress.

QUESTION 1 (Cont'd.): Please identify by state, all other redesignation requests pending at EPA as of July 31, 1994, including the date of each request and its status.

RESPONSE: As you requested, below is a table of pending redesignation requests for ozone and CO. The table shows progress made by the EPA Regional Offices in

acting on redesignation requests. Please note that review and processing of these requests have been delegated to the Regional Offices according to regional priorities. The table includes several requests that have been approved as "direct final" (59 FR 24054, May 10, 1994), which means each action is published both as a proposal and a final in the Federal Register on the same day. This allows the Agency to proceed with a direct final action if no adverse comments are received. If EPA receives adverse comments, each final action will be withdrawn and comments will be addressed in a subsequent notice. For some of these direct final actions, we are waiting for approval to become effective at the state level (generally 30 to 60 days after publication of final approval). For other direct final actions, we are either waiting for the comment period to end, or we have received adverse comments that we must address. Therefore, we consider these direct final actions "pending" until the comment process is complete and the approval becomes state effective.

QUESTION 1 (Cont'd.): I also asked about related SIP matters in my letter of April 5, 1994. A reply is long overdue. I request that reply by August 31, 1994.

RESPONSE: Our reply was sent on August 30, 1994.

Table 1. Pending Ozone Redesignation Requests

RO	St	Area	Date of Request	Status
III	W V	Parkersburg	11/92	Proposed approval 6/10/94 (59 FR 29977); Final approval 9/6/94 (59 FR 45978)
III	W V	Charleston	11/92	Proposed approval 6/13/94 (59 FR 30326); Final approval 9/6/94 (59 FR 45985)
III	PA	Pittsburgh	11/93	Under review at Regional Office
III	PA	Reading	11/93	Under review at Regional Office
III	W V	Huntington, WV/ Ashland, KY	11/92	Direct final approval published 9/6/94 (59 FR 45980)
IV	TN	Memphis	11/92	Direct final 8/4/94 (59 FR 39692); Region addressing comments
IV	KY	Huntington, WV/ Ashland, KY	11/93	Under Headquarters review
IV	KY	Edmonson Co.	11/92	Submittal found complete 5/93; Headquarters review complete; direct final approval in signature chain at Region
IV	KY	Lexington	11/92	Submittal found complete 5/93; Headquarters review complete; KY addressing EPA comments

RO	St	Area	Date of Request	Status
IV	KY	Owensboro	11/92	Submittal found complete 5/93; Headquarters review complete; direct final approval being revised for Fed.Reg. publication
IV	KY	Paducah	11/92	Submittal found complete 5/93; Headquarters review complete; KY addressing EPA comments
IV	FL	Jacksonville	6/93	Headquarters review complete; direct final approval being revised for Fed.Reg. publication
IV	FL	Miami	11/93	Under Headquarters review
IV	NC	Charlotte	11/93	State addressing EPA comments
V	IN	Indianapolis	11/93	Direct final 7/8/94 (59 FR 35044); Regions addressing comments
V	IN	Evansville	11/93	Direct final 7/8/94 (59 FR 35044); withholding final action (monitoring data being quality assured)
V	IN	South Bend/Elkhart	9/93	Direct final 7/8/94 (59 FR 35044); Regions addressing comments
V	IL	Jersey County	2/93	Headquarters review complete; Regional Office preparing proposed approval for FR publication
V	OH	Dayton	11/93	Under review at Regional Office
V	OH	Toledo	9/93	Under review at Regional Office

RO	St	Area	Date of Request	Status
V	OH	Columbus	1/94	Under review at Regional Office
V	OH	Canton	5/94	Under review at Regional Office
V	OH	Preble	4/94	Headquarters review complete; Regional Office revising direct final approval package for publication in Federal Register
V	OH	Jefferson	4/94	Headquarters review complete; Regional Office revising direct final approval package for publication in Federal Register
V	OH	Columbiana	4/94	Headquarters review complete; Regional Office revising direct final approval package for publication in Federal Register
V	OH	Youngstown	8/94	Under review at Regional Office
V	MI	Grand Rapids	11/93	Incompleteness letter 5/11/94
V	MI	Muskegon	11/93	Incompleteness letter 5/11/94
V	MI	Kewaunee	11/93	Incompleteness letter 6/6/94
V	MI	Detroit/Ann Arbor	11/93	Proposed 7/21/94 (59 FR 37190); Regional Office addressing public comments
VI	LA	New Orleans	9/94	Under review at Regional Office
VI	TX	Victoria	7/94	Under review at Regional Office
VIII	UT	Salt Lake City	11/93	Under review at Regional Office

RO	St	Area	Date of Request	Status
IX	CA	San Francisco	11/93	Headquarters review complete; proposed approval in signature chain at Regional Office

Table 2. Pending Carbon Monoxide Redesignation Requests

RO	St	Area	Date of Request	Status
II	NJ	Camden Co. (Phila.)	11/93	Submittal incomplete
II	NJ	Nine Not Classified Areas	11/93	Submittal incomplete
III	PA	Philadelphia	11/93	Under review at Regional Office
III	PA	Nine Not Classified Areas	11/93	Under review at Regional Office
IV	NC	Charlotte	8/91	Office Found complete 11/91; under approvability review at Region; being revised based on discussions with the State
IV	NC	Winston-Salem (Forsyth Co.)	4/94	Headquarters review complete; direct final approval being prepared for Fed.Reg. publication
IV	TN	Memphis	11/92	Direct final approval 7/26/94 (59 FR 37939)
V	WI	Oshkosh	4/94	Direct final approval 8/17/94 (59 FR 42168)

QUESTION 2: I understand that the EPA is contemplating providing flexibility to the states in the filing of complete attainment demonstrations by granting conditional approvals if the states meet 80 percent of federal requirements. Reportedly, the EPA is considering a regional plan option. Supposedly, states are having airshed modeling and inventory problems resulting in incomplete demonstrations. I question whether EPA has such flexibility under the Act, and request an explanation of these proposals and purported problems. It should include a discussion of the legal basis for such actions, taking into consideration the court's recent holding regarding committal SIPs. Please explain how the EPA plans to provide such flexibility and whether it would be granted generally or on a case-by-case basis.

RESPONSE: The EPA issued guidance to states on September 1, 1994 concerning the November 1994 ozone SIP submittals. This guidance is included in a memorandum titled, "November 1994 submittal Policy." A copy of this memorandum is enclosed. Under this guidance, if no submittal is made, EPA will make a finding of failure to submit. Any submittal that is made will be determined to be either incomplete or complete. A finding of completeness means that a submittal may be eligible to be considered for full or conditional approval. It does not mean that the submittal is necessarily approvable. A finding of incompleteness starts an 18-month sanctions clock that can only be stopped by EPA's finding that the state has made a complete submittal.

In order for any submittal to be complete, it must include: (a) modeling for all selected episodes that meet EPA requirements; (b) a demonstration of how the area will achieve the post-1996 rate-of-progress reductions and adopted rules for a specified amount of those reductions; and (c) an attainment demonstration with adopted rules for a specified amount of the reductions needed for attainment.

For the rate-of-progress requirement, states must submit rules for at least 80

percent of the necessary reductions, except serious areas which are required to submit rules for all of the reductions. States must also submit rules for at least 80 percent of the reductions needed for attainment. If a state submits a plan that does not contain all of the reductions needed for attainment and rate-of-progress, it must submit a justification of why additional time is needed for the remaining rules and a commitment to adopt the remaining rules. Where a regional strategy is being used, a state may submit a plan including 80 percent of the reductions needed in the modeling domain to implement that regional strategy.

Plans that pass the completeness criteria would be eligible for consideration for either full or conditional approval (if the plan includes commitments).

The EPA intends to rely on section 110(k)(4) of the Act, as amended, for authority to conditionally approve SIP's involving commitments to submit additional rules at a future date. This provision grants EPA broad authority for conditional approval. Recently, the Court of Appeals for the D.C. Circuit invalidated certain conditional approvals by EPA when the States provided commitments to submit the entire set of required rules at a specified time in the future. In NRDC v. EPA, 22 F. 3d 1125 (D.C Cir. 1994), the Court interpreted section 110(k)(4) to authorize approval of "substantive, but not entirely satisfactory" SIP submittals. The Court went on to hold that even though EPA was not justified in conditionally approving those SIP submittals, it was proper to extend the statutory time frame for state submission of two of those submittals (enhanced I/M and NO_x RACT) because factors beyond the states' control caused the delays.

10

The EPA believes that section 110(k)(4) as well as the principles of the case referenced above justify its completeness and conditional approval policies for the November 1994 ozone nonattainment submittals. The SIP submittals that provide for a modeling demonstration, a high percentage of the required reductions, and an explanation for relying on commitments for the remainder of the reductions constitute a "substantive" submittal worthy of at least consideration for conditional approval. In addition, the types of state explanations, described above, needed to justify the gap in controls, as well as the delay in submissions, render this policy consistent with the Court's approval of SIP submittal date extensions.

QUESTION 3: Please explain why the EPA decided that at this critical time, new rulemaking is sound in the absence of a settlement binding the litigants or a resolution by the court of the lawsuit. Please explain why the EPA is maintaining confidentiality regarding discussions with the litigants. What is the nature of these documents?

Please provide the legal basis for this proposal, recognizing that under the Administrative Procedures Act a proposed rule has no effect and could even be abandoned and repropose.

Additionally, I request that the EPA explain why it has not also revisited the Bush Administration decision, based on its interpretation of the Clean Air Act, to limit the application of the permit program to major sources. During the earlier rulemaking, I criticized that decision because I believed then and now that the interpretation is contrary to the law. Is this an issue in the lawsuit? The Bush Administration indicated that renewal of that decision would be examined prior to the end of five years. Will this be part of this rulemaking? If not, why not?

RESPONSE: Question 3 concerns several aspects of EPA's recent efforts to revise the regulations implementing title V of the Act as amended in 1990. First, you question EPA's decision to propose revisions to several parts of the rule that are the subject of litigation, even though settlement on the relevant issues has not been reached and a court has not yet ruled. It is true that the petitioners did not reach consensus on the specifics of a rule revision. In view of the very different interests and perspectives of the various state, environmental group, and industry petitioners, it is not surprising that no final agreement among all the parties was reached. Prospects for a settlement would have been greater if EPA had chosen to settle any given issue just with the party or parties raising it, but EPA instead chose a more inclusive negotiation process that allowed all parties to participate in the discussion of a single petitioner's issue. As a result of this process, a surprising degree of consensus was achieved, but full consensus was not, at least

in part because of a lack of information on the potential effect of different competing approaches. The proposed revisions embody a framework containing several options whose proposal was agreed to by all petitioners. The EPA and the petitioners agreed that the proposal would provide an appropriate opportunity for vetting the remaining areas of disagreement and obtaining additional information and input relevant to choosing between competing options.

You also expressed concern with the fact that EPA is maintaining the confidentiality of discussions with the litigants and documents exchanged among them in the context of settlement negotiations. It is commonplace that the contents of settlement discussions and documents are held confidential, even after settlement is reached, unless all participants agree to release them. Confidentiality agreements allow the participants in settlement negotiations to engage in more candid and broad-ranging discussions than might otherwise be advisable if the discussions were to be made public. In any event, the outcome of the settlement discussions in this case has been made public, first by release in March of this year of a document describing EPA's plans for proposed rule revisions, and later, by issuance of a Federal Register notice proposing specific revisions. That proposal contains explanations for the various suggested revisions, and as a legal matter must stand on its own merits. The EPA believes that release of prior settlement documents would add nothing substantive to the explanation provided in the Federal Register notice.

13

You were further concerned that the recent proposal would confuse states that were relying on the current 1992 rule to develop and submit their permit programs to EPA for approval. The preamble to the proposed revisions indicates that states continue to be subject to the statutory and regulatory requirement to submit title V programs to EPA for approval by a specified date. The preamble also indicates that the sufficiency of a state's submittal will be judged against the current rule until any revisions to the rule are promulgated. What the preamble explores is the option of allowing states to choose which version of the rule to be judged by--the original rule or any revision of the rule--if they submit their programs for EPA approval within a specified period of time after any revisions of the rule are promulgated. This would give states that designed their programs to conform to the then current rule the opportunity to be judged against that rule instead of the revised rule. In any event, any state whose program received approval under the original rule would have 1 to 2 years to revise its program as needed to conform to the revised rule, and submit those revisions to EPA for review.

Finally, you inquired why EPA has yet to revisit its decision to limit the initial applicability of the part 70 program to only major sources. This issue, like some others, is also the subject of current litigation, but is not covered by the August 29, 1994 proposal. EPA plans to address this issue and possibly several others in a second proposal to revise the permits rule that EPA plans to issue next year.

QUESTION 4: I also request a copy of all requests for reprogramming in FY 1994, showing the increases and decreases for the various activities and the impact on each program.

Did the May 5 reprogramming of \$16.6 million for Abatement, Control, and Compliance come from climate activities? I understand that you plan early in FY 1995 to reprogram FY 1995 funds in order to restore this sum to the climate activity. I request that you explain this strategy and its impact on Global Climate and Clean Air Act priorities, as well as the need for such a reprogramming. What funds will be raided in FY 1995 to restore funding for the global climate activity?

Will reprogramming and other actions ensure that the EPA will meet all air toxic deadlines for 1997? Your letter indicates compliance with "near-term court-ordered deadlines." What are those deadlines? What about the statutory deadlines?

RESPONSE: Please see Attachment to Question 4 for copies of EPA's reprogramming letters sent to the House Appropriations Committee on FY 1994.

In developing EPA's operating plan for FY 1994, the Agency proposed to reprogram \$24.4 million to the Climate Change Action Plan (CCAP). The Appropriations Committees did not accept \$16.6 million of the reprogramming. The Committees allowed the Agency to target the money to other activities, subject to approval by the Committees. The Agency decided to keep the funds within the Office of Air and Radiation (\$15.0 million) and the Office of Policy, Planning, and Evaluation (\$1.6 million) and "forward fund" FY 1995 projects, that is, fund projects included in the FY 1995 budget request. The FY 1995 funds freed up from funding FY 1995 activities in FY 1994 would then be applied to CCAP activities in FY 1995. The Administration sent an FY 1995 budget amendment to the Appropriations Committees to make the FY 1995 President's

request consistent with the forward funding actions.

We intend to make every effort to meet Clean Air Act deadlines and avoid having our priorities set by the courts. A list of our "near-term court-ordered deadlines" is attached. Because of the limits on FY 1994 resources and the prospect of tight budgets for future years, we have begun exploring ways of meeting the requirements of the Clean Air Act and other environmental statutes more efficiently. As an example, we are investigating ways to involve states and industry in setting Maximum Achievable Control Technology (MACT) standards that will identify critical issues and available data early in the standards-setting process and reduce the resources required for each standard.

The resources that we devote to implementing the Climate Change Action Plan bring direct clean air benefits. Our voluntary energy efficiency and methane programs reduce emissions of "criteria" pollutants (e.g., sulfur dioxide [SO₂], nitrogen oxides [NO_x], and volatile organic compounds [VOCs]) and air toxics (e.g., heavy metals, such as beryllium, cadmium, copper, chromium, manganese, mercury, nickel and silver), as well as greenhouse gases. The criteria pollutants reduced by specific actions are shown in the chart below. These reductions will help states meet their Clean Air Act implementation plan obligations as well as their toxic air pollution control objectives.

Action Number	NO _x	SO ₂	VOCs
#1 Energy Star Buildings	*	*	
#2 Green Lights	*	*	
#30 Energy Star Transformers	*	*	
#32 Natural Gas STAR	*		
#33 Landfill Rules		*	*
#34 Landfill Outreach Program		*	*
#38 AgSTAR Program		*	

The reductions of criteria pollutants will be sizable. Every ton of carbon dioxide prevented through energy efficiency activities under the CCAP also prevents release of 15 pounds of SO₂ and seven pounds of NO_x.

The landfill actions are also prime examples of actions that have tremendous benefit for both climate change and air pollution. The landfill actions in addition to providing over 40 mmtce reductions of greenhouse gases for the Action Plan are expected to reduce national VOC emissions by over 100,000 tons.

Our energy efficiency programs also reduce other forms of pollution associated with electricity generation: boiler ash, scrubber waste, acidic drainage, coal mining waste, radioactive waste, and natural gas leakage.

Due to the pollution prevention potential of these activities, we are currently working to introduce these programs into the SIP process. The driving forces for this new effort are:

- SIPs are falling short in providing the necessary reductions for meeting ambient air quality standards;
- SIPs are requiring costly end-of-pipe controls and the outlook is for even more costly actions; and
- the voluntary initiatives under the Action Plan offer sizable "profitable" reductions in criteria pollutants that can be realized when key barriers are overcome.

QUESTION 5: The July 29, 1994 edition of Inside EPA reports that a conflict is brewing between the Science Advisory Board and the EPA program offices about national ambient air quality standards. That troubles me, and I request an explanation from you and the Board, together with the Board's letter on revising the sulfur dioxide standard. Also, what is the status of the EPA review of each of the national ambient air quality standards as required by any court agreement and the statute? In each case, please provide an updated timetable for such review and decision.

RESPONSE: Staff members from the Science Advisory Board and the air program office have been conducting discussions among themselves and with the Chair of the Clean Air Scientific Advisory Committee (CASAC) on how CASAC can most effectively implement its mandate to provide independent advice and recommendations on issues involving national ambient air quality standards (NAAQS). These discussions have included the following issues:

1) The utility of the CASAC's carefully distinguishing between: a) technical information on health issues that the Administrator may consider when determining whether new or revised NAAQS are appropriate, and b) broader issues referenced in the CASAC charter;

2) The completeness and clarity of the record leading to the CASAC's "closure" letter; and

3) The efficient generation of clear and accurate closure letters following public meetings.

The discussions to date have been productive and should enhance the working relationship between CASAC and the Agency.

Attached is a copy of the CASAC closure letter on sulfur dioxide (see

Attachment to Question 5).

The status of the NAAQS reviews is provided below:

- 1) Carbon Monoxide: Final decision announced August 1, 1994;
- 2) Lead: Focus is on bringing sources into attainment with the existing standards;
- 3) Nitrogen Dioxide: Work in progress - court-ordered schedule, proposal February 15, 1995, final action March 31, 1996;
- 4) Particulate Matter: Work in progress - schedule at issue in pending litigation;
- 5) Ozone: Work in progress, proposal mid-1996, final action mid-1997;
- 6) Sulfur Dioxide: Work in progress, court-ordered schedule - either (1) final action on primary standard portion of 1988 proposal, or (2) reproposal by November 1, 1994; if reproposal, final action by 12 months after close of comment period.

COURT-ORDERED DEADLINES

August - March 1995

TITLE	DATE DUE
NO _x NSPS for boilers	8/30/94
NSPS for starch manufacturers	8/31/94
NSPS for cold cleaning operations	8/31/94
NSPS for SOCM1 wastewater	8/31/94
Standards for large MWC's	9/01/94
Standards for small MCW's	9/01/94
Approve or disapprove inspection/maintenance SIPs	9/30/94
Marine vessel engine	9/30/94
Enhanced monitoring rules	9/30/94
Aircraft engine test cell - NO _x Study & Report	9/30/94
Certification program for solid waste and fossil	9/30/94
Develop inspection/training materials for dry cleaners	9/30/94
MACT for off-sight waste	10/01/94
Gasoline detergents	10/15/94
List of Global Warming Potentials	10/30/94
SO ₂ NAAQS review	11/01/94
MACT for degreasing organic solvent cleaners	11/15/94
Hazardous waste TSDF rule - Phase II	11/15/94
MACT for wood furniture	11/21/94
MACT for commercial sterilizers	11/23/94
MACT for chromium electroplating	11/30/94
MACT for magnetic tape	11/23/94
MACT stage I gasoline marketing	11/23/94
Asbestos MACT	1/15/95
MACT for shipbuilding	1/15/95
Medical waste incinerator rule	2/01/95
NO _x NAAQS review	2/15/94
FIP to achieve NAAQS for ozone: Sacramento, CA	2/14/95
FIP to achieve NAAQS for ozone: Ventura, CA	2/14/95
FIP to achieve NAAQS for ozone: Los Angeles area	2/22/95
MACT for printing/publishing industry	3/01/95
MACT for polymers and resins IV	3/01/95

ONE HUNDRED THIRD CONGRESS

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REGIS F. STUNTZ, STAFF DIRECTOR/CHIEF COUNSEL

FILE COPY ROOM 3323
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 PHONE (202) 225-4841

DO NOT REMOVE

U.S. House of Representatives
 Subcommittee on Oversight and Investigations
 of the
 Committee on Energy and Commerce
 Washington, DC 20515-6116

June 17, 1994

Mr. Charles J. DiBona
 Chief Executive Officer
 American Petroleum Institute
 1220 L Street, N.W.
 Washington, D.C. 20005

Mr. Urvan R. Sternfels
 President
 National Petroleum Refiners Association
 1899 L Street, N.W., Suite 1000
 Washington, D.C. 20036

Dear Messrs. DiBona and Sternfels:

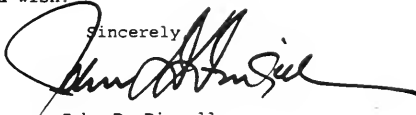
Enclosed is the Subcommittee on Oversight and Investigations' letter to several agencies concerning a hearing on June 22, 1994 regarding implementation of the Clean Air Act Amendments of 1990. The Subcommittee will concentrate on issues of implementation of the reformulated gasoline (RFG) and anti-dumping requirements of the Act, the related rule, and related issues.

The Subcommittee is particularly interested in ensuring full compliance with the law, including assurance that the January 1, 1995 deadline will be met by all concerned without any national or regional supply disruptions or price spikes, taking into account experiences last year nationally and in California regarding diesel fuel. The Subcommittee continues to be concerned that significant problems could hinder reaching that objective. The Subcommittee wants to know what problems, actual or perceived, are occurring in meeting this deadline and seeks to learn what is being done or not being done by your industry and others to solve them now. We want to be satisfied that the regulated industry and the government are identifying and anticipating problems and addressing them. Thus, I would appreciate, for the hearing record, the comments of your member firms and organizations concerning this objective. Please provide a copy thereof to the Environmental Protection Agency and the Department of Energy so that they are equally familiar with your concerns.

Mr. Charles J. DiBona
Mr. Urvan R. Sternfels
Page 2

With every good wish.

Sincerely

A handwritten signature in black ink, appearing to read "John D. Dingell", written in a cursive style.

John D. Dingell
Chairman
Subcommittee on Oversight and
and Investigations

Enclosure

cc: The Honorable Dan Schaefer, Ranking Republican Member
Subcommittee on Oversight and Investigations



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 AUGUST 15 1994
 OVERSIGHT AND INVESTIGATION

 Michael J. Couch
 Vice President

 To
 RS
 Finn
 DBF

The Honorable John D. Dingell, Chairman
 U.S. House of Representatives
 Subcommittee on Oversight and Investigation
 of the
 Committee on Energy and Commerce
 Room 2323
 Rayburn House Office Building
 Washington, DC 20515-6116

Dear Representative Dingell:

Your subcommittee has requested that we respond to anticipated RFG implementation problems and our efforts to resolve them. We are pleased to provide our experience and future plans and hope that we can contribute towards resolving problems with future legislation and regulations.

Fina Oil and Chemical Company is an integrated oil company with large chemical operations and is headquartered in Dallas. We have two refineries and several plastics and chemical plants. We primarily market gasoline and fuel products in the South, Southwest, and Midwest; however, we also have provided a significant volume of gasoline in the Northeast through our Trading Services Division. Excluding any problems with the new EPA regulations, we would like to continue supplying commodity gasoline to the driving public at the lowest possible cost.

Unfortunately, the new EPA regulations on RFG and ROS (ethanol mandate) will prohibit us from supplying gasoline into certain areas which will most likely develop a shortage, primarily the Northeast U.S. In theory, the Clean Air Act Amendments established 1990 as the base year. Thus, gasoline supply should be equivalent to 1990 volumes and quality except where mandated otherwise. After the U.S. EPA finalized the regulations, we are unable to continue operations to provide the volumes of gasoline we delivered in 1990.

Even though we blended significant volumes of gasoline from both domestic and imported blendstocks to provide gasoline for the Northeast in 1990, the final EPA regulations prohibit us from using the 1990 quantity as a baseline. This creates artificial economics as we would be competing with others who use their actual baseline. To supplement this loss, we would consider importing finished gasoline from our affiliated refinery in Belgium, however, since we were not importing finished gasoline (only blendstocks) in 1990, we must import only statutory baseline gasoline. This puts us at economic disadvantage as others can use their own baseline.

FINA, Inc.

P.O. Box 2159 • Dallas, Texas 75221 • (214) 750-2893 • FAX (214) 750-2570

The Honorable John D. Dingell
August 15, 1994
Page 2

The U.S. EPA seems to believe that anyone with a 1990 baseline volume of gasoline can continue to supply product in the future. This is definitely not the case. Preliminary supply studies, such as the one by Bonner & Moore Associates, show a shortage of RFG in the Northeast. We would . under normal unconstrained economic conditions, provide the gasoline from our Gulf Coast Refinery; however, again the EPA outright manipulation of market forces may prohibit us from supplying this need. The ROS (ethanol mandate) requires that we supply RFG oxygenates based on 15% ethanol in 1995 and 30% ethanol in 1996 +years. As ethanol supply is primarily in the Midwest and ETBE facilities are elsewhere, the logistics of handling ethanol and ETBE will be extremely difficult and expensive. Even though oxygenate credits for ethanol can, theoretically, be purchased, this does not eliminate any of the logistic problems. Also, credits will be available in specific regions only.

In summary, Fina Oil and Chemical Company would like to continue supplying low cost gasoline to the American driving public; however, the new U.S. EPA regulations make it extremely difficult, expensive, and even impossible in certain areas. We hope the U.S. Congress can help resolve the problems before shortages of gasoline develop, prices escalate, and actual performance goes down (lower mileage). As in the past, the oil industry reputation will suffer even though we have very little control of the situation.

Best regards,



Michael J. Couch
Vice President

MJC/awm

American Petroleum Institute
1220 L Street, Northwest
Washington, D.C. 20005
(202) 682-8100



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SUBCOMMITTEE ON
OVERSIGHT AND INVESTIGATIONS

Charles J. DiBona
President

August 2, 1994

The Honorable John Dingell
Chairman
Subcommittee on Oversight
and Investigations
Committee on Energy and Commerce
Rayburn House Office Building, Room 2323
Washington, DC 20505-6116

To
RS
Finn
DBF

Dear Mr. Dingell:

At your ~~meeting~~ on implementation of the reformulated gasoline (RFG) rule, both EPA Assistant Administrator Mary Nichols and DOE Assistant Secretary Susan Tierney stated that the petroleum industry has been aware of the major elements of the RFG program since 1991 when the reg-neg agreement was signed. Both witnesses implied that only minor issues needed to be resolved with the industry. However, this is not the case and API believes the record must be set straight.

API is surprised that both EPA and DOE would minimize the significance of the outstanding issues. First, EPA just recently issued a final rule mandating refiners to use "renewable oxygenates" in RFG. The 1991 reg-neg agreement, like the 1990 Clean Air Act Amendments, was expressly fuel-neutral. Between then and last December, when EPA proposed the renewable oxygenate rule, companies were planning and investing on the basis of the 1991 agreement. Until now, the industry did not know with certainty which combination of oxygenates could be used to meet the RFG oxygen requirement.

Even with this rule, the industry is faced with the daunting task of complying with this mandate with less than three months before some RFG shipments will begin. For example, the logistical problems supplying California with the required volumes of ethanol/ETBE could be particularly difficult. Indeed, EPA, in the renewable oxygenate final rule, expressed concern about the availability of sufficient tankage for renewable oxygenates. Given the serious implications of EPA's belated renewable oxygenate rule, API and NPRA filed with the D.C. Circuit a petition for judicial review on July 13 and on July 21 separate motions for a court stay and summary reversal.

The Honorable John Dingell

August 2, 1994

Page 2

Second, the recent EPA proposal to allow foreign refiners to establish their own baselines also poses problems for the industry. The final rule on this issue is not expected until the end of August. Such a late change in the treatment of imports would make it more difficult for U.S. refiners to forecast demand for domestic RFG, and will hamper the smooth implementation of the RFG program.

Finally, the industry has only recently received critical guidance on a number of other issues related to implementing the RFG program. EPA just released a Direct Final Rulemaking (DFRM) that corrects many mistakes and inconsistencies in the final RFG rule. The industry had requested that this DFRM be issued by the end of April to assist refiners in assembling their baselines, which were due June 1. The release of the DFRM after baselines were submitted means that refiners may have incomplete submissions or may have to revise their baseline submissions, complicating EPA's ability to approve the baselines quickly. The industry must have its baseline submissions approved by September 1 in order for refiners to know their target levels for fuel parameters for both RFG and conventional gasoline.

Even the DFRM provides no certainty at this time because any issue in the DFRM can be objected to through written comments, in which case the issue in question will be withdrawn from the final rule. Industry will not know which issues in the DFRM are finalized and which are rejected until September 19 at the earliest.

EPA has also just released a "Question and Answer" (Q/A) document that provides some of the needed clarification on how EPA interprets the final RFG rule. Because of the rule's complexity, this Q/A document is nearly 200 pages long. Yet even with the release of the Q/A document, areas of uncertainty still remain in the RFG rule. For example, EPA has been reevaluating its approach to test tolerances, despite clear language both in the statute and in the preamble to the final RFG rule. The industry needs EPA to reaffirm its commitment to the application of appropriate test tolerances. EPA must also act promptly to begin the round-robin testing program needed to develop the benzene test tolerance and revise, as necessary, the interim tolerance provided in the preamble.

In closing, the industry remains committed to the timely implementation of the RFG rule. We appreciate EPA's diligence in working with industry to implement the RFG program; it is in everyone's interest that the RFG program be implemented as smoothly as possible. However, the basic RFG program, as described in the reg-neg agreement, was only seven pages long. In contrast, the final RFG rule and accompanying documentation is over 1000 pages long and extremely complex and provided contradictory or unclear guidance on many issues. In addition, the Administration reopened significant portions of the RFG rule, such as the renewable oxygenate program and foreign refiner baselines, further adding to industry uncertainty.

The Honorable John Dingell
August 2, 1994
Page 3

EPA has recognized the need to correct and clarify the final rule, and we have worked closely with EPA to achieve the needed guidance. However, the Administration's position that only minor issues needed to be resolved in the RFG rule is totally inaccurate.

We appreciate this opportunity to clarify the record. Please call me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles B. Bums". The signature is written in a cursive, flowing style with a large initial "C".

cc: Honorable Carol Browner
Honorable Hazel O'Leary

Unocal Petroleum Products & Chemicals Division
 Unocal Corporation
 1201 West 5th Street PO Box 7600
 Los Angeles California 90051
 Telephone (213) 977-5974
 Facsimile (213) 977-5835

RS
 Finn



Dennis W. Lamb
 Manager, Fuels Planning
 Planning and Services

July 11, 1994

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 SUBCOMMITTEE ON
 OVERSIGHT AND INVESTIGATIONS

The Honorable John D. Dingell, Chairman
 Subcommittee on Oversight and Investigations
 Committee on Energy and Commerce
 U.S. House of Representatives
 Washington, D.C. 20515-6116

Dear Mr. Dingell:

Unocal is pleased to update you on our progress in implementing EPA's reformulated gasoline (RFG) rule and ask that our comments be included in the record of your subcommittee's June 22, 1994 hearing. Less than four months before our projected initial RFG shipment date of October 20, we are concerned that, despite our best efforts to implement EPA's regulation, several unresolved issues remain which could potentially affect our smooth transition to RFG production.

The most important obstacle we face in meeting RFG deadlines is the timely procurement of necessary permits. The Environmental Impact Report (EIR) for our Los Angeles Refinery's reformulated gasoline construction project was filed in a timely manner and was approved by the South Coast Air Management District (SCAQMD) with sufficient lead time for us to complete the work. However, it is unclear whether we will complete the project as originally envisioned. On November 23, 1993, a writ of mandate was filed by a private plaintiff in Los Angeles Superior Court contesting the SCAQMD's certification of the EIR based on alleged California Environmental Quality Act (CEQA) problems. Although we expect a favorable ruling, any other action by the court would require us to modify the EIR and reissue it for public comment. This could potentially stop the project.

We have also had to respond to a rather unexpected challenge from the Environmental Protection Agency which brought legal action against us for allegedly proceeding with project construction before securing the necessary permits. The issue involves essential preparatory activities leading up to, and including, foundation work which is allowed under the SCAQMD's interpretation of the pertinent regulations and statutes. SCAQMD

is the lead regulatory agency for reformulated gasoline projects in Southern California. By definition, the work in question does not involve any emissions increases. In other words, we have been challenged by EPA for expediting project implementation to ensure on-time compliance with the agency's reformulated gasoline rule! On March 24, 1994 the Ninth Circuit Court of Appeals granted Unocal's motion to dismiss the court matter of stopping Unocal's pre-construction activities. EPA is considering appeal of the ruling and has referred the case to the Department of Justice which we expect will file a civil complaint against Unocal.

In addition to the permitting issues outlined above, we are still awaiting EPA's response on several important reformulated gasoline implementation questions, including baseline submissions which were due on June 1. Because of Unocal's refinery configurations, the baseline issues affecting operations are particularly complex and were not comprehended in EPA's final rule. As a result, we filed a baseline petition with EPA and contacted EPA staff requesting that they address our petition in a timely fashion. We stressed that without resolution of the baseline issue, we would not be in position to know what fuel we would need to begin producing in the fall. Although EPA issued the direct final RFG rule on July 1, it will not be published in the Federal Register for several more weeks. The Question and Answer document was likewise issued on July 1 and is currently being reviewed. More importantly, we have not received EPA's response to our baseline petition and are concerned that, in view of the large volume of baseline petitions received by EPA, we may not receive its response until after we have begun producing RFG. This could have an adverse effect on our RFG production since several of the basic stipulations of the rule are based directly on the refiner's baseline fuel properties.

EPA has also not responded to our request for clarification of the analytical test methods to be used in determining compliance with the RFG regulation. Specifically, for the determination of aromatics and oxygen content, EPA has proposed methods which are not widely used within the industry at this time. EPA has recognized this and has proposed to allow existing ASTM methods as alternates for aromatics and oxygen determination until January 1, 1997, provided results from these alternate methods can be correlated back to the preferred methods. Without precise definition of how we are to establish the correlation between test methods, we can not assess whether this is a viable compliance alternative for us. If our existing methods (i.e., alternates) can not be satisfactorily correlated with EPA's preferred methods, we will have to expedite procurement, installation and calibration of new analytical equipment while simultaneously attempting to certify reformulated gasoline at our refinery laboratories. This is hardly consistent with providing industry adequate lead time for compliance.

EPA's Renewable Oxygenates Regulation (ROXY) also poses significant complications for us in implementing the RFG rule. Due to the length of the summer season in Southern California and the sizable vapor pressure increase typically observed when ethanol is blended in gasoline, it is unlikely that refiners will be able to satisfy any part of the mandated renewable oxygenate volume requirement with ethanol. As a result, the rule will effectively become an ETBE mandate; because only ETBE could avoid the

vapor pressure/carbon monoxide problem in the winter and get credit in the program during the summer. This raises several questions, including the availability of ETBE (particularly in California) and the ease of conversion of existing MTBE processes to ETBE. We have seen no evidence from EPA that ETBE will be available at the levels required to satisfy demand. Although we believe that conversion of MTBE units to ETBE is not particularly difficult from a technical standpoint, we are concerned that the conversion cost can vary significantly and that the volume of ETBE produced after conversion may be substantially lower than the corresponding MTBE volume.

EPA has not examined the impacts on refiners of California gasoline that are in the middle of refinery construction to meet 1995/96 federal and California RFG requirements. An important corollary of the ROXY rule's potential to become an ETBE mandate in California is that ETBE has a significantly different effect than MTBE on the distillation characteristics of the gasoline it is added to. Specifically, the 50 percent distillation point (T50) of the fuel is only reduced approximately half as much as it would be through the addition of the equivalent oxygen as MTBE. This is particularly important in California, where the state's Air Resources Board (ARB) has mandated a T50 maximum of 210 degrees Fahrenheit as part of California's Phase 2 RFG specifications. To simultaneously comply with ARB's T50 and vapor pressure specifications while satisfying EPA's proposed renewable oxygenate requirements, California refiners may need to reexamine and possibly revise, their reformulated gasoline projects. This could obviously have serious consequences as it is unlikely that the industry could reposition itself by early 1996 when California reformulated gasoline is required.

In addition to adversely impacting construction schedules, an ETBE mandate could have devastating economic impact for certain refiners of California gasoline. Tax laws do not allow ETBE producers or users to claim the excise tax exemption; they can only claim the credit on income taxes. Many companies (including Unocal) are restricted in the ability to claim that credit under Alternative Minimum Tax rules. Therefore, the ROXY requirement in California becomes an ETBE mandate without the tax credit essential to its potential economic effectiveness. Once implemented, the ROXY rule will raise the cost of already expensive California gasoline beyond any ability of the consumer to comprehend and further complicate the serious concerns in the state for a smooth introduction of reformulated gasoline.

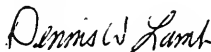
Since the closing of the ROXY rule comment period, EPA has taken yet another action that significantly hinders our ability to plan for smooth transition to the reformulated gasoline era. EPA's proposed Federal Implementation Plan (FIP) for California proposes the reclassification of Sacramento's ozone non-attainment status from "serious" to "severe". If this occurs, Sacramento will be required to comply with the Federal RFG regulation twelve months after its reclassification date, or as early as February, 1996. Compliance with the Federal RFG rule would also subject Sacramento to the ROXY requirement on the same date. Sacramento is not part of the supply and distribution system of southern California. Only southern California areas have, until now,

anticipated any involvement with EPA's RFG program. We have no plans for the manufacturing or distribution of EPA RFG in northern California markets.

The potential inclusion of Sacramento in the ROXY program raises additional serious concerns regarding 1) the availability of ETBE, 2) distribution system logistics (i.e., how can refiners segregate Sacramento through a distribution system that supplies most of northern California, and 3) permitting for any additional refinery or terminal modifications that may be needed to supply Sacramento. History shows that engineering planning, environmental review, permitting, facility construction/modification and testing will take substantially longer than the one and a half years that remain from now to February, 1996.

Unocal encourages your subcommittee to continue its efforts to encourage EPA to respond to industry's RFG implementation concerns and to fully air the facts about the renewable oxygenates rule. We would be happy to answer any additional questions you, or your subcommittee may have.

Sincerely,



Dennis W. Lamb
Manager, Fuels Planning

cc: The Honorable Dan Schaefer
The Honorable Carlos Moorehead

NLE/roxy_com

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94 AUG 16 PM 4:15

R. E. HALL
 President
 Chief Executive Officer

ENERGY AND COMMERCE
 U.S. HOUSE OF REPRESENTATIVES

CITGO Petroleum Corporation
 Box 3758
 Tulsa, Oklahoma 74102

August 15, 1994

The Honorable John D. Dingell
 Chairman
 House Committee on Energy and Commerce
 2328 Rayburn House Office Building
 Washington, D.C. 20515-2216

Alan
 1- Answer
 2- Advise

Re: H.R. 4624 - Foreign Refiner Baseline

DFinn
 (L)

Dear Chairman Dingell:

I am aware that you have communicated with Subcommittee Chairman Stokes regarding the foreign refiner baseline issue. I concur with the concerns you have voiced.

As President of CITGO Petroleum, I am convinced that PdVSA can meet the requirements of EPA's proposed rule. I share your concern that a prohibition of Fiscal Year 1995 funds will only serve to diminish enforcement of this rule and raise unwarranted environmental concerns. Since CITGO stands behind the quality of all of its products, including imported gasoline, it is critical that EPA have the wherewithal to enforce the rule.

Sincerely,

xc: The Honorable Carlos J. Moorehead
 Ranking Minority Member
 Committee on Energy and Commerce

The Honorable David R. Obey
 Chairman
 Committee on Appropriations

7 - letters, misd

R. E. HALL
 President
 Chief Executive Officer

CITGO Petroleum Corporation
 Box 3758
 Tulsa, Oklahoma 74102
 March 24, 1994

Mr. Warren Christopher
 Secretary of State
 Department of State
 2201 C Street, N.W.
 Washington, D.C. 20520

Dear Mr. Secretary:

I would like to commend the Administration for its decision to initiate rulemaking that allows Venezuela to continue participation in the U.S. gasoline market. CITGO is the major buyer and seller of gasoline from Venezuela. This issue is important because approximately 210 CITGO distributors in the Northeast and Mid-Atlantic states depend to some extent on PDVSA gasoline. These distributors supply 5,200 retail gasoline outlets that employ some 42,000 people. Our customers appreciate the reliability of gasoline supply that CITGO maintains, and become concerned when gasoline supply is constrained.

I would also like to clarify what I believe are some inaccuracies contained in recent correspondence you have received regarding the "cleanliness" of gasoline supplied to the United States by Venezuela's Petróleos de Venezuela, S.A. (PDVSA). Recent statements made by the American Petroleum Institute (API) and the National Petroleum Refining Association (NPRA) are in our opinion misleading. Both of these groups recently sent you a letter implying that air quality standards would be compromised should PDVSA be allowed to continue supplying gasoline to the U.S. market. I do not believe this to be the case.

I should point out that the average 1990 gasoline baseline so often referred to is not one number, but 9 individual gasoline parameter averages. Therefore, all domestic gasolines will be higher or lower on some of these parameters depending on the particular refinery. While it is true that PDVSA gasoline is higher in olefins and sulfur than average 1990 domestically refined gasoline parameters, other parameters, particularly air toxics like benzene and aromatics, are lower than average U.S. baseline parameters. Some domestically produced gasoline will also be higher in olefins and sulfur than the average baseline, and indeed be

Mr. Warren Christopher
Page 2
March 24, 1994

very similar to Venezuelan gasoline. The agreement EPA and PDVSA have reached should assure that PDVSA gasoline will be as clean as most domestically refined gasoline, and thus should not detrimentally affect U.S. air quality problems.

With reference to market concerns some companies may have, a report dated September 2, 1993, by the Congressional Research Service concluded the following:

In sum, it would appear that granting PDVSA its own 1990 baseline would not lead to a change in gasoline brand market shares significantly larger than occurs regularly from the mix of market forces at large. It would, however, reduce slightly, in markets served by PDVSA, the pressure for higher gasoline prices generated by the RFG program's requirements.

I appreciate the opportunity to clarify this matter, and would be happy to discuss it with you at your convenience.

Sincerely,



Ron E. Hall
President and Chief Executive Officer

xc: Anthony Lake



Charles T. Walz
Vice President
Refining

RECEIVED
Texaco Refining and Marketing Inc.
94 JUL 13 AM 10:56

10 Universal City Plaza
Suite 1440
Universal City CA 91608
818 505 2641

SUBCOMMITTEE ON
OVERSIGHT AND INVESTIGATIONS

T.
RS
Finn
DBF

July 5, 1994

The Honorable John D. Dingell
Chairman
Subcommittee on Oversight and Investigations
Rayburn House Office Building
Washington, DC 20515-6116

Dear Mr. Dingell:

In your June 17, 1994 letter to the American Petroleum Institute and the National Petroleum Refiners Association you stated your Subcommittee desires to know what problems the refining industry may have regarding the implementation of the Clean Air Act Amendments of 1990 (CAAA). Specifically your Subcommittee is seeking assurance that the implementation of the reformulated gasoline (RFG) and anti-dumping requirements of the CAAA will occur by the January 1, 1995 deadline. The following are comments from Texaco Refining and Marketing Inc. (TRMI) on this topic.

TRMI is a wholly-owned subsidiary of Texaco Inc., which is a multinational integrated oil company incorporated under the laws of the State of Delaware. TRMI's principal business is the refining of crude oil and the marketing of gasoline and other petroleum products refined from crude oil. TRMI has 100% ownership of four refineries and 50% ownership of three refineries, all located in the United States of America. These refineries have a combined crude oil processing capacity of approximately 830,000 barrels of crude oil per day.

TRMI perceives that there may be significant problems with the implementation of RFG and conventional gasoline regulations. These problems may manifest into spot shortages of gasoline with concomitant short-term price spikes. In general, TRMI's concerns center upon the late promulgation of the rule (December 15, 1993 -- nearly two years passed the original deadline) and the incompleteness of the rule. At this late date, refiners are still waiting for the EPA to announce several controversial rule-making decisions that should have been addressed in finality in the promulgation. Time is a commodity that manufacturers may not waste. TRMI had to financially commit to producing RFG two years ago, well before the 'final' promulgation of the rule. We can

Mr. John D. Dingell
July 5, 1994
Page 2

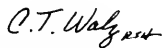
only hope our educated guesses are substantially correct as this drama continues to unfold. Our specific comments follow:

- Timeliness of 1990 Baseline approval. One of our refineries submitted its 1990 Baseline during March of 1994 for approval and has yet to receive comment upon it. Since this was the first and only submission during that time frame, what will be the turnaround time on 1990 Baselines this Summer when all manufacturers have to submit? How does one manufacture RFG beginning this Fall when one does not know its Baseline?
- The renewable oxygenate proposal. TRMI has made significant investment in processing units that produce oxygenates that are not considered renewable. TRMI has also committed to long term contracts of non-renewable oxygenates to ensure the market demands for RFG were met. How are we suppose to carry out our manufacturing plans when the rules are being changed at the eleventh hour? How are we to tell our shareholders that a significant investment in the production of RFG has been rendered worthless by regulatory fiat?
- Independent sampling and testing and compliance surveys. Heretofore quality assurance of gasoline has been through 'trust but verify'. The industry has been trusted to comply with applicable standards, and regulatory agencies have spot sampled and enforced significant penalties for noncompliance. This program has worked well for more than 50 years, supplying the United States with the highest quality gasoline in the world. With the new regulations trust has been thrown out. The industry (hence the consumer) must spend tens of millions of dollars annually on independent sampling, testing and surveys. What is the emissions cost effectiveness of this portion of the regulation?
- Despite prohibition of publication of Confidential Business Information under 18 U.S.C. Section 1905, EPA plans to publish 1990 Baseline data in the Federal Register. Our company, as well as others in the petroleum industry, consider refinery Baseline data to be Confidential Business Information. Publication of such data could result in reduction of competition in the industry, with an attendant increase in the price of gasoline to the consumer.
- The presumptive liability portion of the regulation assumes every party in the distribution chain is guilty when an infraction has been discovered. This will result in too much conservatism by the various parties in the distribution chain, causing costs to increase and reducing gasoline supplies.

Mr. John D. Dingell
July 5, 1994
Page 3

TRMI appreciates your subcommittee's consideration of these issues.

Sincerely,

A handwritten signature in cursive script that reads "C.T. Walz" with a small "rtd" or similar mark at the end.

Charles T. Walz
Vice President of Refining

rfm

cc: The Honorable Hazel R. O'Leary, Secretary
Department of Energy

The Honorable Carol M. Browner, Secretary
Environmental Protection Agency



P.O. Box 3758
Tulsa OK 74102-3758

CITGO Petroleum Corporation

June 21, 1994

Hon. John D. Dingell, Chairman
Subcommittee on Oversight & Investigations
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Re: Hearing on EPA's Reformulated Gasoline
Rule -- 30% Renewable Oxygenate Mandate

Dear Mr. Chairman:

CITGO Petroleum Corporation applauds your inquiries concerning implementation of EPA's reformulated gasoline (RFG) rule under the 1990 Clean Air Act Amendments. Earlier this month, I testified before Senator Johnston's Committee on the important environmental and energy policy issues presented by EPA's proposed "renewable oxygenate" mandate which, as you know, in effect guarantees a 30% market share for ethanol. CITGO has a unique perspective which we believe may be helpful to your Subcommittee's inquiries. Accordingly, we would appreciate your inclusion of this letter in the record of the Subcommittee's investigation.

CITGO is a large refiner of crude oil and a branded marketer of refined petroleum products, including gasoline, diesel fuel, aviation jet fuel and heating oils. Of direct relevance to your Subcommittee's hearing, CITGO is one of the largest shareholders in Colonial Pipeline, the major refined petroleum product pipeline serving the mid-Atlantic and Northeastern U.S. -- regions where CITGO has a significant market presence and where EPA's ethanol mandate could have some of the most severe adverse price and supply consequences. CITGO's concerns about the potentially dire consequences of EPA's ethanol mandate are based upon our own experience with the supply and logistical problems associated with marketing of ethanol-blended gasolines. During the mid-1980s, CITGO was the Nation's largest marketer of gasohol; thus, we have first-hand experience with the unique supply and logistical demands created by ethanol.

Based upon our experience, CITGO is convinced that EPA's ethanol mandate will have severe supply and price repercussions in the marketplace. Ethanol has several undesirable properties as a motor fuel component, including miscibility with water and the ability to act as a solvent for petroleum residues. Because of these properties,

Hon. John D. Dingell
June 21, 1994
Page 2

gasolines containing ethanol cannot be transported by the national pipeline distribution system for gasoline. These properties also impose special requirements for storage of both ethanol and ethanol-blended gasolines.

The great bulk of the nation's supply of refined petroleum products is shipped by pipelines in which a variety of refined petroleum products are shipped in "batches." These pipelines are the most efficient and cost effective means of shipping large quantities of refined petroleum products and are also the safest and most environmentally benign form of petroleum product transportation.

The inability to ship ethanol-blended gasolines by pipeline will necessitate local terminal blending of ethanol with gasoline blendstocks formulated specifically for this purpose (so-called "RBOB") to produce the oxygenated gasolines mandated by EPA. Several adverse logistical consequences are likely to result from this course:

First, there is a geographic mismatch between supply and demand. The Mid-Atlantic and Northeast regions, which will require ethanol blending under the EPA mandate, are located far from the major domestic ethanol production facilities. These facilities are concentrated in the upper Midwest, near the areas in which the industry's corn-based feedstock is grown. This geographic mismatch will necessitate truck, rail or barge shipment of ethanol supplies from the Midwest to the Mid-Atlantic and Northeast. Weather-related and other interruptions in this flow of ethanol to markets where its use has been mandated is likely to result in spot-shortages of oxygenated gasoline even though adequate supplies of gasoline blendstocks are available.

Second, many of the market areas in which ethanol will have to be blended are not currently equipped to conduct ethanol blending. The terminal facilities that serve these areas lack the segregated storage needed to accommodate large quantities of ethanol. In the case of many of these terminals, legal and/or environmental considerations, or simply a lack of land, will preclude the installation of the additional tankage to permit local ethanol blending. Where that is the case, terminal operators will be forced to reduce the slate of petroleum products they carry in order to permit conversion of existing petroleum product storage to segregated ethanol storage. The reduction in storage is likely to be concentrated on products with historically smaller margins, such as heating oil, and could reduce the availability of these products in the marketplace.

Moreover, where additional tankage can be constructed, including at specialized terminals, the result will be higher costs. Even then, obtaining the

Hon. John D. Dingell
June 21, 1994
Page 3

required construction permits and construction of the additional tankage cannot be completed by the proposed December 1, 1994 terminal conversion date. This would place the industry in the dilemma of choosing whether to comply with the law or permit shortages to occur.

In any event, even if the overall availability of petroleum products remains adequate, changes in distribution patterns induced by EPA's ethanol mandate will have to occur. In simple terms, EPA's mandate for blending of ethanol in gasolines in the Mid-Atlantic and Northeast is likely to result in higher prices, not only for gasolines, but also for the heating oil consumed in these regions.

Third, if the implementation date remains unchanged and marketers act in an economically rational manner, the storage problems associated with ethanol blending are likely to become critical during periods of switch-over between ETBE blends in the summer and ethanol blends in the winter. (Such a winter/summer switch, while inefficient, may be the only way to satisfy the 30% mandate in the first year.) The RBOB required to blend ethanol in the winter will be different from, and must be segregated from, the ETBE blends required in the summer. These fuels cannot be commingled so tankage at both terminals and retail locations must be converted to fuels containing the different oxygenates. If the industry is to avoid outages in the marketplace, both types of fuels must be produced, shipped, and stored at the terminals during the transition periods in the spring and fall. In far too many instances, the storage tanks required to segregate these products do not exist and cannot be built within the required time-frame.

Fourth, the recent DOE/National Petroleum Council Study entitled "U.S. Petroleum Refining" has confirmed the general rule that the more grades of product shipped in a pipeline, the lower its effective capacity. EPA's ethanol mandate will require a proliferation of additional gasoline blendstocks. This will result in reduced pipeline efficiency and have an adverse effect on the availability and price of gasoline and other fuels.

The Colonial Pipeline is the primary source of gasoline supplies for the Northeast besides those produced within the region. Current levels of petroleum product demand have already required the Colonial Pipeline to operate at capacity during several periods in the past year. Even without the ethanol mandate, EPA's rules for reformulated gasoline will add a *minimum* of 4 grades (premium and regular grade unleaded/northern and southern) on the pipeline. The ethanol mandate would effectively mandate a minimum of 4 *additional* grades

Hon. John D. Dingell
June 21, 1994
Page 4

of ethanol blendstock (RBOB), further reducing the effective capacity of Colonial Pipeline.

CITGO believes that a likely consequence of the reduction in the effective capacity of the Colonial Pipeline is that additional waterborne shipments of petroleum products will be required from refineries located on the Gulf Coast to terminals serving the Mid-Atlantic and Northeast. Compared to pipeline transportation, waterborne movements have greater risk of environmental damage due to spills. And, unlike pipeline shipments, waterborne shipments are subject to weather-related disruptions, increasing the risk of periodic, temporary spot-shortages.

The increased waterborne shipments of petroleum products induced by the reduced efficiency of the Colonial Pipeline will place additional pressure on the limited number of Jones Act tankers that may lawfully participate in domestic transport of products between two U.S. ports. The increased demand for these tankers will invariably drive up shipping costs and raise the price of gasoline and other fuels on the East Coast.

Persons unfamiliar with the competitive realities of gasoline marketing have suggested that ETBE is the panacea that will overcome the logistical and supply-related problems inherent in ethanol blending. There are two fundamental reasons why this view is wrong. First, in the near-term there is simply not enough ETBE capacity. The reality that ethanol is the *only* near-term option undercuts ETBE as a long-term solution. Ethanol blending will require investments in facilities and equipment that would be rendered useless by a subsequent switch to ETBE, making this "long-term" solution less cost effective once the initial commitment to ethanol blending has been made. Second, even if ETBE capacity were adequate, ethanol would still enjoy a cost advantage over ETBE. Because of this cost advantage, some gasoline marketers are likely to opt for ethanol over ETBE on a long-term basis. In today's highly competitive gasoline marketplace, no gasoline marketer can afford to willingly cede a cost advantage to its competition. Accordingly, competition and costs are likely to drive the renewable oxygenate selection decision toward ethanol -- rather than ETBE -- notwithstanding the severe supply, logistic and environmental risks posed by ethanol blending.

Most ethanol is currently produced and sold in the Midwest, while the price and supply consequences of EPA's mandate will be felt in the Mid-Atlantic and Northeast. Thus, EPA's proposed ethanol mandate will provide a relatively marginal subsidy for a small group of ethanol producers in the Midwest at great expense and inconvenience to motorists and homeowners in the Mid-Atlantic and Northeast, and to taxpayers

Hon. John D. Dingell

June 21, 1994

Page 5

nationwide who, through the federal motor fuel excise tax exemption for gasohol, will pay an additional \$340 Million in subsidies to ethanol producers. Incredibly, the tax-subsidized, guaranteed market share produced by EPA's ethanol mandate will largely benefit a single company which appears to control more than 65% of domestic ethanol production capacity with virtually no regulatory oversight or supervision.

Sincerely,

Handwritten signature of Steve Berlin in cursive, with the initials "WFD" written below it.

Steve Berlin
Senior Vice-President,
Finance and Administration
Chief Financial Officer

cc: Rep. Dan Schaefer, Ranking Minority Member
Rep. Sherrod Brown
Rep. Marjorie Margolies-Mezvinsky
Rep. Henry A. Waxman
Rep. Cardiss Collins
Rep. Ron Wyden
Rep. John Bryant
Rep. Carlos J. Moorhead
Rep. Joe Barton
Rep. Fred Upton

CLARK

RECEIVED

94 JUL 22 AM 10:34

SUBCOMMITTEE ON
OVERSIGHT AND INVESTIGATIONS

REFINING & MARKETING, INC

8182 Maryland Avenue
St. Louis, Missouri 63105-3721
ph 314-854-9696 fx 314-854-1580To
RS
Finn
DBF

July 21, 1994

The Honorable John D. Dingell
U.S. House of Representatives
Subcommittee on Oversight & Investigations of the
Committee on Energy & Commerce
Rayburn House Office Building
Room 2323
Washington, DC 20515-6116

Dear Representative Dingell:

Attached are some comments from Clark Refining & Marketing, Inc. on concerns on implementing the gasoline regulations of the CAA. This is in response to your request for comments on significant problems that could hinder implementing the final gasoline regulations of the CAA. A fax of the attachments was sent today, July 21, 1994.

Sincerely,

CLARK REFINING & MARKETING, INC.



Carl J. LaFoy
Manager, CAA

CJL/db
Attachments to Finn



**Clark Refining's Concerns About The
Gasoline Regulations of the CAA**

7/21/94

Looking Forward

From a here-looking forward view on trying to improve the current situation on implementing the gasoline regulations of the CAA, I would propose that the following actions be taken by the EPA:

- 1] Have the EPA issue monthly Q&A's and regulatory clarifications/changes until all issues have been cleared up. This is important considering the extremely tight schedule until the CAA regulations start. I don't feel that waiting several months on responses to critical issues is an option any more.
- 2] Promptly issue a summary or preliminary release of the enforcement procedures; and as a minimum, an updated version of the preliminary additive regulations.
- 3] The U.S. has very efficient and proven commodity systems. Allow benzene, oxygen, and ROS credits to be efficiently traded by third party brokers. Forcing refineries to have to deal on a one-to-one basis with other refineries creates needless inefficiencies. These brokers could even be forced to purchase an excess amount of credits to help insure all remaining credits traded are valid.
- 4] Allow a little more time and flexibility by changing the rule from requiring all RFG terminal tanks be turned over by 12/1/94, to requiring that all material going into RFG terminal tanks be RFG starting 12/1/94. Abuse of this flexibility could be minimized by requiring RFG terminal tanks be at 1/2 or lower inventory if not turned over by 12/1/94 to qualify for RFG status.
- 5] Resolve the following specific issues:
 - A) The EPA limits oxygen to 3.5Wt% in winter, and 2.7Wt% in summer. These limits do not allow for any error or reasonable change in properties at best, and unfeasibility in some cases, to add at least 10.0LV% ethanol in the winter or at least 7.7LV% in the summer, which happen to be cutoffs for receiving federal tax credits. See the "Oxygenate Blending Options" attachment for details.

The EPA considered this effect and modified the maximum wt% oxygen in conventional gasoline, (see Item 1 of the Direct Final Rule, pages 20-21 which are attached), yet the EPA has not been consistent by not extending the oxygen wt% limits in RFG.

A possible solution would be to eliminate the 3.5Wt% limit as the 3.5Wt% limit only applies to ethanol and ethanol is limited to 10LV% with existing regulations, and to either eliminate the summer 2.7Wt% limit or modify the 2.7Wt% limit to allow the for the greater of 2.7Wt% oxygen or 8.1LV% ethanol, (7.7LV% plus 0.4LV% ethanol tolerance).

Clark Refining's Concerns About The
Gasoline Regulations of the CAA

7/21/94

5] Continued: (Specific issues needing to be resolved)

- B) The commingling rule of no mixing of summer Ether-RFG and Ethanol-RFG will cause a major retail logistical nightmare if there is a supply disruption of Ethanol-RFG. Switching from summer Ethanol-RFG to Ether-RFG will require pumping out retail tanks before backfilling.

This is a very difficult situation to coordinate when you have over 150 stations in an RFG area and you need to perform this task within a days to minimize stores running out of gasoline. Also, other companies may be converting at the same time which will overwhelm the retail trucking system. Significant retail store outages will be an outcome.

The EPA needs to allow commingling summer Ethanol-RFG and Ether-RFG to switch from Ethanol-RFG to Ether-RFG in retail store tanks if commingling is unavoidable due to a major refinery production outage of Ethanol-RFG. A reverse switching from Ether-RFG to Ethanol-RFG would also need to be allowed once the refinery outage has been eliminated. An initial estimate is that less than 2/3 of a day of the total gasoline demand from a company's retail system would be commingled by such an outage.

**Clark Refining's Concerns About The
Gasoline Regulations of the CAA**

7/21/94

Perspective

Looking back, I feel the following overall points are important to stress concerning our current situation:

- 1] The EPA has in general been somewhat reasonable in trying to get the regulations to fit the intent of the CAA; however, the EPA has not been economically efficient in their solutions. One only has to begin to understand the complexity of the existing regulations and determine that most of the benefits could be obtained with far simpler regulations.

- 2] The EPA has not been timely in issuing their regulations. Just weeks ago they issued another 2 1/2 inches of RFG related regulations, and they still have yet to issue their final additive regulations for 1995 or their enforcement procedures for RFG. This is a critical problem. We have been given a overly rigorous schedule of 10 1/2 months from the initial release of the regulations in 12/93, to be fully capable of producing RFG by 11/1/94 (RFG production has to start early 11/94 in order to comply with the requirement that all terminal RFG tanks be converted by 12/1/94). A tight but reasonable schedule is over three years as justified below:
 - A) Three months to properly read, understand, and interpret the regulations.
 - B) Four months to establish a baseline.
 - C) Eight months to explore options and determine the most efficient and economical means to comply.
 - D) Over two years to permit and implement capital projects.
 - E) A start up grace period of a minimum of six months following implementation of capital projects to adjust a new mode of operation.
 - A) It takes time to properly read, understand, and interpret the regulations. Time is needed to identify and strategize solutions to the new limitations and constraints regulations impose. Additional time will also be needed later to determine solutions to opportunities and regulatory changes that will arise during the implementation period.
 - B) After you understand the regulations, you first have to do additional work before you can even apply the regulations, i.e. determine baselines. Baseline methodology is still not completely set, and determining your baseline takes months of hard work and at considerable cost.
 - C) Next you have to determine economic ways to comply. The process is critical to be a cost efficient refiner, and takes at least eight months to properly explore options.
 - D) Finally you begin to implement projects. A process that is slowed down significantly by the difficulty of going through the permitting process. Refinery capital projects can often take years to implement. Even rush projects take at least 6 - 12 months.
 - E) No capital project starts up without some difficulties. Allow at least six months to adjust to your new mode of operation after the capital projects are initially operational. This period is critical to help ensure no or very few violations.

Clark Refining's Concerns About The
Gasoline Regulations of the CAA

7/21/94

- 3] Until any enforcement document states otherwise, refineries are presumptuously guilty until proven innocent, to the tune of default of 25 days at \$25,000/day per property per occurrence. Yet the EPA doesn't meet deadlines, makes mistakes, doesn't issue enforcement procedures well before the fact, and no one can fine them.
- 4] Fungible gasoline has made the U.S. refinery distribution system the most efficient in the world. Why jeopardize breaking something that has given so much value to the consumers. Bottom line, CAA regulations will drive the cost to consumers higher just from new logistical constraints.

Please feel free to contact me if you have any comments or questions.

Sincerely,


Carl J. LaFoy

Carl J. LaFoy
Clark Refining & Marketing
8182 Maryland Ave.
St. Louis, MO 63105-3721

(314) 854-1514
(314) 854-1580 (fax)

Oxygenate Blending Options

Item	Oxy Wt%	Ethanol	MTBE	ETBE
LV% to Achieve a Oxygen Wt% of:	1.5%	4.25%	7.93%	9.73%
See *(1) & *(2) below for basis.	2.0%	5.68%	10.60%	12.97%
	2.1%	5.96%	11.13%	13.62%
	2.7%	7.67%	14.35%	17.52%
	3.5%	9.96%	na	na
Blending Octane		115	106	110
Wt% Oxygen in Oxygenate		34.7%	18.2%	15.7%
API		47.6	59.2	58.9
SG		0.7901	0.7901	0.7432
Purity		94.8%	97.5%	97.5%
SubReg Octane Needed to Meet 87.0 Octane With Oxygen Wt% of:	1.5%	85.8	85.4	84.5
	2.0%	85.3	84.7	83.6
	2.1%	85.2	84.6	83.4
	2.7%	84.7	83.8	82.1
	3.5%	83.9	na	na
SubPrem Octane Needed to Meet 92.0 Octane With Oxygen Wt% of:	1.5%	91.0	90.8	90.1
	2.0%	90.6	90.3	89.3
	2.1%	90.5	90.2	89.2
	2.7%	90.1	89.7	88.2
	3.5%	89.5	na	na

Other less likely oxygenate options also exist, i.e. TAME.

*(1) - LV%'s assume an RBOB or CBOB API of: 61.0 =SG of 0.7351

*(2) - LV%(Oxy) is based on the following clarifications and three equations:

Assume SG(Pure Oxy) = SG(Oxy Mix)

Oxy = Oxygenate Mix

Ox = Oxygen

Wt%(Ox in Oxy) was determined based on pure oxy, chemical formula, and mol weights.

BOB = RBOB or CBOB

Bin = Oxygenate + BOB

$$\text{Bin Eqn 1} \quad \text{Wt}(\text{Ox}) = (\text{LV}(\text{Oxy}) * \% \text{Purity}(\text{Oxy}) * \text{SG}(\text{Oxy}) * \text{Wt}(\text{Ox in Oxy}) / \text{SG}(\text{Bin}))$$

$$\text{Bin Eqn 2} \quad \text{SG}(\text{Bin}) = (\text{LV}(\text{Oxy}) * \text{SG}(\text{Oxy}) + (1 - \text{LV}(\text{Oxy})) * \text{SG}(\text{BOB}))$$

$$\text{Bin Eqn 3} \quad \text{LV}(\text{Oxy}) = \text{SG}(\text{BOB}) / (\% \text{Purity}(\text{Oxy}) * \text{SG}(\text{Oxy}) * \text{Wt}(\text{Ox in Oxy}) / \text{Wt}(\text{Ox}) + \text{SG}(\text{BOB}) - \text{SG}(\text{Oxy}))$$

Citizen Action

1120 19th Street, N.W., Suite #630
 Washington, D.C. 20036
 (202) 775-1580
 (202) 296-4054 (FAX)

REC-1
 94 MAR 24 11 12:02
 ENERGY AND COMMERCE
 U.S. HOUSE OF REPRESENTATIVES

MAR 22 1994

Dear Representative:

It has come to our attention that Rep. Jack Fields (R-TX) is circulating a letter to members of the House of Representatives opposing the Environmental Protection Agency's proposed renewable oxygen standard (ROS) for the Reformulated Gasoline (RFG) program. We urge you not to sign this letter for several reasons.

First, the EPA's proposed Renewable Oxygen Standard would only require 1.6 volume percent of all reformulated gasoline (about 25% of the nation's total volume of gasoline expected to be sold in 1995 will be reformulated) be derived from renewable resources. The remaining 98.4 percent will still be components manufactured from crude oil.

Second, the EPA's proposed ROS is designed to provide Americans with cleaner-burning, renewable fuel components as opposed to dirty, non-renewable, imported oil-based hydrocarbons. Unless the United States begins to shift to alternative domestic fuels and improves the fuel economy of its transportation system, we will continue to increase the environmentally and economically costly importation of foreign oil and foreign methyl tertiary butyl ether (MTBE), the U.S. refining industry's oxygenate of choice.

Third, it must be pointed out that the American Petroleum Institute and major refiners like Chevron, Mobil, Shell and Exxon are spending millions of dollars in misleading public relations efforts designed to frighten consumers and turn Congress against the EPA's excellent initiative. The major oil refiners have a clear vested interest to maintain their market dominance and to prevent the entry of competing fuels. The major oil refiners have shifted billions of investment dollars away from U.S. energy industry into foreign oil ventures and have directly and indirectly increased U.S. dependence on the Persian Gulf and other politically insecure areas of the world.

The EPA's ROS proposal will promote domestic energy sources. It will promote competition and it will contribute to cleaner air. We urge you to support the EPA's ROS, not oppose it.

Sincerely,



Edwin S. Rothschild
 Energy Policy Director

NATIONAL PETROLEUM REFINERS ASSOCIATION*Founded 1902*SUITE 1000, 1899 L STREET, N.W., WASHINGTON, D.C. 20036
TELEPHONE (202) 457-0480

July 21, 1994

Honorable John D. Dingell, Chairman
Subcommittee on Oversight and Investigation
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515-6116

Dear Chairman Dingell:

This letter is written in response to your of June 17th request for information from the U.S. refining industry on significant problems which could hinder the smooth implementation of the reformulated gasoline program January 1, 1995. We would like to bring to your attention circumstances which could prevent us from meeting this deadline.

Successful implementation of the RFG program is extremely important to the domestic refining industry. We and our members are doing everything possible to prepare for the transition, anticipate and resolve potential problems and obtain needed information and determinations from EPA. However, as we move ahead with this massive program that impacts one third of the marketed gasoline in this country, some aspects of the supply and logistic phases of this program are not going to be met without some inconveniences and possible disruptions. Late decisions on critical elements of the program by EPA have caused delays in planning and implementation for RFG manufacture and distribution by many of our members.

For successful implementation of the RFG program, the industry needed certainty. We are concerned that EPA has encumbered the final RFG program with so many special interest provisions that it will be unable to provide the necessary guidance to the industry as it begins to implement this massive and important program. We again reiterate our position that the certainty, which this industry and all participants in the negotiated rulemaking process sought, has been lost.

Since your subcommittee hearing on June 22nd, EPA has released its final rule on

renewable oxygenates. NPRA is very disappointed by this final rule which will impose unwarranted and costly burdens on domestic refiners both large and small, disrupt the largest ever transition to clean, reformulated gasoline and actually result in more energy consumption with no environmental benefit. Indeed, it is clear from the rules' preamble that the use of ethanol has attendant negative environmental consequences. NPRA has joined with the American Petroleum Institute to file a petition for stay with the Environmental Protection Agency and a petition for review and a stay of the final rule with the U.S. Court of Appeals for the District of Columbia. There is concern within the industry that there will be irreparable harm in the form of either noncompliance with the RFG rules or forgo sales of gasoline to RFG-covered areas where many NPRA members have made substantial investments for the purpose of selling gasoline to consumers. We are enclosing the documents which we have filed with the court on the ethanol mandate. We regret that this court action had to be taken to invalidate a bad rule which exceeds the bounds of authority the Congress granted EPA in the 1990 amendments to the Clean Air Act.

In addition to the cost and operational burdens associated with mandated use of ethanol, the regulation imposes a host of new questions about industry's requirements. At this late date, many of our members simply do not know how to carry out the renewable oxygenate mandate. EPA has indicated they will issue a question and answer document to clarify the regulation. We have no idea when this will be issued, but with RFG production beginning for many companies as early as September, we do know that the answers will come too late.

EPA's recent proposal accommodating the government of Venezuela changing the foreign refiner baseline specifications is also very unsettling. We are greatly concerned that the review and comment process for EPA's new proposal will only be cosmetic, and that EPA will have no choice but to finalize the proposal because of the pre-existing agreement between the Clinton Administration and the government of Venezuela. The PDVSA proposal adds to refinery uncertainty, is plainly unenforceable and will undermine the competitiveness of the domestic refining industry.

NPRA continues to be concerned about EPA's proposed detergent additive rule and the impact it could have on gasoline supplies January 1, 1995. The proposal, which is far more complex than necessary to accomplish the goals of the Clean Air Act, is not being given the proper attention within the agency. EPA is now telling industry that a final rule will not be released until October. Issuance of an extremely late and overly complex detergent additive regulation, scheduled to become effective on January 1, 1995, poses an additional uncertainty during the implementation of the RFG program. We believe the addition of onerous detergent additive requirements, which provide little if any environmental benefit, run the risk of interfering with the implementation and smooth introduction of the RFG program. We have attached a copy of our February 11th comments to EPA on this proposal.

To implement the CAAA and EPA regulations, the industry has sponsored several workshops to deal with the requirements. On March 7th and 8th, NPRA hosted a RFG Workshop with EPA to discuss specific requirements of the regulation and on May 25th API hosted a workshop with EPA to discuss the compliance survey required under the averaging provisions. NPRA has also been participating in the development of a consortium to conduct the compliance survey as well as a separate consortium to perform the fuels and fuel additives testing requirements of Section 211(b) of the CAA.

EPA has just released its direct final rule amending the regulations on reformulated and conventional gasolines as well as a Questions & Answers document on the final RFG rule. Our early impression from the industry is that there is still not adequate direction and it will probably be necessary for EPA to answer many additional and specific RFG questions almost on a refinery by refinery basis. Many of the questions submitted by industry to EPA involved guidance regarding the submission of baseline information which was due June 1st. Now, unfortunately, based on the recently issued guidance, much of the baseline information submitted to EPA is probably incomplete.

Public education and information by both industry and the Environmental Protection Agency about the program are essential. The clean fuels program is a massive new program and the general public needs to be informed about it so that any abrupt changes in gasoline supplies can be anticipated. We believe this is a responsibility of both the domestic refining industry and the Environmental Protection Agency, and we intend to participate in this process.

NPRA appreciates the opportunity to comment on the transition to a new clean fuels program. We would like to stay in contact with the Subcommittee on this subject as the January 1st deadline approaches, and after January 1 when gasoline supplies will be purchased by the public.

Sincerely,



cc: Honorable Carol Browner, Administrator, Environmental Protection Agency, w/o attachments
Honorable Hazel O'Leary, Secretary, Department of Energy, w/o attachments
David Finnegan - Counsel, House Energy & Commerce Committee, w/o attachments



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SUBCOMMITTEE ON
OVERSIGHT AND INVESTIGATIONS

July 13, 1994

Michael J. Couch
Vice PresidentTo
RS
Finn
DBF

The Honorable John D. Dingell, Chairman
U.S. House of Representatives
Subcommittee on Oversight and Investigation
of the
Committee on Energy and Commerce
Room 2323
Rayburn House Office Building
Washington, DC 20515-6116

Dear Representative Dingell:

Your subcommittee has requested that we respond to anticipated RFG implementation problems and our efforts to resolve them. We are pleased to provide our experience and future plans and hope that we can contribute towards resolving problems with future legislation and regulations.

Fina Oil and Chemical Company is an integrated oil company with large chemical operations and is headquartered in Dallas. We have two refineries and several plastics and chemical plants. We primarily market gasoline and fuel products in the South, Southwest, and Midwest; however, we also have provided a significant volume of gasoline in the Northeast through our Trading Services Division. Excluding any problems with the new EPA regulations, we would like to continue supplying commodity gasoline to the driving public at the lowest possible cost.

Unfortunately, the new EPA regulations on RFG and ROS (ethanol mandate) will prohibit us from supplying gasoline into certain areas which will most likely develop a shortage, primarily the Northeast U.S. In theory, the Clean Air Act Amendments established 1990 as the base year. Thus, gasoline supply should be equivalent to 1990 volumes and quality except where mandated otherwise. After the U.S. EPA finalized the regulations, we are unable to continue operations to provide the volumes of gasoline we delivered in 1990.

Even though we blended significant volumes of gasoline from both domestic and imported blendstocks to provide gasoline for the Northeast in 1990, the final EPA regulations prohibit us from using the 1990 quantity as a baseline. This creates artificial economics as we would be competing with others who use their actual baseline. To supplement this loss, we would consider importing finished gasoline from our affiliated refinery in Belgium, however, since we were not importing finished gasoline (only blendstocks) in 1990, we must import only statutory baseline gasoline. This puts us at economic disadvantage as others can use their own baseline.

FINA, Inc.

P O Box 2159 • Dallas, Texas 75221 • (214) 750-2893 • FAX (214) 750-2570

The Honorable John D. Dingell
July 13, 1994
Page 2

The U.S. EPA seems to believe that anyone with a 1990 baseline volume of gasoline can continue to supply product in the future. This is definitely not the case. Preliminary supply studies, such as the one by Bonner & Moore Associates, show a shortage of RFG in the Northeast. We would, under normal nonconstrained economic conditions, provide the gasoline from our Gulf Coast Refinery; however, again the EPA outright manipulation of market forces may prohibit us from supplying this need. The ROS (ethanol mandate) requires that we supply RFG oxygenates based on 15% ethanol in 1995 and 30% ethanol in 1996 + years. As ethanol supply is primarily in the Midwest and ETBE facilities are elsewhere, the logistics of handling ethanol and ETBE will be extremely difficult and expensive. Even though oxygenate credits for ethanol can, theoretically, be purchased, this does not eliminate any of the logistic problems. Also, credits will be available in specific regions only.

In summary, Fina Oil and Chemical Company would like to continue supplying low cost gasoline to the American driving public; however, the new U.S. EPA regulations make it extremely difficult, expensive, and even impossible in certain areas. We hope the U.S. Congress can help resolve the problems before shortages of gasoline develop, prices escalate, and actual performance goes down (lower mileage). As in the past, the oil industry reputation will suffer even though we have very little control of the situation.

Best regards,



Michael J. Couch
Vice President

MJC/awm



Diamond Shamrock

July 15, 1994

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SUBCOMMITTEE ON
OVERSIGHT AND INVESTIGATIONS

Roger R. Hemminghaus
Chairman and
Chief Executive Officer

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RS
Finn.
DBF

The Honorable John D. Dingell
Chairman
Subcommittee on Oversight and Investigations
Committee on Energy and Commerce
Rayburn House Office Building, Room 2323
Washington, D.C. 20515-6116

Dear Chairman Dingell:

Converting forty percent of the nation's gasoline supply to reformulated gasoline ("RFG") at the end of this year could cause local supply disruptions and price spikes. Dallas-Fort Worth ("DFW") is an area where such disruptions could occur. The DFW area is a traditional market for Diamond Shamrock and we are committed to supplying a significant volume of RFG from our McKee, Texas refinery to that market through our 360 mile pipeline.

However, the DFW area has a high potential for supply interruptions because EPA's mandated renewable oxygen standard significantly reduces logistical flexibility. Mandating even as little as fifteen percent of the RFG to contain renewable oxygenates in 1995, at this late date, is very disruptive to the plans which Diamond Shamrock has been pursuing for the last year to supply the maximum amount of RFG to the DFW area. We have already secured supplies of oxygenates but it is not ethanol based and does not meet the mandate. We, therefore, do not currently have any supply of renewal oxygenates and cannot meet the mandate unless we acquire those supplies. Ethanol will not meet our requirements since we do not have the appropriate blending system installed at our DFW terminal and doubt that we can have it completed by the start of the mandate period.

Additionally, supplies to the DFW area could be further reduced as pipelines adjust their operations to avoid violations caused by incidental mixing of reformulated gasoline with conventional gasoline during transmission per the

continued...

The Honorable John D. Dingell

Page 2

July 15, 1994

regulations and the additional guidance provided by the EPA on July 1, 1994. Diamond Shamrock wants the Subcommittee to be aware that the restrictions being placed on pipelines supplying the DFW area could cause serious RFG shortages.

Mandating renewable oxygenates and restricting pipeline utilization threatens adequate supplies to the DFW area and creates the possibility of price spikes. We share your concerns and hope that the Subcommittee can identify actions which will reduce the possibility of local price spikes in areas like DFW.

Sincerely,



Roger R. Hemminghaus
Chairman and CEO

NATIONAL PETROLEUM REFINERS ASSOCIATION

*Founded 1902*SUITE 1000, 1899 L STREET, N.W. WASHINGTON, D.C. 20036
TELEPHONE (202) 457-0480RYAN R. STERNFELS
President

June 7, 1994

Honorable John Dingell
Chairman
House Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515-6115

Dear Mr. Chairman:

It has come to our attention that your Oversight and Investigations Subcommittee may hold hearings on the requirements of the domestic refining industry to provide reformulated gasoline (RFG) to the nine ozone non-attainment areas and other areas that opt into the program beginning January 1, 1995.

The National Petroleum Refiners Association (NPRA) represents a large diversity of oil industry interests including nearly all large and small independent refiners and large, integrated refiners, many of whom also act as blenders, importers, and distributors. NPRA was intimately involved in the negotiated rulemaking (Reg Neg) process that preceded issuance of a very complicated and elaborate regulation nearly two years after the required date.

The domestic refining industry is committed to doing all that it can to ensure that sufficient product supplies are available to the marketplace beginning January 1, 1995. We have often advised the Environmental Protection Agency (EPA) that the refining industry must have "certainty" and confidence in the final rule so that it can make the necessary commitments for hardware and resources to meet the January 1, 1995 requirements. NPRA has repeatedly pointed out to EPA that, given the delays in promulgating the RFG final rule, the complexity of the regulation, and additional proposals which affect marketplace decisions, there can be no assurance that the RFG program will be implemented without significant disruption.

NPRA is working diligently to ensure that our members are fully apprised of the final rule. On March 7 & 8, NPRA and EPA hosted a two-day workshop attended by almost 300 industry people. On May 25th, we hosted, with the API and EPA, a day-long workshop on the Compliance Survey provisions of the final rule. And, we continue to urge EPA to resolve the many questions regarding implementation and enforcement arising from the complicated regulations. NPRA is establishing an "RFG HOTLINE" for our members who seek answers to questions about the regulations and which will serve as a mechanism for identifying problem areas. We are asking EPA to assist us in answering the questions.

NPRA is concerned that EPA continues to "tamper" with the RFG final rule. EPA's proposed "ethanol mandate," requiring that 30% of the oxygen content of RFG come from renewable oxygenates, was issued the same day that the final RFG rule was announced. EPA's recent proposal accommodating the government of Venezuela changing the foreign refiner baseline specifications is also very unsettling. Both of these issues, to this date, remain unresolved, and one or both will likely be subject to litigation should the proposals be adopted. The certainty, which this industry and all participants in the Reg Neg sought, is being lost as portions of the final rule are reopened, and the integrity of the negotiated rulemaking process is being compromised by last minute political accommodations.

We also continue to be concerned about EPA's proposed detergent additive rule and how it might impact gasoline supplies January 1, 1995. NPRA requested a more flexible program in our comments to the Agency. If EPA continues to pursue the type of program outlined in its additive proposal and it does not notify industry of its decisions until September, some companies may not be able to comply with the clean air act's detergent additive provisions required in all gasolines by January 1, 1995.

The convergence of these broad and very complex rules, very short time frames and many critical unresolved issues, diminish the likelihood for a smooth transition on January 1. Nevertheless, the domestic refining industry is committed to doing its best to ensure that the introduction of reformulated gasoline is as smooth as possible next January.

Please let us know if there is any additional information which we can provide. We would be pleased to work with you and your Committee.

Sincerely,



cc: Dave Finnegan
Attachments

NATIONAL PETROLEUM REFINERS ASSOCIATION

Founded 1902

SUITE 1000 1899 L STREET, N.W. WASHINGTON D.C. 20036
TELEPHONE 202-437-0480N.R. STERNFELD
President

November 10, 1993

The Honorable Carol M. Browner
Administrator
United States Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Dear Ms. Browner:

This letter is written on behalf of the members of the National Petroleum Refiners Association. NPRA represents a large diversity of oil industry interests including large and small independent refiners as well as large integrated refiners, many of whom also act as blenders, importers, and distributors. We have worked cooperatively with the Environmental Protection Agency throughout the extended reformulated gasoline rulemaking process with the intent of helping the Agency promulgate the most economic and workable program possible.

In a number of meetings with the EPA, including my recent meeting with you, NPRA, API, and member companies have raised concerns over NO_x mandates and other key RFG issues. It appears that your Agency may have underestimated our concerns. Since that meeting with you, we have learned that EPA now intends to include large, Year 2000 NO_x reductions in the final reformulated gasoline regulations due to be issued this December. As expressed in our written comments on this rulemaking, NPRA believes that the inclusion of NO_x reduction requirements would be a serious breach of the Reg Neg Agreement by EPA, a signatory to this landmark agreement. NPRA member companies worked in good faith during the regulatory negotiation process to develop cost effective reformulated gasoline requirements which would meet the environmental goals of the Clean Air Act, and provide refiners with flexibility to assure adequate production and distribution of gasoline. Imposing mandates for NO_x reductions will significantly reduce the flexibility which refiners perceived to be part of the Reg Neg Agreement. Some of our members who negotiated this rulemaking in good faith and have already begun to plan for its implementation may now find RFG production economically infeasible. Moreover, such an abrogation of the letter, as well as the spirit of the Agreement would frustrate our mutual interest in voluntary efforts to achieve future balanced environmental improvements.

While we recognize future reductions in NO_x may be necessary for some areas of the country, such as the Northeast, to achieve ozone attainment, there are many EPA programs

for stationary sources that will result in reduced NO_x levels at a much lower cost per ton than national mobile source NO_x reductions. Even without mandated NO_x reductions, Year 2000 reformulated gasoline on the average will result in significant reductions in NO_x . Mandating these reductions to all reformulated gasoline will unnecessarily limit individual refiner flexibility, increase the cost of production and reduce the potential for supplies.

The recent National Petroleum Council (NPC) report paints a dismal outlook for the U.S. refining industry, which will expend \$37 billion in this decade for environmental requirements compared to a \$31 billion book value. The NPC study does not even contemplate a cost for NO_x reduction for Year 2000 gasoline, which would require extensive new desulfurization capacity and billions more in capital investment.

On another related RFG issue, NPRA opposes any proposal which would allow foreign refiners to establish a baseline other than the CAA baseline. Allowing special treatment for foreign refiners will have anticompetitive impacts on U.S. refiners and, as in the case of the PDVSA request, may significantly increase the volume of higher emission RFG gasoline. Acceptance of this proposal would also be inconsistent with the terms hammered out in the intensive Reg Neg deliberations.

Finally, in your testimony of October 29, 1993 before the Subcommittee on Oversight and Investigations of the House Energy and Commerce Committee, you stated that, with respect to the December 15, 1993 promulgation deadline for this rule, EPA has "been assured by fuel providers [that it] allows adequate lead time for reformulated gasoline to be produced and distributed by the program's start-up on January 1, 1995." This comment fails to reflect very serious reservations, expressed by our members to your agency in written and verbal comments, on the critically short time left to finalize and implement plans to produce and distribute this new and unique product, and at the same time meet the new antidumping controls on conventional gasoline. While we firmly believe that our members will do all they can to assure adequate and timely supplies of reformulated and conventional gasoline, delays and lack of anticipated flexibility in the program will impede their ability to do so.

Our most recent submittal to EPA's public docket (August 13, 1993) reiterated our concern with delays and urged the Agency to provide maximum flexibility and options for compliance in the final rule. We included critical elements in this docket submittal and earlier comments that would assist our members in meeting the statutory deadline without compromising the quality of the reformulated gasoline program. Primary elements of concern expressed in our latest submittal were the need for:

- 1) utilization of industry standard test methods and their reproducibility limitations in setting enforcement tolerances and policy (without which industry will be forced to meet more stringent compliance specifications than agreed to in Reg Neg),
- 2) realistic performance standards based on a finished complex model,
- 3) a laboratory certification program to replace the EPA proposed independent sampling and testing program,
- 4) unrestricted early use of the complex model,
- 5) fungibility of all certified products under either the simple or complex models, and
- 6) a final rule consisting of regulatory negotiation principles with no special preference provided to the ethanol industry.

Many of these elements directly affect the ability of a number of our members to meet supply requirements anticipated for January 1, 1995.

Thank you for your attention to these very serious matters. We would be pleased to further describe or discuss our concerns with you and your staff.

Sincerely,



cc: Subcommittee on Oversight and Investigation of the Committee on Energy and
Commerce, United States House of Representatives
Senate Energy Committee
Senate Environment and Public Works Committee

NATIONAL PETROLEUM REFINERS ASSOCIATION

Founded 1902

SUITE 1000, 1899 L STREET, N.W., WASHINGTON, D.C. 20036
TELEPHONE (202) 457-0480

May 10, 1994

Ms. Mary Smith
Director, Field Operations and Support Division
United States Environmental Protection Agency
Mailcode 6406J
501 3rd Street
Washington, D.C. 20001

Dear Ms. Smith,

NPRA's Ad Hoc Motor Fuels Strategy Group met in Houston on April 20, 1994 in an effort to determine the most effective way to work together and with EPA toward a successful implementation of the RFG regulations. In response to your request at the RFG workshop, we have attempted to identify problem areas in the regulations and issues which require resolution immediately. Some such issues identified during our meeting are listed below and discussed in more detail in the attachment to this letter.

1. The prohibition on combining reformulated gasoline with conventional gasoline may severely restrict the supply system during the transition to reformulated gasoline.
2. The prohibition on adding nonoxygenate blendstocks to RFG, and the prohibition on adding oxygen to RFG except if the RFG is OPRG, decrease available gasoline supplies during the transition from summer to winter fuel.
3. Unless baselines are approved by September 1, 1994, refiners will not have sufficient time to adequately plan for 1995 gasoline production.
4. If registration numbers for refiners and importers are not issued in a timely fashion, there may be confusion during the initial transfers of RFG.
5. The Industry does not currently have in place an adequate mechanism to comply with all of EPA's product transfer documentation.
6. It may be too late for EPA to require the use of an EPA baseline submission form or a specific baseline submittal format.

7. Limiting refiners to a single independent sampler/tester is overly restrictive, and may result in disruptions during gasoline shipping.
8. EPA must clarify and understand the role of the gasoline volume obtained and reported by the independent sampler/tester. Failure to do so will likely result in confusion and disputes between industry and the Agency.

In past correspondence NPRA has pointed out to EPA that given the delays in promulgating the RFG regulations and the complexity of the regulations, we cannot be assured that the RFG program can be implemented without significant market disruption. The uncertainty and new requirements of the renewable oxygenate program increase the level of our concerns. We urge EPA to be prepared to deal with initial problems and we seek your cooperation in our efforts to minimize potential disruptions. NPRA proposes to establish an RFG hot line for industry to seek answers to questions about the regulations and to serve as a mechanism for identifying problem areas. NPRA will keep EPA and DOE informed on problem areas and requests that EPA assist us in answering questions.

NPRA believes the above issues are critical and deserve immediate attention in order to avoid further confusion and to assist in the initial start-up of this very complex regulation. Some may require simple clarification and by their noncontroversial nature may be remedied through the direct final rule. NPRA requests an opportunity to discuss these issues in more detail at your convenience.

Sincerely,



Urvan R. Sternfels

URS/drm

Enclosure

cc: Carol Browner, Administrator, U.S. EPA
Mary Nichols, Asst. Adm., Off. of Air & Radiation, EPA

Attachment
RFG Issues Requiring Immediate Resolution

1. Prohibition on Combining RFG and Conventional Gasoline

§80.78(a)(10) of the regulation reads: "No person may combine any reformulated gasoline with any conventional gasoline and sell the resulting mixture as reformulated gasoline." This provision is likely to cause supply problems during the transition from conventional gasoline to reformulated gasoline at terminals and retail outlets serving covered areas. Reformulated gasoline delivered to a tank which contains any conventional gasoline will always become conventional gasoline. Strict compliance with §80.78 will require inventory in tanks at retail outlets and terminals to be entirely pumped out and "air dry" before reformulated gasoline is introduced.

There are no surplus tanks at retail outlets and product terminals. In fact, terminals serving both covered areas and attainment areas will be tankage limited as they reconfigure their storage to accommodate both products. A requirement to pump out old inventory will remove those tanks from service. This will reduce supplies during the transition period, probably leading to disruptions in the marketplace.

Mixing Simple Model RFG and conventional gasoline to provide for the introduction of RFG by December 1, 1994 will not cause air quality to deteriorate. In fact, pumping out tanks will cause significant VOC emissions. EPA must provide industry with assurance that combining RFG and conventional gasoline will be allowed as needed to accomplish the initial and future transitions from conventional gasoline to RFG.

2. Prohibition on Blending Oxygenates and Other Components with RFG

Current industry practice is to do some blending at terminals in order to correct off specification blends and to seasonally adjust blends in order to improve vehicle driveability. Specifically, as colder weather approaches, butane is added to summer grade gasoline remaining in tanks in order to increase RVP and improve cold start performance. In addition, the CAAA of 1990 requires those areas not in attainment for CO to use 2.7 wt% oxygen gasoline during part of the winter. At times it may be necessary to add oxygenate to finished blends already in terminals in order to arrive at the minimum oxygen content required by law.

§ 80.78(a)(5) says, in essence, that a refiner may add nonoxygenate blendstocks to RFG. §80.78(a)(6) says that no person may add oxygenate to RFG unless such RFG is designated OPRG. Since adding a nonoxygenate blendstock will generally require adding an oxygenate in order to maintain the oxygenate limits, this section makes it impossible for terminals (refiners) to enhance the starting characteristics of finished blends or to reach the minimum 2.7 wt% oxygen required for the CO programs on blends that are already in the terminals.

§80.78(a)(15) says that blendstock added to RFG must meet RFG standards. If a quantity of RFG is off specification, there must be the capability to bring that material up to specification regardless of whether the blendstocks meet RFG requirements or not.

If no person can downgrade VOC-controlled RFG to non-VOC-controlled RFG through light end blending or to upgrade non-OPRG to OPRG by oxygen addition, about the only option left is to seal the tanks and await the next summer season. Such an action would be extremely costly and would reduce potential gasoline supplies in areas served by the terminals.

3. Baseline Approval

In order to provide adequate time for planning and scheduling for 1995 gasoline production, refiners must have certainty on baseline parameters by September 1, 1994. Without this certainty, their ability to produce adequate quantities of RFG or conventional gasoline is in jeopardy. Therefore, NPRA suggests that if EPA is unable to confirm acceptance of a refiner's baseline submittal by September 1, 1994 or 30 days after submittal, if that is later, NPRA believes the refiner must be able to utilize the submitted baseline as verified by auditors for 1995 compliance whether or not it becomes the final approved baseline.

4. Registration Numbers

§80.76 requires producers and importers of reformulated gasoline to register by November 1, 1994 or three months prior to production or importation of reformulated gasoline, whichever is later, in order to be assigned a registration number by the EPA. §80.65 requires that RFG be at any location other than retail outlets and wholesale purchaser-consumer facilities by December 1, 1994. §80.77(j) requires that transfer documents include the EPA assigned registration number of both the transferrer and the transferee if they are a refiner, importer, or oxygenate blender.

The reality of distribution system transit times and turnovers requires that some reformulated gasoline be produced, transferred and transported as early as September, 1994. If registration numbers are not available by the date, refiners will be unable to comply with the above requirement. Furthermore, if independent samplers/testers do not have their registration numbers, refiners will not be able to comply with sampling and testing requirements.

To remedy this, NPRA suggests that EPA allow the industry to continue using their same transfer documents in which they identify each other by company name as they have in the past until January 1, when the reformulated program is in full swing and the EPA has issued all registration numbers.

5. Product Transfer Document

Section 80.77 contains the requirements for Product Transfer Documentation. According to this section, the transfer document must include the name and address of the transferor, the name and address of the transferee, and the location of the gasoline at the time of the transfer. This must be provided in addition to a complete description of the product being transferred.

Although this information appears to be straightforward, it may not be readily available under certain types of gasoline marketing practices. Gasoline is a commodity that is typically transported either by product pipelines or barge from the refinery to the supply area. The transportation network dictates which areas are served by which refineries.

A refinery owned by one company may agree to supply a competitor's terminal located in an area served by that refinery in exchange for supply of gasoline in another not directly served by its own refinery. These product trades may occur any number of times while the actual shipment of gasoline travels along to its destination.

Current pipeline transfer documents are either transferred electronically, faxed or manually delivered to the receiving terminal. This practice **must** be allowed to continue, and multiple transfers of title will have to be accommodated.

In the case of truck shipments, the sequence of physical custody of a truck load of RFG is from terminal to common carrier to retail outlet, but the sequence of legal title may be from the terminal to exchange partner to marketer to common carrier to retail outlet. There may be several "paper" transfers between multiple exchange partners prior to transfer to the marketer. The ultimate retail destination is often not known by the terminal operator. In addition, the terminal may be unattended, and all shipping documents are printed automatically as the truck is loaded.

Rather than generating a new document for each transfer of title, we suggest that only one document accompany a truckload of RFG. The original terminal would be listed as the transferor, and successive parties would add their respective names to the document upon transfer.

Alternatively, one document could be generated upon the physical transfer of the RFG between the terminal and the common carrier. The transferee would be listed as either the exchange partner, marketer, common carrier, or retail outlet, depending on the information that is available to the terminal at the time of transfer.

6. Baseline Submission Form

Baseline submissions are due by June 1, 1994. Many refiners are well into the process of developing, auditing and submitting baselines and, therefore, cannot be requested to utilize a form not yet available. NPRA believes that because of the lack of final forms and formal

procedures for baseline submittal. EPA should be flexible in accepting good faith baseline submissions as prepared by each individual refiner. Refiners should also be notified of this flexibility as soon as possible.

7. Single Independent Sampler/Testers

Some companies feel allowing registration of only one independent lab is too constraining particularly when it is coupled with the 30 day notification of change requirement. There can be occasions where it is necessary to switch labs quickly (i.e. inability of first lab to carry out contract, performance quality issues, product trading, etc.). Allowing registration of more than one lab per refinery would provide a secure contingency plan. Some refineries may want to utilize more than one lab during the year for their sampling/testing requirement. NPRA would propose that the EPA allow this, but EPA would still adhere to directing each lab to test up to 10% of the total batches sampled.

In product trading, the inspection company is mutually agreed upon. With only one inspection company approved for a facility, there is no flexibility for mutual agreement which may restrict trading possibilities.

8. Independent Sampler Volumes

At Section 80.65(f) of the reformulated gasoline rule, EPA has prescribed requirements for independent sampling and testing of produced or imported RFG or RBOB. Prescribed for both options offered in paragraph (1) of this section is the requirement for the independent sampler to collect a representative sample from each batch of produced or imported RFG or RBOB. At paragraph (3) EPA further requires that the independent sampler and tester obtain the assigned batch number, volume of the batch, tank identification number, date and time of RFG certification and independent sample collection, and the grade of the batch.

NPRA recognizes that certain information on storage tank and gasoline grade is necessary to confirm that gasoline sampled and tested by both parties are the same. However, we are concerned that EPA may not appropriately use the batch volume information as collected by the independent sampler and tester. We expect the independent sampler will report the total volume of gasoline according to the tank gauging tables pertaining to that tank. This batch volume is necessarily the produced batch volume and represents the batch blend as certified by the refiner or importer at the time of production and ready for shipment. In most instances, this batch blend or produced volume will not and can not represent the actual shipped or tendered volume of RFG or RBOB. The refiner or importer must ultimately report the shipped or tendered volume in its batch EPA reports and use this same volume in its compliance calculations.

The difference between the independent sampling and testing batch blend or produced volumes and the refiner's or importer's produced and shipped volume reported will most typically be the tank heel or gasoline remaining in the tank at the time of the subsequent

batch blend or import operation. In no situations will the batch volumes as reported by the independent sampler be less than the produced and shipped volume reported by the refiner or importer.

To prevent further confusion and to help ensure smooth implementation while maintaining environmental goals of the program, NPRA believes EPA must publicly acknowledge to all parties that the subject volumes are not necessarily the same. EPA should specify that:

1. Independent sampling and testing volume is the volume of produced or imported batches of RFG or RBOB.
2. Refiner and importer volume used for compliance determinations is the shipped or tendered volumes for certified batches, and
3. Refiner and importer volumes reported to EPA in batch reports is the volume specified in 2. above.

This clarification would be consistent with the attest engagement procedures found in sections 80.125 through 80.130 and provide improved clarity for those responsible for implementing the rules. This clarification would be helpful if included in EPA's direct final rule since it is considered to be EPA's intent and is noncontroversial.

EXAMPLE:

A refiner produces a batch of RFG into a tank and certifies the tank's volume as 100,000 barrels of RFG using approved test methods. An independent sampler/tester confirms the batch blend volume at 100,000 barrels and samples the tank for testing and reporting.

Subsequently, the refiner ships only 75,000 barrels from this tank. This refiner would report in required batch reports to EPA only 75,000 barrels and the same volume would be utilized to demonstrate compliance. The independent sampler/tester volume would not be adjusted based on shipments, but remain the produced volume of 100,000 barrels.

Following shipments, the refiner blends an additional 50,000 barrels on top of the remaining 25,000 barrels, yielding a tank volume of 75,000 barrels certifiable as RFG. The independent sampler/tester would confirm the new batch blend volume as 75,000 barrels and sample the tank for testing and reporting. The refiner would report the volumes shipped from this new batch.



NATIONAL PETROLEUM REFINERS ASSOCIATION

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February 11, 1994

Air Docket Section (LE 131)
U.S. EPA
401 M Street, SW
Washington D.C. 20460

U.S. EPA
Attention: Docket A-91-77
2565 Plymouth Road
Ann Arbor, MI 48105

Dear Sir or Madam:

The National Petroleum Refiners Association (NPRA) is pleased to submit comments in response to EPA's Notice of Proposed Rulemaking entitled "Regulation of Fuels and Fuel Additives: Standards for Deposit Control Additives". At the January 11, 1994 hearing, NPRA provided oral testimony which summarized our views and concerns related to this proposal. Our written comments are intended to expand upon our oral statement, rather than restate our comments, and to respond to questions raised by the Agency at the hearing. We urge EPA to give full consideration to our oral statement and therefore, for reference, we have included a copy of this testimony as Attachment A.

In our oral testimony, we requested that EPA grant the request for extension of the comment period for this regulation. In the absence of a formal extension of the comment period, NPRA is submitting these comments within the published comment period deadline. However, in view of the potential impacts of this regulation on our industry, the unanticipated complexity of the proposed rule and other fuel related regulations under review or recently finalized, NPRA requests that EPA give full consideration to subsequent comments filed by NPRA after the published comment period closing date. NPRA will try to highlight areas where supplemental comments can be expected.

NPRA again emphasizes our concern that the deposit control additive proposal is far more complex than needed to accomplish the goals of the program as specified in the Clean Air Act Amendments (CAAA). The CAAA simply specify that deposit control additives be used in all gasoline and that EPA determine a level of acceptable dosage. The Legislative history for this portion of the CAAA clearly states that the purpose of the regulations is to protect against degradation of engine emissions due to engine deposits. This goal would be accomplished by requiring that all gasoline be treated with detergent additives and does not require the extreme measures proposed to assure each gallon of gasoline will contain a specified level of additive protection.

The mechanism of deposit formation is relatively slow. Any change in engine cleanliness and therefore air quality impacts are slow and not catastrophic. Even the measurement tool for determining deposit formation tendency requires a 10,000 mile test, roughly a years worth of normal consumer driving. Because it is unlikely that consumers will consistently receive severe deposit forming gasoline, the impact of occasional severe gasoline batches will be minimal. Furthermore, the use of well additized gasoline will tend to reverse the adverse impacts of an occasional batch of severe gasoline. The extra tier of complexity introduced by EPA to address the concern over severe gasoline is extreme and an over complication to an already fragile system.

NPRA's oral comments focused first on timing of the proposed regulations. We urge EPA to give careful consideration to the implementation of the detergent additive regulation in view of the fact that the industry will be implementing numerous regulatory compliance initiatives with very little lead time. The complexity and costs associated with the recently finalized reformulated gasoline regulations will result in significant environmental benefits. We believe the addition of onerous detergent additive requirements, which provide little if any environmental benefit over that already being accomplished, run the risk of interfering with the implementation and smooth introduction of the reformulated gasoline program. The reformulated gasoline regulations are over two years late and the recent renewable fuels proposal, along with litigation likely to follow, leave the industry with little planning guidance. NPRA believes that the detergent additive regulation can be simplified while still realizing the intended environmental benefits and not interfering with other more beneficial regulations. Specifically the sampling and testing of gasoline should be eliminated from the rule.

Our oral comments focused on five areas: (1) Timing Issues; (2) Certification Issues; (3) Downstream Monitoring of Parameters; (4) Enforcement Strategies; and (5) Record Keeping. Our written submission will expand on these comments and attempt to respond to questions/issues raised at the hearing. Again we urge EPA to review our oral comments included as Attachment A.

Sincerely,



SUPPLEMENTAL NPRA COMMENTS

TIMING ISSUES

NPRA's oral testimony pointed out the need for additional time to comply with the proposed regulations in view of the concurrent regulatory requirements and the uncertainty of the industry's ability to fully comply with the interim program by January 1, 1995 and then again with the final program by January 1, 1996. Again we reiterate our concerns and point out that the CAAA appeared to recognize the potential difficulties in implementing these regulations by including the provision that industry utilize detergent additives by January 1, 1995 even if the regulations were not finalized. We again urge EPA to develop detergent additive regulations which provide for an effective detergent additive program, but also allow refiners sufficient time for full implementation. Consistent with the statute, the additive mandate could begin on January 1, 1995, but the full accounting, enforcement, etc., programs could be phased in on a reasonable timetable.

At the January 11 hearing EPA requested that industry suggest a compromise between the EPA proposed 120 day certification review period and the industry suggested 30 day period. NPRA believes that if EPA simplifies its overall detergent additive program additional resources will be available for the certification process. We again urge EPA to establish the minimum certification time period to allow new technology to enter the marketplace as soon as possible.

CERTIFICATION ISSUES

In general, we believe the question of separate certifications for octane grades and gasoline types (i.e., reformulated, conventional, oxygenated, etc.) should be left to the discretion of the refiner. EPA, in its preamble to the proposed rule, states that it is considering allowing specific grades of gasoline to be certified separately from the remaining pool of gasoline of a supplier. We strongly support the separation of different grades and products as an option to be exercised by the gasoline/additive blender. As EPA notes, premium grades may require a lower concentration of detergent additive to maintain the same level of deposit control. Hence, separation of premium from the rest of the gasoline pool for the purposes of complying with this rule may result in a cost savings to a refiner.

In the case of oxygenated fuel, we support the second option enunciated by EPA which would allow separate certifications of oxygenated and nonoxygenated fuel while maintaining the option of obtaining a single certification for both at the discretion of the refiner. This is particularly important for ethanol blends where prior research indicates that significantly more detergent may be needed. We refer you to a paper, SAE 90 2109, for further technical documentation on the impact of ethanol on detergent requirements.

EPA raised the concern that some volume of gasoline would be outside the parameter ranges of the certification fuel and should therefore be considered severe gasoline in terms of deposit formation. We again emphasize that on average fuels will be sufficiently additized and the small volume falling outside this range will not result in environmental degradation. We felt that the 65% selection was a constructive suggestion because it provided for greater than average protection while avoiding costly excess additization and its possible deleterious side effects. Furthermore, considering the severity of the test for certification (using the most severe of vehicle engine technologies under the most severe driving cycles) and the probability that many detergent blenders will use generic certification for all gasoline, the Agency has more than sufficient assurance that additive levels will be more than adequate to protect against possible greater deposit forming tendencies of severe gasolines. A single certification level has layers of conservative assumptions and therefore even the severe gasoline of concern to EPA is not likely result in any real increase in deposit formation.

EPA should recognize that future gasolines will tend to be more similar, with fewer batches approaching the severe level. Reformulated gasoline regulations, particularly when the complex model becomes mandated, will significantly restrict the parameter ranges of reformulated gasoline. Some volume that now has parameters close to or at EPA's severe range will be reformulated and the resulting parameters will likely be better than average gasoline today. Refiners will be forced to better plan equipment outages (which in the past may have accounted for some production of severe gasoline) to remain in compliance with reformulated gasoline requirements.

Anti-dumping regulations will assure that conventional gasoline does not deteriorate from past quality ranges. Furthermore, modifications initiated to produce reformulated gasoline will in some cases improve the quality of reformulated gasoline. For example, a refiner may install fluid catalytic cracking feed desulfurization facilities to reduce the sulfur content of FCC gasoline (one of the largest volume components). This will reduce the sulfur content of all FCC gasoline, both that used in reformulated and conventional gasoline. Thus EPA has yet another level of conservative assumptions built into the detergent additive program that provides further assurance that gasoline will be adequately additized. The 65% level for gasoline produced in 1995 and beyond is far more conservative than the 65% range for pre-1995 gasoline used to establish additive dosages for the detergent rule.

As pointed out in our oral testimony, we believe that detergent certifiers must be able to blend fuels from normal refinery components to assure the availability of timely supplies. At the hearing, EPA requested comment on how the agency can be sure that these fuels are representative of actual fuels in the market. As long as the fuels meet the parameters required for certification fuels, they should be adequate for examining the effectiveness of a detergent. The use of typical refinery blendstocks in constructing test fuels was typical of operations used to support the reformulated gasoline regulations and predictive models. We see no reason why EPA should now become concerned that these fuels do not represent true conditions.

Paragraph 80, 144(a)2 specifies that test fuels must be contained in new, sealed containers. Current testing facilities have tanks that are cleaned and reused for new batches of test fuels. The required use of new drums is unreasonable, expensive, would generate a lot of waste and runs counter to responsible conservation of resources and energy.

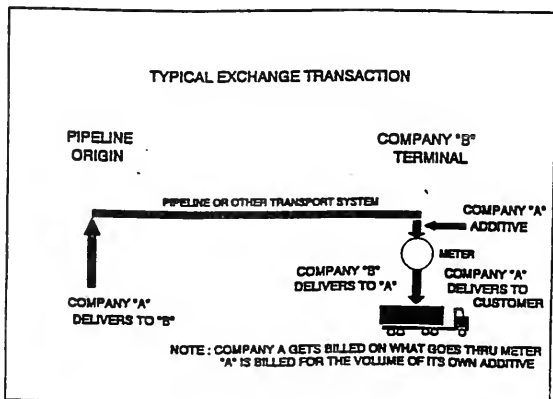
DOWNSTREAM MONITORING OF PARAMETERS

NPRA believes that our January 11 oral comments provide substantial justification for elimination of the terminal sampling and testing requirements. The refining industry, petroleum marketers and EPA had numerous discussions during the development of the reformulated gasoline regulations concerning the difficulties, costs and inability to conduct routine compliance sampling and testing at the terminal level. For this reason EPA adopted refinery gate certification for reformulated and conventional gasoline. We believe that EPA understood and was receptive to industry concerns and should do so again for the deposit control program.

ENFORCEMENT STRATEGY

NPRA's oral testimony strongly opposed the onerous weekly mass balancing, zero tolerance and liability provisions of the proposed enforcement program. Current gasoline terminaling practices used by the industry allow for efficient, cost effective and competitive distribution of gasoline to consumers. The onerous provisions set forth in EPA's proposal would disrupt existing relationships between suppliers and place unnecessary burdens and costs on the industry and eventually consumers.

The following figure illustrates an exchange transaction used at some terminals; however, note that there are many variations to these transactions.



The party who receives product at a truck rack routinely owns the additive and the equipment which injects it. The additive is injected upstream of the gasoline meter, so the customer is billed for both the gasoline and additive volume. Company "A" owes Company "B" the volume of product delivered through the meters, less the amount of additive injected.

Company "A" pays "B" a like volume at the pipeline origin less an adjustment to account for the additive. Since additive treatment rates are small and many rack locations are involved, these adjustments are rarely done weekly. A longer time period for balancing also allows terminals with smaller number of loads per month per additive system to have enough volume for closer accuracy.

In response to EPA's inquiry as to typical balancing practices, industry is surveying members and hopes to quantify industry practice in subsequent comments.

The proposed regulation requires a mass balance record for (a) each injector for automated locations with meters; (b) each storage tank for locations without meters; and (c) each batch for hand blending locations. Item (c) makes hand treating virtually impossible. Many companies sell branded gasoline to Distributors who require the carrier's driver to add appropriate quantities of detergent at the terminal or retail site. The drivers would be considered the blenders of record and would not have information available to produce a mass balancing record. A simpler process would be to have the driver sign a document for each batch specifying that a certain amount of additive was placed in Y gallons of gasoline.

In addition, the final rule should allow the detergent blender to choose the mass balance method most suitable to his system. Thus a facility with meters on each injector and total meters from the detergent inventory should be allowed to utilize the total meters for mass balance determinations. To disallow this flexibility would discourage operators from adding individual injector meters for additional quality control. NPRA has additional concerns in this area and intends to submit supplemental comments.

The requirement for 100% blending tolerance would be a near impossible task unless blenders targeted to significantly over-additize. New automated additive injector systems generally work by injecting additive in pulses. Typically one pulse of additive is injected for every 40 gallons of gasoline fed into a truck trailer. The automated system allows a driver to key-in the amount of gasoline he wants to lift, and the computerized system calculates the amount of additive needed, automatically adding it as the gasoline is loaded. However, it is possible that in the middle of a loading procedure the driver may need to shut down the blending operation. Since the automated systems are not designed to blend additive at a constant flow, a shutdown and restart could result in more or less than target additive being injected.

As mentioned above, in many circumstances the owner of the injecting equipment is not the terminal operator and is not present at the terminal location. Yet the owner of the injection facilities is responsible for maintaining the equipment. In the case of maintenance problems it is not always possible for the owner to respond immediately. Providing a tolerance for additive

concentration would allow an additive blender to remain in compliance when circumstances beyond his control result in an under-additized batch. Over the longer term, mass balancing records would provide assurance that on average gasoline is additized appropriately without the need for continual high overtreatment to assure that upsets do not cause noncompliance. We are aware of situations in California where operators set injection rates at 110% of the certified rate in order to assure compliance to California zero downward deviation allowance.

In Section 80.157(b) EPA proposes to require detergent tank gauging at the beginning and end of the mass balance period and using the difference in combination with the difference between additions and subtractions from the tank to determine actual detergent usage. To determine mass balance compliance the EPA should simply apply the metered outlet quantity of detergent (i.e., the subtractions from the tank) during the mass balance period and compare this to the gallons of gasoline treated during the period.

EPA appears to require tank gauging in combination with more accurate total meter readings. This approach compromises accuracy of the balances and imposes additional record keeping and recording requirements. A detergent blender's operation that monitors tank inventories against purchased and outgoing quantities should not be of interest to EPA and serves no purpose in the mass balance process. A similar problem is noted in the determination of gasoline and post refinery component gallonage during the mass balance period (also found in section 80.157(a) and (c)). NPRA may provide further comments in this area.

The proposal requires quarterly calibration tests for equipment and retention of calibration records. This calibration should be for measurement meters only and not for individual injectors. Also the quarterly calibration is more extreme than that required for gasoline metering and should be no more frequent than annual. Companies will be recalibrating on their own each time a problem is suspected.

NPRA does not believe that it is reasonable to expand liability to those who unknowingly use and then perhaps transfer under-additize gasoline or to those who transfer product which is later under-additized. A gasoline marketer who sells to distributors has no control of the product after it leaves the terminal.

RECORD KEEPING

The Proposed Regulation requiring mass balancing records to be kept for five years is inconsistent with the government's paperwork reduction policy. This policy requires that collected information not be held for more than three years. NPRA recommends that the time period be reduced to two years as is the standard for CARB certification. Two years is sufficient for inspections of mass-blending facilities.

The proposed regulation requires that each mass balance record must be maintained at the blending facility together with the product transfer documents of the base gasoline, post refinery component, and detergent that were blended together and were the subject of the mass balance

accounting record. This requirement would require massive amounts of paper to be saved, sorted, and collated for each balancing period. The actual physical transfer of documents should not be required. EPA should allow a company to compile relevant information and perform the balancing at a central location through electronic media. A summary report of the process can be sent to each blending location for follow up. The detailed information can be obtained from electronic media and made available to EPA at the time of an audit.

TECHNOLOGY

Spill, RFG rules promise trouble for U.S. pipelines

Warren R. True *Pipeline/Gas Processing Editor*

The effects of current and impending governmental regulations on U.S. pipeline operations occupied much of April's API Pipeline Conference in Houston.

Entire sessions were devoted to ramifications of the Oil Pollution Act of 1990 and governmentally mandated rules for reformulated gasoline.

Other papers discussed how the U.S. Federal Energy Regulatory Commission may regulate oil-pipeline rates in the future and what issues individual state legislatures may be examining.

If pipeline operators weren't hearing what governments planned, they were hearing what their own industry wanted them to do, mostly in the form of standards, such as API 2610 for terminal and tank facilities, or recommended practices, as for ensuring crude oil quality at terminal and tank sites.

OPA90 rules

C. G. Broussard, Shell Pipe Line Corp., Houston, reviewed recent actions by federal agencies to implement the Oil Pollution Act of 1990, how in some instances the industry has reacted to those actions, and what they may mean if carried out.

From the pipeline operating industry's point of view, she said, major elements of the act include the following:

- A comprehensive federal liability scheme
- A single, unified federal fund for response costs and claims

- Stronger federal oversight and control of oil spills
- Revision to response planning requirements
- Tougher criminal, civil, and administrative penalties
- No pre-emption of state laws addressing oil spills.

The various federal agencies that have become responsible for implementing the act are: Environmental Protection Agency (EPA), U.S. Coast Guard (USCG), Department of Interior's Minerals Management Service (MMS), National Oceanic and Atmospheric Administration (NOAA), and Department of Transportation's Research and Special Programs Administration (RSPA).

Following is a summary of her remarks concerning contingency plans, damage and liability plans, and the future.

Contingency plans

In October 1993, the EPA issued a proposed rule to revise the current National Oil and Hazardous Substances Pollution Contingency Plan.

Broussard said the American Petroleum Institute responded to the proposed rule by identifying many parts which are inconsistent, impractical, or confusing.

For pipeline operators, the most burdensome of the proposed rule's requirements will be procedures and techniques for identifying, containing, dispersing, and removing oil and hazardous substances.

Both the EPA and the USCG will develop area con-

tingency plans in accordance with which owners and operators of pipelines and related facilities must act.

Further, land pipelines must certify to RSPA that they have reviewed applicable area contingency plans and have facility response plans (at, for example, a pipeline or pumping station) that are consistent with the area plans.

Although the USCG has drafted several area plans, the EPA has released relatively few.

MMS was delegated responsibility for issuing regulations concerning financial responsibility for offshore facilities including state submerged lands and pipelines, determination of acceptable methods of financial responsibility, and the specification of necessary or unacceptable terms, conditions, or defenses.

On Aug. 25, 1993, MMS issued an advanced notice of proposed rulemaking.

In it, MMS extended financial responsibility requirements to all facilities in, on, or under navigable waters of the U.S. or subject to the jurisdiction of the U.S. Land pipelines which cross navigable waters, therefore, would be required to have a \$150 million certificate of financial responsibility to continue operating.

Broussard said that MMS' "strained definition of 'offshore facility'" and its interpretation of financial responsibility requirements "will have a far reaching impact on many pipeline companies as they try to obtain

the necessary evidence of financial responsibility (insurance, guaranty, indemnity surety bonds, letters of credit or self-insurance)."

Damages; facility plans

Another agency, NOAA, issued on Jan. 7, 1994, a notice of proposed rulemaking for natural-resource damage assessments that has been soliciting public comments in several workshops since.

The rule provides a lengthy process for determining "proper compensation" to the public for injury to natural resources. The process, said Broussard, may result in "enormous costs" to the pipeline industry.

Four federal agencies—USCG, RSPA, EPA, and MMS—were delegated the responsibility to draft rule outlining requirements to preparing and submitting to facility response plans to agency review and, in some instances, approval.

The USCG has jurisdiction over manne transfer facilities (e.g., docks and piping RSPA, over land pipelines; EPA, over nontransportation facilities (e.g., bulk terminal storage); and MMS for offshore pipelines.

The USCG, RSPA, and MMS have issued interim final rules. EPA, only a proposed rule. She said all four are expected to be out with final rules this month.

In RSPA's interim rule Section 194.103 requires an operator to identify which line sections in a response zone may cause significant

REGULATIONS

harm to the environment.

The rule then states that a line section must meet the classification if it is larger than 6 in., longer than 10 miles, and meets any of five criteria that have to do with the segment's spill history, its steel make up (electric-resistance welded), and its location relative to drinking water and environmentally sensitive areas.

If any line section in a given response zone meets the criteria, then the entire response zone is so classified. For pipeline operators to determine whether a segment qualifies means each segment in the zone must be evaluated on each of the five criteria. The consequent research and documentation requirements are extensive.

Pipeline operators have objected especially to the criterion that relates to environmentally sensitive areas, arguing that the definition is overly broad and vague. But while EPA works out the final rule, which may or may not resolve the problem of definition, operators must comply with requirements of an interim final rule.

RSPA's interim final rule also requires each facility's response plan to be consistent with the national contingency plan and each applicable area contingency plan.

But operators who operate systems in several states, he said, may be required to analyze facility response plans against several different area plans that, being either region specific, may be varying planning and response requirements.

Broussard also objected to RSPA's interim rule's requirement that each operator identify and ensure, by contract or other approved means, the resources necessary to remove a worst-case discharge and to mitigate or prevent a substantial threat of worst-case discharge. "But oil pipelines often extend over hundreds of miles. This requirement, therefore, becomes extremely onerous and, for remote locations, impossible to

achieve in the time frames outlined.

Pipeline operators depend on a myriad of contractors, response organizations, cooperatives, and others to remove and mitigate a spill. Identification of these resources that are available within specific time frames is unrealistic, she said.

More to come

Major regulatory issues that will affect the pipeline industry in the future, include:

- Storage tank liner requirements and secondary containment
- Natural resource damage assessment implementation
- Environmentally sensitive area delineation and protection
- Utilization of geographic information systems.

Broussard noted that, as federal agencies complete their rules and conclude numerous studies and area contingency plans mandated by the Oil Pollution Act of 1990, the industry can look for increasing cost and regulatory burdens.

Pipelines and RFG

The additional liabilities and documentation associated with reformulated gasoline (RFG) will make RFG more difficult to handle than such other grades handled in the past, according to Ralph L. Thompson of Colonial Pipeline Co., Atlanta.

Many in the industry, however, are still trying to interpret the RFG regulations, he said.

Fungibility and specs

To a common carrier, probably the most important part of the RFG regulations deals with fungibility because addition of RFG to current pipeline movements will strain existing tankage.

Moreover, building more tankage in congested distribution areas is difficult, at best, if not impossible.

Segregation of gasolines requires pipelines to use large tanks for small volumes. That causes, said

Thompson, a loss of tankage capacity which could result in less throughput and reduced shipper service. Fungibility of products enables pipelines to use large tanks for large volumes.

Simple-model RFG during 1995-1997 is fungible. Simple-model gasoline from one refinery can be commingled with simple-model gasoline from another refinery.

At the same time, gasoline produced by a refiner to meet the per-gallon specifications can be commingled with gasoline produced by another refiner to meet the average specifications.

Phase 1 complex-model gasoline during 1995-1997, however, must be segregated from the refinery to the retail outlet. This requires segregation of each batch of 1995-1997 complex model gasoline through the distribution system.

Complex-model gasoline produced for January 1998 and later will be fungible. Simple-model gasoline will drop out at the end of 1997.

Retormulated base for oxygenate blending (RBOB) is fungible, if the type and amount of oxygenate to be blended are the same. RBOB is the blendstock for reformulated gasoline, before ether (or alcohol) is added, in other words, RFG without oxygenate.

RBOB produced for blending with ethers from different refiners is fungible, as well. RBOB produced for blending with ethanol from different refiners is fungible, but RBOB for ethers is not fungible with RBOB for ethanol.

RBOB produced for blending with a refiner's designated oxygenate is segregated and cannot be commingled with any other RBOBs.

It's unclear at this time, said Thompson, how much RBOB will have to be moved through common-carrier pipelines.

The pending decision on the non-renewable oxygenate standard will affect pipeline movements of RBOB. For the present, he said, RBOB on Colonial will be segregat-

ed.

RFG specifications for the simple and complex model are on a per-gallon or an average basis; the refiner can elect to use the per gallon or average specification parameters.

Pipeline specifications for simple model RFG will be written with average specifications. The controlling parameters for the simple model are volatility, oxygen content, and benzene.

Colonial will handle complex-model RFG as a segregated batch until 1998, even though two batches of complex-model RFG can be commingled until then unless the two refiners' baselines are identical, a condition Colonial believes unlikely.

After 1998, as stated earlier, the complex model becomes fungible and replaces the simple model. At that time pipeline specifications for the complex model will be written with average specifications.

As for fungible specifications for RBOB, Thompson knew of no pipeline or refiner who had tackled that yet. Colonial had not, he said; at present, any RBOB movement on Colonial will be segregated.

RFG rules for handling conventional gasoline address increases in emissions. The requirements will not affect current pipeline specifications for conventional gasoline.

Thompson said EPA earlier proposed use of phenolphthalein as the required marker for conventional gasoline.

Field tests using phenolphthalein as a gasoline marker, however, suggest that it does not mix with conventional gasoline. Instead of remaining in the test batch of gasoline, the phenolphthalein was later found in water, on pipeline surfaces, and in other products.

In the final rule, EPA elected not to designate a gasoline marker until alternative markers had been tested. EPA has indicated that a final decision may not

be published until after the beginning of the RFG program in December.

Product codes

Thompson explained that representing the characteristics of each product grade with a two or three-character code is accomplished with pipeline product codes. Each new product grade will require a new product code.

The most significant change for pipeline operators, he said, will be the number of new product grades required to handle RFG and RBOB, and he cited Colonial as an example.

Currently, Colonial ships 41 different grades of gasoline. It plans to revise all gasoline product codes so that a code is assigned for each grade and volatility class.

A new code for each grade of RBOB, conventional, simple model, and complex RFG means a total 147 codes. The total number of possible gasoline codes if fungible batches are moved on a segregated basis is 269.

Transfer documentation

On each occasion when custody or title to any reformulated gasoline or RBOB is transferred, other than when gasoline is sold or dispensed for use in motor vehicles at a retail outlet or wholesale purchaser-consumer facility, the transferor will provide to the transferee documents which include the following information:

- Name and address of the transferor
- Name and address of the transferee
- Volume of the gasoline at the time of the transfer
- Location of the gasoline at the time of the transfer
- Date of the transfer.

Thompson said that these are only the first five lines of documentation and consist of information typically on pipeline tickets today.

In addition, the gasoline must be identified as the following:

- Conventional or reformulated
- Volatile organic com-

pounds (VOC) or non-VOC controlled

- Region I or Region 2
- Oxygenated or non-oxygenated
- Simple or complex
- Minimum or maximum standards for benzene, oxygen, and Rvp
- VOC and NOx emissions
- Identification as RBOB
- Refiner registration number
- Designation of oxygenate and amount for blending with RBOB
- Statements about combining RBOB with RBOB.

In the case of conventional gasoline, a statement is required concerning the mixing of conventional and RFG.

In the past, pipelines have used the product code on the ticket as certification that the product delivered to a shipper met all the specifications of the pipeline product specification sheet for that particular code.

To meet the EPA transfer documentation requirements for RFG, RBOB, and conventional gasoline, each product-specification sheet will include the required documentation. Colonial hopes, said Thompson, that EPA will allow the pipeline product code to represent the additional information required on the transfer document.

Operations

A certificate of analysis is required from the refinery before RFG is released into a pipeline.

In the future, Colonial will be working toward use of electronic data-transfer capabilities to speed the process of passing information from the refiner to the pipeline.

By receiving batch certification information in a timely manner, the pipeline will be able to accept the refiner's batch for shipment.

Pipelines will begin lifting RFG and RBOB from refiners 30 to 70 days before Dec. 1, the period length depending on the pipeline transit time from the refinery to the retail outlet.

Shippers will go through a transition period to convert both terminal and retail tanks from conventional to RFG.

RFG will have to be sequenced in blocks through the pipeline to avoid additional interfaces with conventional or distillate products. The different grades of RFG in a pipeline movement will be sequenced together.

As Colonial understands the regulations, said Thompson, RFG will have to be cut clean at delivery locations. This means a cut from conventional to RFG will be on 100% RFG gravity, a cut from RFG to conventional will be on first indication of gravity change.

This type of batch cutting will increase the loss of RFG to conventional gasoline. By reducing the number of interfaces at which RFG is next to nonconforming products, the amount of downgrading of RFG into conventional gasoline or transmix will be reduced.

Oversight programs

A quality-control oversight program is voluntary but essential, Thompson said. The regulations recommend a carrier have a quality-control oversight program in place to test Rvp, oxygen, and benzene on RFG and RBOB.

Pipelines already have established oversight programs. The testing on RFG and RBOB recommended by EPA will be included in current testing procedures.

The regulations specify the test methods to use for testing RFG. The EPA methods are in most cases elaborate laboratory procedures impractical in the field, said Thompson.

For an oversight program, pipelines will have to use alternate field test methods and correlate the test results with the approved test method.

EPA-recommended test methods and typical pipeline test methods will only differ on certain tests.

EPA and the pipelines will both use ASTM D5191 for

Rvp. The EPA will use D3606 for benzene while the pipelines will use D3606, D4815, D4420, and portable IR analyzers.

The EPA will use the GC-OFID method to test oxygen and allow D4815 until 1998; the pipelines will use D4815 or portable IR analyzers.

EPA will enforce rules for Rvp, oxygen, and benzene content. The agency will not take enforcement action, however, if a sample tests over the standard but within the tolerance downstream of the refinery.

Record keeping requirements for pipelines are the following:

- Product transfer documentation for all RFG, RBOB, or conventional gasoline.

- Data retained for any sampling and testing of RFG or RBOB include location, date, time, tank or truck identification for each sample; identification of who sampled and who conducted the test; results of tests; and for noncompliance, actions taken to stop sale and measure to prevent future non-compliance.

All records must be kept for 5 years.

Unanswered questions

Thompson said some unanswered questions remain:

- Will the EPA allow the blending of RFG-fuel oil mix, that is at their interface, into RFG in geographic areas where there is no conventional gasoline?

- Will the EPA allow blending RFG-conventional mix into conventional gasoline?

- Will pipeline product codes be sufficient transfer documentation to identify product characteristics, minimum and maximum specifications, and required statements?

- Will the EPA clarify the use of alternate test methods for oversight programs as a defense?

- Will the EPA clarify its position on product documentation during change-over transition periods?

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 (202) 682-8100



Charles J. DiBona
 President

June 21, 1994

The Honorable John Dingell
 Chairman
 Subcommittee on Oversight
 and Investigations
 Committee on Energy and Commerce
 Rayburn House Office Building, Room 2323
 Washington, DC 20505-6116

Dear Mr. Dingell:

This letter is in response to your June 17 letter to API and NPRA regarding implementation of the Clean Air Act requirements for reformulated gasoline (RFG). We will briefly summarize the petroleum industry's major concerns on implementation of the RFG rule. Individual companies may provide you with their own specific concerns as well.

API has been a full and active participant throughout the RFG rulemaking. We are committed to implementing the RFG program without delay and as smoothly as possible. However, the industry is in the position of trying to implement a program that has several major unresolved concerns: the renewable oxygenate mandate, foreign refiner baselines, and a host of implementation issues that specifically affect industry planning. Even though Congress provided the industry with over three years lead time, the refining industry now has only three months before RFG production will begin, and the industry still does not know what fuel it must sell on January 1, 1995.

This uncertainty can cause a number of specific problems. For example, the proposed renewable oxygenate mandate would add yet another layer of complexity onto the nation's supply and distribution system. Ethanol cannot be shipped by the existing pipeline distribution system, and will have to be brought to market by truck, barge, or rail car. Even in the case of ETBE (the ethanol-derived ether), the ethanol needed to make ETBE will have to be shipped from the Midwest to the ETBE plants (probably on the Gulf Coast) before being blended with the gasoline. The initial demand for ethanol would likely draw ethanol to the RFG markets from its current markets in the Midwest.

The increasing complexity of the proposed renewable oxygenate mandate would also tax the storage capacity of the supply and distribution system. Additional product grades mean additional storage requirements, and there simply is not enough time to design, permit,

The Honorable John Dingell
June 21, 1994
Page 2

and construct such tankage. We have attached API's testimony from Gary Edwards of Conoco (from the January 14 EPA public hearing) and Bob McCool of Mobil (from the May 12 Senate Energy Committee hearing) for your further information.

The new EPA proposal to allow foreign refiners to establish their own baselines also poses problems for the industry. This type of change in the treatment of imports will make it more difficult for U.S. refiners to forecast demand for domestic RFG, and will hamper the smooth implementation of the RFG program.

Moreover, both the renewable oxygenate mandate and the foreign refiner baseline proposal will undercut the emissions benefits of RFG that Congress intended. This is why the Sierra Club, other environmental groups, and state government organizations have opposed both proposals (see attached Sierra Club testimony on foreign refiner baselines). The latest DOE study confirms the lack of any greenhouse gas benefits from the proposed renewable oxygenate mandate.

Finally, the industry is concerned about the lack of written guidance being provided by EPA on such a highly complex program. The issues needing clarification are not minor ones, but are major concerns that directly affect the implementation of the RFG rule. For example, refiner baselines were due to EPA by June 1, but the industry never received crucial guidance (in the form of a direct final rule) that was needed for preparing their baseline submissions. Now refiners may be in the position of having to revise their baselines based on a tardy EPA direct final rule. We have attached copies of our correspondence with EPA on numerous other issues related to implementation of the RFG program.

We are also awaiting the release of a "question and answer" document that EPA has committed to providing by July 1. This document will address a number of critical interpretations of the RFG rule. We understand that this document will be voluminous because of the complexity of the RFG rule. EPA must release this by July 1 if the industry is to fully comprehend these clarifications before RFG production begins.

In closing, I would like to reiterate the industry's commitment to the implementation of the RFG program. Because of the short timing and high degree of uncertainty, however, there is no room for error by either EPA or the industry.

I hope this information has been helpful. As the process goes forward, we will provide you with supplemental information. Please do not hesitate to call me if you have any questions.

Sincerely,



enclosures

Testimony of

Gary Edwards

Executive Vice President

Conoco Inc.

My name is Gary Edwards and I am Executive Vice-President of Refining, Marketing, Supply and Transportation for Conoco.

Today I would like to address the burdens that the proposed ethanol mandate will impose on the nation's refining, supply and distribution system. My main point today is that this proposed gasoline rule will impose unnecessary expense and complexity all along the manufacturing and distribution system, what we call the value chain. The proposal will increase the costs of gasoline to consumers and will likely disrupt the efficient operation of the product distribution system.

I want to walk you through each step of this value chain, illustrating the problems raised by this proposal. I want to emphasize that while the petroleum industry strongly opposes the proposed ethanol mandate, we continue to believe that ethanol and ETBE have important roles to play in both the RFG and oxygenated fuels program. At Conoco, for example, we blended nearly 10 million gallons of ethanol in 1993, comprising 30% of our oxygenate uses. Conoco is clearly not opposed to the use of ethanol. To use the vernacular of this Administration, Conoco is "pro-choice," not anti-ethanol.

Now, let's begin our assessment of the value chain at the refinery. Refiners have to obtain feedstocks, upgrade those feedstocks and distribute products into the market place.

Refiners will need to obtain ethanol feedstock to produce the ETBE oxygenate blend required during the summer ozone season. We do not have an efficient distribution system to handle ethanol on the scale envisioned in this proposal. Substantial refining capacity for the RFG markets is concentrated on the Gulf Coast and California. From there refined product will be shipped by pipeline to the RFG markets in the Northeast, Midwest, and California. The ethanol production capacity, however, is concentrated in the Midwest.

Because ethanol cannot be shipped through the pipeline system, refiners will be scrambling to purchase adequate volumes of ethanol feedstock and to have those volumes shipped by barge or tank car.

The practical effect of this proposed mandate is to redistribute, in a very limited time-frame, the existing ethanol supply from its natural market in the Mid-West and Rocky Mountains to the Gulf Coast, California and consumers in eastern nonattainment regions. Feedstock costs and transportation fees will likely be at a premium because of the limited lead-time and the fact that current supplies are probably not adequate to meet the additional demand that this mandate will create.

Once we get the ethanol to the refinery gate, the problems continue. The immediate problem we face is the capability to produce ETBE. One assumption EPA seems to make is that roughly half of the affected refiners will manufacture ETBE with no additional investment. Unfortunately, Conoco's refineries will incur costs to make the conversion from MTBE to ETBE. I would frankly be surprised if 50% of my competitors are able to make the conversion from MTBE to ETBE with no additional equipment or other expenditures. At a minimum, investments in distillation, piping, and storage will have to be made to accommodate a shift to ETBE production in our facilities. These investments must be designed, permitted, and constructed while we simultaneously prepare for all of the other requirements of reformulation.

At the next step in the value chain, we encounter more problems. The ability to trade fungible barrels in transit is the mechanism that allows for the efficient delivery of gasoline from the refining center on the Gulf Coast to the demand centers of the East. This mechanism is important because it allows refiners to adjust to local fluctuations in supply and demand.

To appreciate the magnitude of the problems posed in the product distribution system, let's consider briefly the distribution of RBOB. We assume, and we think the Agency correctly assumes, that the industry will supply RBOB for the purpose of ethanol blending. But the requirements associated with RBOB are extremely burdensome. This proposal burdens RBOB suppliers with record-keeping, tracking and sampling requirements. One of the major problems we will face is the requirement that we enter into contractual relations with designated renewable oxygenate blenders in order to satisfy documentation requirements. These administrative requirements may well disrupt the efficient functioning of the industry's product distribution system.

For example, imagine trying to account for the oxygenate blended into a refiner's RBOB after a typical series of transactions. RBOB could easily be sold on exchange to another refiner who in turn sells it to a wholesaler who may yet sell it again to an ethanol blender. To hold the original refiner responsible for the actions of that blender is simply not feasible.

It is not clear to us how we would implement these fuel tracking and segregation requirements. I understand that this type of tracking system was rejected in the reg-neg agreement and opposed by even the ethanol industry when proposed in February 1993.

Compounding all the problems is the overriding concern that refiners will have extremely limited lead time to comply with this proposed mandate. The final rule stipulates that RFG must be made available at the terminals on December 1, 1994, which is one month sooner than anticipated. Given inventory turnover and product transport time, we must be manufacturing fuel that satisfies the reformulated gasoline requirements no later than September of this year. At best the industry has 9-10

months lead-time from when the final RFG rule was signed last month, even though Congress contemplated about three years based on the 1990 Clean Air Act. Even if EPA sticks to its extremely ambitious schedule and issues a final decision in June, the industry would have less than three months lead-time left to comply with this 11th hour mandate.

In closing let me reiterate that the industry is not opposed to ethanol. The proposed mandate will create inefficiencies in a very efficient value-chain. These concerns, as I've noted above, include the following:

- Feedstock costs, transportation costs, and motor fuel costs will rise as existing ethanol supplies will have to be re-distributed from their current natural markets.
- MTBE producers will be required to make additional equipment investments to convert to ETBE production.
- Enforcement provisions are complex and burdensome and require a level of paper tracking that will be virtually impossible to implement.
- Finally, the time given to satisfy this last minute mandate is, by virtually any standard, unreasonable.

This concludes my written remarks and I now turn the panel's presentation to Bill O'Keefe.

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TESTIMONY OF
THE AMERICAN PETROLEUM INSTITUTE
BEFORE THE SENATE ENERGY COMMITTEE
MAY 12, 1994

Introduction

I am Robert J. McCool, Executive Vice-President of Refining and Marketing for Mobil Oil Corporation. I am testifying today on behalf of API, the American Petroleum Institute, whose membership includes over 300 companies engaged in all aspects of the petroleum industry. API members represent 85% of the nation's refining capacity and directly market a substantial portion of the gasoline sold in the United States. API and its member companies were parties to EPA's regulatory negotiation, or reg-neg, for the clean fuel requirements of the Clean Air Act Amendments. Our members are in the process of making the investments necessary to implement these requirements. API appreciates the opportunity to testify before this hearing.

We are here today to express our strong opposition to EPA's proposed renewable oxygenate requirement for reformulated gasoline (RFG), which in essence mandates a government gasohol program. The proposed mandate goes well beyond EPA's statutory authority and represents an ill-advised government intrusion into the marketplace. We are also concerned that the proposal imperils the reg-neg process which government and industry have worked so hard to develop.

The proposal cannot be justified on environmental, energy security, or economic grounds. The mandate may, in fact, have adverse environmental consequences. Moreover, the proposal will impose significant costs. Finally, this proposal ignores the problems such a mandate would impose on the existing supply and distribution system. Mandating specific oxygenates will complicate product storage, blending, and distribution in a system that already includes oxygenates. My testimony today will briefly cover each of these points.

Before I begin, however, I would like to emphasize that while API strongly opposes the proposed mandate, we are not anti-ethanol. We believe that ethanol and ETBE have growing roles to play in both the RFG and oxygenated fuels programs. In fact, EPA asserts in the Regulatory Impact Assessment for the RFG rule that ethanol and ETBE will play important roles even without the currently proposed mandate. Mobil, for example, uses ethanol in those markets where it makes economic sense. Indeed, the ethanol industry presented a chart (Attachment 1) at the January 14, 1994

EPA hearing which showed that ethanol production capacity will double by 1996 without a final ethanol mandate. With such impressive growth projections, it would seem there is little need for a government-imposed mandate.

Lack of Legal Authority

Put simply, EPA does not have the statutory authority to issue this mandate. The RFG portion of the Act only grants EPA the authority to establish regulations which are intended to reduce VOC and toxics emissions. It established clear performance standards that RFG would be required to meet, providing refiners with the flexibility to meet them in the most cost-effective manner. Yet EPA would subvert this concept by imposing an oxygenate mandate requirement.

Furthermore, EPA itself acknowledged that it does not have the authority for this proposal when it stated in its Regulatory Impact Analysis for the final RFG rule that "EPA has no legal authority under the Clean Air Act to provide such a mandate for ethanol." Yet the same day that the RFG rule was released, EPA also released this proposed mandate that ignores the Agency's own legal analysis.

In fact, nothing in the legislative history of the Clean Air Act Amendments indicates any Congressional intent to allow EPA to mandate specific oxygenates. When Congress adopted the RFG requirements for oxygenates, it did not single out renewable oxygenates for special treatment. The two percent oxygen requirement contained in the Act did not specify any preference for a particular type of oxygenate. The legislative history is also clear that the RFG requirements were to be oxygenate-neutral.

EPA should abandon its proposed mandate and concentrate instead on implementing cost-effective, science-based environmental standards, not the method to be used in meeting those standards.

Undermines the Reg-Neg Process

The proposal also undermines the reg-neg process that was used to reach agreement on the RFG rule. The regulatory negotiation law, as I understand it, is an effort to develop regulations through consensus building and not through an adversarial process that results in lawsuits. This objective is severely undercut when the negotiated rule is rewritten after it is adopted, in a manner which clearly favors one of the negotiating parties.

At EPA's invitation, all involved parties--including the oil industry, the ethanol industry, consumer representatives, and environmental groups--participated in good faith in the regulatory negotiation process. During the negotiations, the oil industry made significant and costly concessions, including accepting provisions in the final rule beyond those required in the Clean Air Act, in order to reach consensus and achieve the benefits of reg-neg. These benefits include 1) developing requirements on a

sound technical basis; 2) preserving valuable lead time; 3) achieving regulatory certainty; and 4) avoiding litigation. While all participants had concerns with some aspects of the results, each agreed not to contest a final rule that reflected the reg-neg agreement.

If the proposed mandate is adopted, it will demonstrate a total disregard for the reg-neg process by unilaterally abrogating this agreement to benefit one party--a party that participated in and agreed to the reg-neg requirements. There will be little reason for parties to engage in this arduous process in the future.

Lack of Environmental, or Energy Security Benefits at a Significant Cost

Contrary to EPA claims, the proposal will not produce any environmental or energy security benefits. In fact, numerous state and environmental organizations have opposed this mandate because their analyses indicate it lacks any environmental benefit and could have the potential for environmental harm. The Sierra Club, the Environmental Defense Fund, the California Air Resources Board, and NESCAUM, the trade association for the northeastern states, have cited the likelihood that the proposed mandate will worsen ozone problems and global warming. Even the Department of Energy, in a recent draft analysis, determined that the mandate would lead to increases in greenhouse gas emissions.

EPA also maintains that its proposal will enhance energy security by reducing oil imports. But this estimated reduction is at best trivial--a fraction of one percent of total imports. Put another way, EPA's estimate of 9,000 barrels of avoided imports is about the amount consumed in two minutes every day. Even this minuscule reduction is refuted by the Department of Energy, which estimates that the proposed mandate will increase oil use and energy consumption.

Even if EPA's estimate is correct, the economic costs of this import reduction will be huge. Using EPA's own estimates, the cost of the meager 9000 barrels a day of imported oil supposedly avoided would be over 140 dollars per barrel, or about nine times the current cost of crude oil.

Independent economic analyses of the proposed mandate confirm the lack of any benefit to the U.S. economy. The organization Resources for the Future, in a February 1994 paper, concluded that "employment will be redistributed rather than created" by the proposal. Professor James Sweeney, who is chairman of the Engineering-Economic Systems Department at Stanford University, examined the proposed mandate at the request of API. Professor Sweeney calculated that the economic cost of the mandate would exceed \$350 million per year, and would therefore tend to reduce jobs. He also confirmed that the proposal did not improve air quality, leading him to conclude that the proposal is "singularly devoid of benefits, yet imposes substantial costs on society." We have provided copies of these and other studies to the Committee as part of our testimony, and we would appreciate the Committee's assistance in re-opening the EPA docket so these significant new analyses can be reviewed and considered.

Logistical Problems & Industry Uncertainty

Finally, the proposed mandate prolongs the uncertainty about what the final RFG requirements will be. The petroleum industry already faces a tremendous challenge in implementing the RFG rule. Refinery modifications, proliferation of product grades, increased storage needs, product distribution system changes, and product segregation requirements are just a few of the demands that the industry must address in the few remaining months before the RFG production begins this fall.

For example, ethanol cannot be shipped by the existing pipeline distribution system, and will have to be brought to market by truck, barge, or rail car. Even in the case of ETBE, the ethanol needed to make ETBE will have to be shipped from the Midwest to the ETBE plants (probably on the Gulf Coast) before being blended with the gasoline.

We are dismayed that EPA is not more sensitive to the leadtime and logistical problems imposed by this proposal, given the start-up problems encountered last Fall with the far less complex and far more certain low sulfur diesel rule. This proposal will affect one-third of the gasoline produced--a program that dwarfs the low-sulfur diesel program in its impact and complexity.

However, given the mandate proposal, the RFG program remains incomplete. The industry still does not know what fuel we must sell on January 1, 1995. Even if EPA manages to issue a final rule in June, the industry would have less than three months before RFG production begins.

Summary

In closing, I would like to reaffirm the petroleum industry's commitment to the RFG program and its smooth implementation. It is in everyone's interest that the RFG program be successfully implemented so that its environmental benefits will be fully achieved. However, our ability to prepare for this program is being seriously undermined by the Administration's constant re-opening of important issues related to the RFG program that benefit narrow special interests.

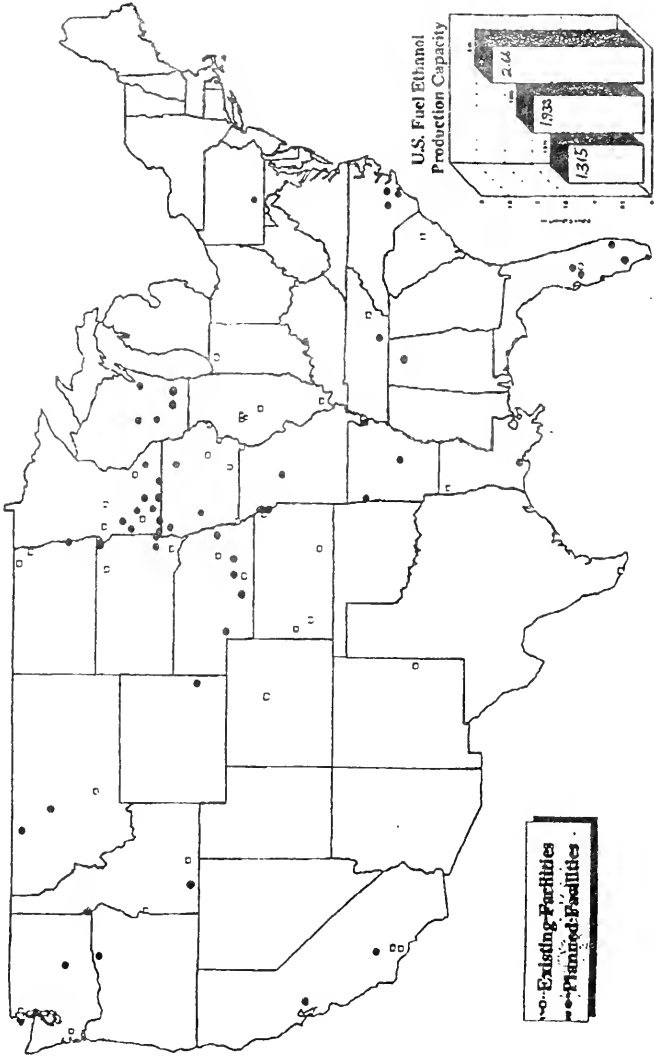
To summarize our points, the proposed mandate:

- Is well beyond the scope of EPA's statutory authority, and if implemented, will undoubtedly lead to litigation.
- Calls into question the credibility of future reg-neg activities.
- Will not benefit the environment.
- Will not enhance energy security.
- Will increase consumer costs.
- And will be extremely complex to implement.

For all these reasons, EPA should abandon the proposed mandate and keep the final RFG program oxygenate-neutral as required by the Clean Air Act.

Attachment 1

United States Ethanol Production Facilities



January 1994

Source: Gist-brocades, Charlotte, North Carolina

ATTACHMENT

American Petroleum Institute
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Washington, D.C. 20005
(202) 682-8240



1

G. William Frick
Vice President
Health, Environment and Safety

January 13, 1994

Ms. Mary Smith, Director
Field Operations and Support Division
U.S. EPA
401 M Street, S.W. (EN-397F)
Washington, DC 20460

Dear Ms. Smith:

API has appreciated the opportunity for constructive interactions with you and your staff on fuels enforcement issues. Based on answers to questions in the November 1993 *Enforcement of Volatility Regulations, Questions and Answers* document, our conversations, and the discussion of EPA's reformulated gasoline enforcement policy in the preamble to the final RFG rule, we believe that EPA's enforcement policy requires further clarification before the beginning of this summer's Phase II RVP season.

We need clarification of EPA's RVP enforcement policy in light of the answers in EPA's November 1993 *Enforcement of Volatility Regulations, Questions and Answers* document. On page 47 of that document, in the answer to question 21, EPA states:

that it will take enforcement action only when it measures the RVP of the gasoline at more than 0.3 psi RVP greater than the applicable standard, provided that the responsible party measured the RVP at or below the standard.

The issue in need of clarification arises from this answer's reference to "the responsible party." Our understanding is that EPA is referring only to refiners in this instance, not downstream parties. It is our understanding that EPA is not including downstream parties here because, as reflected in the answer to question 22 on pages 47 and 48 of the same document, EPA states that downstream parties may accept the gasoline as long as the downstream party's oversight testing does not indicate that the gasoline is above the standard plus the enforcement tolerance.

We believe that the above interpretation of EPA's enforcement policy is correct based on our conversations with you and your staff. Based on those conversations, the following is our understanding of EPA's RVP enforcement policy for conventional gasolines, and the Phase II RVP program:

Page Two

1. Refiners may ship conventional summer gasoline (or simple model VOC-controlled RFG) provided that the refiner has tested the RVP of the fuel to be not greater than the RVP standard and has the appropriate documentation of the RVP test result.
2. Any subsequent downstream RVP analyses showing a result not greater than the standard plus the 0.3 psi enforcement tolerance would not trigger an enforcement action. The only point within the distribution system where an RVP test must show a result not greater than the standard is prior to release at the refinery. The refinery's analysis is thus considered the benchmark for certification of compliance.
3. Any RVP test result for conventional summer gasoline (or simple model VOC-controlled RFG) downstream from the refinery that does not exceed the standard plus the 0.3 psi enforcement tolerance would be an element of defense for the party conducting the testing. For example, for conventional gasoline distributed this summer in the North, a party with a test result greater than 9.0 psi but not greater than 9.3 psi could use this RVP test result as an element of defense.

Furthermore, based on the discussion of enforcement tolerances in the preamble to the RFG final rule, we believe that points 1-3, above, also accurately reflect EPA's enforcement policy for the RFG program. In the preamble to the final RFG rule, EPA clarified that:

EPA intends to withhold prosecution of downstream parties such as pipelines and terminals, where proper sampling and testing by the downstream party shows that the product exceeds [the] standard but tests within the tolerance set by EPA, and where there is no reason to believe that the party caused the gasoline to exceed the standard. ... no enforcement action will be brought if the sample is over the standard, but within the tolerance.

Sections VII.B.3. and VII.B.4.

Because of the critical importance of this issue to the industry for the Phase II RVP season, we need written confirmation that this interpretation is correct. Moreover, because pipeline shipment cycles for Phase II RVP gasoline will begin shortly, a prompt reply is needed. Please call Bob Greco at 682-8565 if you have any questions.

Very Truly Yours,



G. William Frick

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 4 1994

OFFICE OF
AIR AND RADIATION

G. William Frick
American Petroleum Institute
1220 L Street, N.W.
Washington, D.C. 20005

Dear Mr. Frick:

Thank you for your January 13, 1994 letter requesting clarification of certain enforcement issues relating to the RVP test results required for distribution of conventional gasoline. Specifically, you have asked for clarification regarding our policy of taking enforcement action only where EPA measures the RVP of the gasoline at more than 0.3 psi greater than the applicable standard, provided that the "responsible party" measured the RVP at or below the standard. Your understanding is that the term "responsible party" refers only to refiners, and that parties downstream from the refiner may accept and distribute gasoline as long as their oversight testing does not indicate that the gasoline is above the standard plus the 0.3 psi enforcement tolerance.

We agree that parties downstream from the refiner may accept and distribute gasoline as long as their oversight test results are within the 0.3 psi enforcement tolerance, assuming that the average of the refiner's test results is at or below the standard. A downstream test result that is above the standard but within the 0.3 psi enforcement tolerance would not trigger an enforcement action (assuming that the average of the refiner's test results are at or below the standard.) However, as you know, if EPA tests a product to be above the applicable standard plus the tolerance, all parties in the distribution chain will be presumed liable in accordance with 40 C.F.R. § 80.28 of the volatility regulations. In this case, a party downstream from the refiner that is presumed liable for the violation would be able to satisfy the test element of its defense if its test results are within the 0.3 psi tolerance. A refiner, of course, would not be able to satisfy the test element of its defense to a downstream violation unless the average of its test results is at or below the applicable standard.

An EPA test result of gasoline sampled at a refiner's facility that is above the applicable standard but within the tolerance generally will not trigger an enforcement action, assuming that the average of the refiner's test results are at or below the standard. As indicated above, if EPA tests the

gasoline to be above the standard plus the tolerance at any facility, including the refiner's facility, it may bring an enforcement action.

In your letter, you also indicate your belief that the above stated policies accurately reflect EPA's enforcement policy for the RFG program. Although we do not have a formal enforcement policy for the RFG program in place at this time, we intend that any such policy generated in the future will be consistent with existing enforcement policies, including the RVP enforcement policy, and the cited statement in the RFG preamble.

I trust this adequately responds to your request. If you wish further clarification of these or any related issues, please contact Marilyn Bennett of my staff at (202) 233-9006.

Sincerely yours,



Mary T. Smith
Director

Field Operations and Support Division

ATTACHMENT

2

bruary 25, 1994

CLARIFICATIONS IN THE RFG FINAL REGULATIONS: ENFORCEMENT

Toxics

On page 6 of "Reformulated Gasoline/Anti-dumping Final Rule Enforcement Provisions Response to Comments," EPA states that the summer toxics model should be used for all VOC-controlled RFG. Does this apply to both the simple and complex models?

Should this be explicitly included in the RFG regulations?

For example, § 80.42(b)(1) states "[t]he following equations shall comprise the simple model for toxics emissions in VOC control region 1 during the summer period." For the purpose of calculating exhaust and evaporative VOCs in determining toxics emissions, § 80.42(a) defines "summer" as "The period of May 1 through September 15." Should the definition of "summer" in § 80.42(a) be replaced by the instruction to use the summer toxics model and calculate exhaust and evaporative VOCs for all VOC-controlled RFG?

Also, with respect to the complex model, § 80.45(e)(1)(i) states that "[s]ummer toxic emissions performance of gasolines in VOC Control Regions 1 and 2 shall be given by the following equations: ..." Summer and winter are repeatedly referenced in § 80.45(b). Does "summer" mean all VOC-controlled RFG? Does "winter" mean all non-VOC-controlled RFG?

12/1/94

These questions address §§ 80.65(a)(1) and 80.78(d).

Will terminals that serve at least one RFG covered area be required to have complying RFG by December 1, 1994?

May a terminal and/or truck distribute conventional gasoline to a retail station in a RFG covered area during December 1994, recognizing that the retail station tank must comply with the applicable RFG standards on January 1, 1995?

When does the independent analysis requirement, § 80.65(f), begin? Does it begin with RFG or RBOB batches produced on December 1, 1994 or does it apply to every RFG or RBOB batch produced in 1994?

Simple and complex model limits

For simple model RFG, § 80.42(c)(1) states that "[i]f the properties of the fuel being evaluated fall outside the range shown below, the model may not be used to determine the VOC or toxics performance of the fuel. ... RVP 6.6 - 9.0 psi" (emphasis added). Because RVP is not a term in the winter toxics model, non-VOC-controlled RFG or RBOB should not have any RVP limit. Will non-VOC-controlled simple model RFG or RBOB be certifiable if it has RVP greater than 9.0 psi? Will the winter toxics model determine the toxics performance of simple model non-VOC-controlled RFG or RBOB regardless of the measured RVP value?

For complex model RFG, § 80.45(f)(1)(i) lists an acceptable range for RVP of 6.4 - 10.0 psi. Section 80.45(f)(2) states that "[f]uels with one or more properties that do not fall within the ranges described in above shall not be certified or evaluated for their emissions performance using the complex emissions model described in paragraphs (c), (d), and (e)." (emphasis added). According to § 80.45(e)(2)(i), winter toxics emissions performance will be determined with the RVP set at 8.7 psi. Because the RVP value is a constant in the winter toxics emissions performance calculations, non-VOC-controlled RFG or RBOB should not have any RVP limit. Will non-VOC-controlled complex model RFG or RBOB be certifiable if it has RVP greater than 10.0 psi? Will the winter toxics model determine the toxics performance of complex model non-VOC-controlled RFG or RBOB regardless of the measured RVP value?

For conventional gasoline, § 80.45(f)(1)(i) lists an acceptable range for RVP of 6.4 - 11.0 psi. This upper limit should not apply to winter (non-Phase II RVP) conventional gasoline.

Enforcement of simple model RFG

Downstream from the refinery, EPA will enforce only the applicable min/max parameters (RVP and oxygen content max for VOC-controlled; ≥ 1.5 wt% oxygen content; 1.3 vol% benzene content), the product transfer and product segregation requirements?

RFG batch numbers

With respect to § 80.65(d)(3), must the batch numbers (the right-most three digits) be sequential without skipping any numbers, such as 001, 002, 003, 004, or may batch numbers be skipped such that the batch numbers reported are 005, 009, 015 (where the missing numbers could be other petroleum products)?

RFG Covered Area

Section 80.75(i) requires refiners to report annually to EPA on the identity of each covered area that was supplied with any averaged reformulated gasoline during the previous year. Section 80.68 summarizes compliance survey requirements for each

covered area which is supplied with any gasoline for which compliance is achieved on average. How many RFG covered areas are there?

Section 80.2(hh): "Covered Area - each of the geographic areas specified in § 80.70 in which only reformulated gasoline may be sold or dispensed to ultimate consumers."

Sections 80.70(a) through (i) list the nine mandated RFG covered areas. Sections 80.70(j)(1) through (15) list RFG opt-in areas. Does this suggest that there are 24 RFG covered areas?

Does § 80.70 mean that, for RFG opt-in areas, RFG covered areas are not one-to-one with ozone nonattainment areas as they are for the nine mandated covered areas?

Example (1): Section 80.70(e) defines the Philadelphia-Wilmington-Trenton RFG covered area as parts of four States and this is a single RFG covered area. The Washington ozone nonattainment area is an interstate ozone nonattainment area like Philadelphia-Wilmington-Trenton. Yet Washington, DC-MD-VA is not a single RFG covered area and is distributed among three RFG covered areas?

Example (2): there are two ozone nonattainment areas in Massachusetts. Yet, § 80.70(j)(7) states "The entire State of Massachusetts." Does Massachusetts have one or two RFG covered areas?

Example (3): § 80.70(j)(3) lists "The following Kentucky counties: (i) Boone; (ii) Campbell; (iii) Jefferson; and (iv) Kenton." Section 80.70(j)(4) lists: "Portions of the following Kentucky counties; (i) Bullitt; and (ii) Oldham." The Louisville ozone nonattainment area is Bullitt County (part), Jefferson County, and Oldham County (part). The Cincinnati-Hamilton ozone nonattainment area includes Boone, Campbell and Kenton counties in Kentucky. Shouldn't Jefferson County be included in the same RFG covered area as parts of Bullitt and Oldham Counties? Why doesn't Kentucky have just one RFG covered area as do the RFG opt-in areas in Maine, Maryland, Massachusetts, New Jersey, New York, Pennsylvania, and Texas?

EPA has defined two widely dispersed RFG covered areas: 28 counties in Pennsylvania in § 80.70(j)(10) and 28 counties and cities in Virginia in § 80.70(j)(14). Section 80.63 summarizes compliance survey requirements for each covered area which is supplied with any gasoline for which compliance is achieved on average. When EPA selects either of these two RFG covered areas for a compliance survey, does EPA really expect samples to be collected over such a wide area within a seven-day period on short notice?

Oxygenates

API believes that oxygenates should be permitted to be added to RFG, regardless of its designation as VOC-controlled or not and regardless of its designation as OPRG or not.

On (or near) page 20 of "Reformulated Gasoline/Anti-dumping Final Rule Enforcement Provisions Response to Comments," EPA states that oxygenates may be added only to non-VOC-controlled OPRG. However, § 80.78(a)(6) does not mention non-VOC-controlled:

No person may add any oxygenate to reformulated gasoline, except that oxygenate may be added to reformulated gasoline that is designated as OPRG provided that such gasoline is used in an oxygenated fuels program control area during an oxygenated fuels control period.

Should this restriction (non-VOC-controlled only) be in the final rule (i.e., §§ 80.69(f) and 80.78(a)(6)) or is it a mistake in the Response to Comments?

Perhaps EPA is worried that ethers and alcohols should not be mixed in VOC-controlled RFG. However, because this is prohibited by § 80.78(a)(8), it would not be necessary to edit § 80.78(a)(6) to include a restriction for non-VOC-controlled OPRG.

API believes that oxygenates should be permitted to be added to RFG, regardless of its designation as VOC-controlled or not and regardless of OPRG or not because:

- a little added oxygenates will not significantly degrade the complex model VOC or NO_x value;
- oxygen content may be as high as 2.7 wt% for simple model VOC-controlled RFG;
- terminals serving the New York City area should have the flexibility of "topping-off" the oxygen content of VOC-controlled RFG in September 1995 to create OPRG supplies;
- terminals serving the New York City area should have the flexibility of "topping-off" the oxygen content of VOC-controlled RFG in April 1996 to create OPRG supplies;
- adding oxygenates could "correct" off-spec RFG.

The New York City area's oxygenated gasoline control period begins on October 1 at retail. Therefore, RFG at 2.7 wt% oxygen content must be distributed by local terminals during September 1995 to NYC-area retail stations. Because other oxygenated gasoline programs in the Northeast do not begin at retail until November 1, 1995, the predominant RFG demand is for 2.0 wt% oxygen content during September. These terminals should have the flexibility to add an appropriate oxygenate to RFG supplies with less than 2.7 wt% oxygen content on hand during September and early October 1995 to create OPRG for the NYC area.

During September 1995, many terminal tanks will be changing over from VOC-controlled RFG to non-VOC-controlled RFG. Terminals should be permitted to add an appropriate oxygenate to RFG to create OPRG during this change-over period.

Similarly, the New York City area's oxygenated gasoline control period ends on April 30 at retail. Therefore, RFG at 2.7 wt% oxygen content must be distributed by local

terminals during March and April 1996 to NYC-area retail stations. Because other oxygenated gasoline programs in the Northeast end at retail at the end of February, the predominant RFG demand is for 2.0 wt% oxygen content during March and April 1996. These terminals should have the flexibility to add an appropriate oxygenate to RFG supplies with less than 2.7 wt% oxygen content on hand during March and April 1996 to create OPRG for the NYC area.

During April 1996, many terminal tanks will be changing over from non-VOC-controlled to VOC-controlled RFG. Terminals should be permitted to add an appropriate oxygenate to RFG to create OPRG during this change-over period.

Oxygenate and RBOB

Section 80.69(b), requirements for oxygenate blenders, seems to conflict with § 80.69(e), additional requirements for oxygenate blenders who blend oxygenate in trucks. Will § 80.69(b)(4) apply to oxygenate blenders who blend oxygenate in trucks? If so, then each truck compartment must be assigned a batch number and would the requirements of § 80.69(e) replace the requirements of § 80.69(b)(4)(i)?

Off-spec RFG

Suppose that a downstream party tests RFG and the test result indicates that the RFG does not comply with a min/max standard. What can that party do to correct the problem?

- A. Blend a non-oxygenate blendstock, retest and keep the RFG designation. This may not be an option.

No person may combine any reformulated gasoline with any non-oxygenate blendstock except:

- (i) A person that meets each requirement specified for a refiner under this subpart; and
 - (ii) The blendstock that is added to reformulated gasoline meets all reformulated gasoline standards without regard to the properties of the reformulated gasoline to which the blendstock is added.
- § 80.78(a)(5).

This alternative is apparently not feasible or practical. The party that conducted the downstream test will not likely want to assume the responsibilities of a refiner. Could this party blend a non-oxygenate blendstock to off-spec RFG without incurring the obligations of a refiner?

B. Add oxygenate, retest and keep the RFG designation.

This is apparently a feasible option for OPRG. However, this may not be an option for non-OPRG because of the restriction in § 80.78(a)(6), quoted above under "Oxygenates," that prohibits adding any oxygenate to non-OPRG.

C. Add RFG, retest and keep the RFG designation.

Is this a feasible option as long as VOC-controlled RFG/ethanol is not mixed with VOC-controlled RFG/non-ethanol oxygenate between January 1 and September 15, so as not to violate § 80.78(a)(8)? This option is mentioned in § 80.78(c)(1)(ii)(B).

D. Add the marker and change the designation to conventional gasoline.

Would this option require that the party assume anti-dumping responsibilities for this volume?

February 25, 1994

ERRORS IN THE RFG FINAL REGULATIONS: ENFORCEMENT

Definitions

Section 80.2(nn) refers to missing paragraphs (pp), the definition of an oxygenated fuels program control area, and (qq), the definition of an oxygenated fuels program control period. What are they? They should be included.

Simple model limits

Section 80.42(c) reads, in part: "Oxygenate content 0 - 3.5 vol %;" "vol" should be replaced with "weight" and "Oxygenate" should be replaced with "Oxygen".

RFG designations

Section 80.65(d)(2)(v)(B) states that all RFG and RBOB must be designated as meeting the NO_x standard on a per-gallon or average basis. This should be revised to require this designation only for RFG or RBOB certified using the complex model.

RFG release at a refinery

Section 80.65(e)(1) states that a batch of simple model RFG may not be released by the refinery prior to the receipt of a RVP test result. The RVP test result should not be required prior to the release of non-VOC-controlled simple model RFG and § 80.65(e)(1) should be revised accordingly.

Section 80.65(f)(4) provides for an exemption from the independent analysis requirements specified in paragraphs (f)(1) through (3). This exemption should also apply to paragraph (e).

Compliance surveys

Because the NO_x survey is only required for complex model RFG and is not required for simple model RFG, this restriction should also be added to §§ 80.68(c)(3), (c)(4)(ii), (c)(10), and (c)(13)(v)(L).

Section 80.68(c)(9)(ii)(B) incorrectly refers to "paragraph (c)(8)(i)(B)" when the correct reference is to paragraph (c)(9)(i)(B).

With respect to § 80.68(c)(13)(v)(G), the calculated VOC values for samples collected between June 1 and September 15 should also be reported.

With respect to § 80.68(c)(13)(v)(H), calculated VOC values should only be required for samples collected between June 1 and September 15. NO_x values should not be required after 1999 for samples collected between June 1 and September 15 because Phase II RFG NO_x summer surveys will not be required (per § 80.68(c)(3)).

Section 80.68(c)(13)(v)(L) states, in part, "beginning on January 1, 2000, the average NO_x emission reduction percentage." This should be revised to include Phase I complex model RFG and to exclude Phase II RFG samples collected between June 1 and September 15 because Phase II RFG NO_x summer surveys will not be required (per § 80.68(c)(3)).

RFG covered areas

Section 80.70(j)(15)(i) should be deleted because the Governor of Virginia did not include Smyth County in his RFG opt-in request to EPA.

Reporting/recordkeeping

Section 80.75(f)(2)(ii)(A) has two identical paragraphs, (1) and (2). One of these should be revised to read "gasoline which is designated as VOC-controlled and oxygenated fuels program reformulated gasoline".

Because the categories in § 80.75(f)(2)(ii)(A) only apply to oxygen credit trading, § 80.75(f)(2)(ii) should be revised to replace "paragraph (f)(2)(i)" with "paragraphs (f)(2)(i)(E), (F), (G), and (H)".

Product transfer documentation

In § 80.77(g)(2)(iii), "VOC-controlled" should be inserted between "case of" and "gasoline" because it is not required for non-VOC-controlled RFG.

Section 80.77(g)(2)(iv) should be edited to indicate that the VOC value is only required for VOC-controlled RFG.

Fourth Quarter 1997 and 1999

Refineries producing simple model RFG in 1997 will have to begin producing Phase I complex model RFG in the fourth quarter of 1997 in order that terminal and retail station tanks are turned over by 1/1/98. Likewise, refineries must produce Phase II RFG in the fourth quarter of 1999.

Section 80.40(i)(1)(i): "No refinery may be subject to a combination of simple and complex standards during any calendar year." A refinery producing simple model RFG for the first three quarters of 1997 (and perhaps the early part of the fourth quarter of 1997) would then switch over to Phase I complex model RFG production during the fourth quarter of 1997. Section 80.40(i)(1)(i) should be edited to permit this transition.

Section 80.40(j) defines early use of the complex model as "before January 1, 1998." At some point during the fourth quarter of 1997, refineries will begin producing Phase I complex model RFG using the generic 1998-1999 baselines, not the refinery-specific early use baselines. This paragraph should be revised to reflect this change-over.

Section 80.67(i) states that 1994 "average" RFG batches should be combined with 1995 batches for the purpose of compliance calculations. Sections 80.67 and 80.75(a) should be revised to permit Phase I complex model "average" RFG batches produced in the fourth quarter of 1997 to be combined with 1998 batches for the purpose of compliance calculations. In addition, permit Phase II "average" RFG batches produced in the fourth quarter of 1999 to be combined with year 2000 batches for the purpose of compliance calculations.

Sections 80.77(g)(2)(iv) and 80.78(a)(9) should be revised to change-over prior to January 1, 1998.

Prohibited activities

In § 80.78(a)(1)(v)(B), the reference to "below" should be replaced by "less than or equal to". In § 80.78(a)(1)(v)(C), the reference to "above" should be replaced by "greater than or equal to".

Preamble errors

The "Total VOC" values in the second half of Table IV-1 (Phase II Baseline Emissions) are incorrect for Summer Region 1 and Region 2; the incorrect values reported are 1306.48 and 1215.10 milligrams/mile. The correct values for Phase II are 1466.31 and 1399.07 milligrams/mile, which are (1) the sum of the Phase II values for nonexhaust VOC and exhaust VOC listed in this table and (2) the values included in Table 5 of § 80.45(b)(3).

In Section VII.E.3, EPA states the following:

The per-gallon minimum is included in order to cap the averaging range.

It is set at a level that is 2.5% less stringent than the per-gallon standard in the case of VOC, toxics, and NOx emissions performance.

(emphasis added).

"Toxics" should be deleted from this sentence because there is no toxics min/max standard for RFG complying with the toxics standard on average.

February 25, 1994

Questions & Clarifications--Anti-Dumping Regulations

General

1. The rule is overly restrictive on the following types of terminal operations:
 - a. Blending gasolines (e.g., midgrade from premium and regular). This practice would make a terminal a "refiner" subject to anti-dumping regulations (baseline, blendstock accounting, etc.)
 - b. Blending gasolines and blendstocks to bring off-spec conventional gasoline into compliance. This practice would also make a terminal a "refiner" subject to anti-dumping regulations.

The same problems exist in the RFG regulations. EPA needs to acknowledge that these are permissible terminal activities for conventional gasoline. We recommend that terminals could report to EPA off-spec adjustments after they occur (i.e., not have to wait for EPA approval).

2. What marker will be required for conventional gasoline? What are the implications to the enforcement of both the conventional gasoline and the RFG program if a marker requirement can not be implemented on January 1, 1995?
3. The petition and approval process for non-EPA approved analytical methods needs to be consolidated and expedited. API is compiling a list of such non-approved methods used by its members.

Individual Baseline Determination

4. The rules for domestic refiners who import gasoline in 1995 are not clear:
 - a. §80.91(b)(2) states that the compliance baseline is the CAA default baseline;
 - b. §80.101(f)(3) states that the compliance baseline is the refiner's 1990 aggregate baseline;

It was our understanding that (a) was the appropriate baseline. Implementation of (b) would be contrary to EPA's extensive efforts to prevent "gaming" of baselines, and we are unaware of this option ever being proposed.

5. The definitions of summer and winter gasolines for the purposes of Method 1 baseline establishment are overly simplistic. Section 80.91(d) defines a summer month as any month in which summer grade gasoline is produced, and winter months are defined as any non-summer month. How should refiners account for months in which both summer and winter grade gasoline are produced? In such months refiners should be allowed to count their summer samples toward their summer baseline and their winter samples toward their winter baseline.
6. The equation in §80.91(e)(4)(i)(B) is not clear. What does EPA mean by "blending RVP of oxygenate"?

Standards Applicable to Refiners and Importers

7. The regulations regarding limits on the complex model is contradictory. In the anti-dumping regulations, §80.101(f)(3) indicates that a refiner's baseline can exceed the complex model limits for conventional gasoline. This section is consistent with the anti-dumping requirements in the Clean Air Act. However, §80.45(f)(2) in the RFG regulations stipulates that conventional gasoline cannot exceed the complex model limits. The RFG regulations should be amended.
8. In §80.101(i), EPA requires the testing of every batch of conventional gasoline prior to its leaving the refinery. This requirement would preclude the on-the-fly blending of conventional gasoline, since no exceptions are allowed. We do not believe that EPA intended to interfere with methods for blending conventional gasoline, particularly since anti-dumping compliance is an annual average program. EPA should amend the rule to refer to "sampling" batches where it currently discusses "testing" batches.

Similarly, the recordkeeping requirements are unclear. §80.101(i)(2) allows refiners to analyze a "composite sample" from many batches. Yet §80.104(a)(2)(i) and §80.105(a)(5) require records for each batch. Sections 80.104 and 80.105 should be amended to be consistent with section 80.101.

9. EPA has deleted the OXCON term from the equation for determining compliance for exhaust benzene emissions under the simple model. In the 1992 SNPRM EPA proposed including the OXCON term as an option (§80.104(b)). In the 1993 SNPRM only the equation with the OXCON term was proposed (§80.101(c)(1)). Yet EPA inexplicably omitted the term from the final RFG rule (§80.101(g)(1)). Why did EPA make this change? The OXCON term should be restored to the exhaust benzene equation.
10. The applicability of standards in §80.101(c) is not clear. Do these provisions apply by refiner, regardless of how its refineries are aggregated? These provisions should apply to either individual refineries or aggregated refineries, depending on the refiner's choice of grouping refineries according to §80.101(h).

**Regulation of Fuels and Fuel Additives
Standards for Reformulated and Conventional Gasoline**

"Technical" Issues Re: RFG Certification

ISSUES REQUIRING CORRECTION

§80.42(c) Simple Model, Limits (p. 557)

- The 10 - 45 vol % range for aromatics should be made consistent with the range used in the Complex Model. As stated currently, it is more restrictive.
- The oxygenate content range of 0 - 3.5 vol % should be changed to an oxygen content range of 0 - 4 weight %. (Emphasis underlined.) The wider range recognizes the variability in the density of gasoline blendstocks that is inherent in translating the legal limit for ethanol in gasoline (10 volume %) from a volume basis to a weight basis.

§80.45 (b)(3) Complex Model baseline emissions (p. 560)

- Calculation of Winter toxics baseline for aldehydes and POM needs to be made consistent with the approach used in the Simple Model. The RIA describes the procedure used to determine the Complex Model winter baseline toxics emissions:
 - (a) The Complex Model database is used to determine corrected ratios of Toxic/VOC for each of the individual toxics.
 - (b) These ratios are then multiplied by the appropriate winter VOC baseline to determine the baseline emissions level for each of the five toxics.

While this approach is not incorrect for benzene and 1,3-butadiene, which are believed to be emitted as a constant percentage of the total VOC for both summer and winter, it is incorrect for formaldehyde, acetaldehyde, and POM, which are believed by EPA and others to be emitted at a constant level for both summer and winter. Note that the baseline values described in the RIA for the Simple Model for formaldehyde, acetaldehyde and POM were developed using the assumption of constant levels for summer and winter.

The correct baseline values for formaldehyde, acetaldehyde, and POM can be calculated by multiplying each of the individual winter Toxic/VOC ratios (shown in the RIA) by the baseline VOC determined by inputting the winter baseline fuel into the summer Complex Model for VOC.

§80.45(c)(1)(iv)(C) Linear Extrapolations (Page 568-569 for Phase 1) Part (5)

- Setting E300 to 95 when target fuel E300 is greater than 95 is incorrect for the VOC model. The E300* edge target is correctly set by Part (6) based on the equation based on aromatics. Part (5) is apparently confusing the overall CM E300 edge of 95 for fuels with an E300 between 95 and 100. The "flat line" extrapolation on E300* is described in part (iii).
- Part (13) incorrectly sets a $\Delta E300$ for high E300 levels and should be omitted. As described in Part (iii), E300* at high levels is a "flat line" extrapolation not a linear extrapolation. Part (14) should be revised to be "If the E300 level of the target fuel equals or exceeds 72 volume percent, then $\Delta E300$ shall be set equal to zero."
- These comments also apply to the Phase 2 E300 extrapolation (§80.45(c)(1)(iv)(D) Linear Extrapolations (Page 569-571 for Phase 2).

§80.45(c)(3)(i) (VOC Region 1 - Phase 1 evaporative VOC equations - Page 572)

- The sign on the first order RVP term in running loss equation should be "+":

$$\text{VOCRL1} = [0.00279 \times (\text{RVP}^2)] + [0.1096 \times \text{RVP}] - 0.7340$$

§80.45(c)(3)(ii) (VOC Region 1 - Phase 2 evaporative VOC equations - Page 572-573)

- Incorrect coefficients in the hot soak (first order RVP term) and refueling (first order RVP term) equations (change marked in bold and underlined).

$$\text{VOCHS1} = [0.006654 \times (\text{RVP}^2)] - [0.08094 \times \text{RVP}] + 0.2846$$

$$\text{VOCR1} = [0.004767 \times \text{RVP}] + 0.011859$$

NOx Model

§80.45(d)(1)(iv)(A) and (B) Linear Extrapolations (Pages 579-580)

- Table 7 incorrectly contains an E300 entry. Part (B) also references E300 in the text. The equations correctly do not include an E300 extrapolation.
 The $Y_{\text{NOx}}(t)$ equation for both the Phase 1 and 2 models is missing the term for the first order sulfur term for high emitters. The $Y_{\text{NOx}}(t)$ terms for both Phase 1 and 2 should be modified as follows (change marked in bold and underlined).

For Phase 1

$$\begin{aligned}
 Y_{\text{NO}_x}(t) = & 100\% \times 0.82 \times [\exp(n_1(\text{et}))/\exp(n_1(\text{b})) - 1] + \\
 & 100\% \times 0.18 \times [\exp(n_2(\text{et}))/\exp(n_2(\text{b})) - 1] + \\
 & \{[100\% \times 0.82 \times [\exp(n_1(\text{et}))/\exp(n_1(\text{b}))] \times \\
 & \{[(-0.00000133 \times \text{SUL}_w) + 0.000692] \times \Delta\text{SUL}\} + \\
 & \{[(-0.000238 \times \text{ARO}_w) + 0.0083632] \times \Delta\text{ARO}\} + \\
 & \{[(0.000733 \times \text{OLE}_w) - 0.002774] \times \Delta\text{OLE}\}]\} + \\
 & \{[100\% \times 0.18 \times [\exp(n_2(\text{et}))/\exp(n_2(\text{b}))] \times \\
 & \underline{\{0.000252 \times \Delta\text{SUL}\}} + \\
 & \{[(-0.0001599 \times \text{ARO}_w) + 0.007097] \times \Delta\text{ARO}\} + \\
 & \{[(0.000732 \times \text{OLE}_w) - 0.00276] \times \Delta\text{OLE}\}]\}
 \end{aligned}$$

For Phase 2

$$\begin{aligned}
 Y_{\text{NO}_x}(t) = & 100\% \times 0.738 \times [\exp(n_1(\text{et}))/\exp(n_1(\text{b})) - 1] + \\
 & 100\% \times 0.262 \times [\exp(n_2(\text{et}))/\exp(n_2(\text{b})) - 1] + \\
 & \{[100\% \times 0.738 \times [\exp(n_1(\text{et}))/\exp(n_1(\text{b}))] \times \\
 & \{[(-0.00000133 \times \text{SUL}_w) + 0.000692] \times \Delta\text{SUL}\} + \\
 & \{[(-0.000238 \times \text{ARO}_w) + 0.0083632] \times \Delta\text{ARO}\} + \\
 & \{[(0.000733 \times \text{OLE}_w) - 0.002774] \times \Delta\text{OLE}\}]\} + \\
 & \{[100\% \times 0.262 \times [\exp(n_2(\text{et}))/\exp(n_2(\text{b}))] \times \\
 & \underline{\{0.000252 \times \Delta\text{SUL}\}} + \\
 & \{[(-0.0001599 \times \text{ARO}_w) + 0.007097] \times \Delta\text{ARO}\} + \\
 & \{[(0.000732 \times \text{OLE}_w) - 0.00276] \times \Delta\text{OLE}\}]\}
 \end{aligned}$$

Toxics Model

§80.45 (e)(1)(ii) Summer toxics performance (Page 582).

- The Phase 1 summer toxics performance in VOC Region 2 base should be 47.58 instead of 47.59 (consistent with Table 5 on page 561). The revised equation should be (changes marked in bold and underlined):

$$\text{TOXICS2\%} = [100\% \times (\text{TOXICS2} - \underline{47.58} \text{ mg/mi})]/(\underline{47.58} \text{ mg/mi})$$

§80.45 (e)(2) Winter toxics performance (Page 584).

- The winter toxics (aldehyde) calculation needs to be corrected to use only 8.7 psi (similar to other winter toxics calculations).

§80.45 (e)(3) Year-round toxics performance (Page 587-588).

- This entire item appears to be incorrect and unnecessary. This section should be deleted because the compliance calculation for averaged standards (including toxics which is an annual average) is contained in §80.67(g) Compliance Calculation (pages 698-700).

Limits of the Model

§80.45 (f) Limits of the Model (Pages 599-601).

- This section fails to provide for legal reformulated and conventional gasoline winter RVP levels. The RVP range of 6.4 - 10.0 psi for reformulated gasoline (6.4 - 11.0 psi RVP for conventional gasoline) excludes legal winter gasolines. An exemption for higher RVP (up to 15 psi) winter gasoline must be added to the rule to accommodate legal reformulated and conventional gasolines that exceed 10-11 psi RVP maximum. In non-legal terms, a possible addition to this section might be:

(iii) The RVP range for reformulated and conventional gasolines in parts (i) and (ii) apply only to summer periods when VOC controlled gasolines are required. During the winter, 8.7 psi is used in the complex emissions model to certify reformulated gasoline and conventional gasoline for anti-dumping and the actual fuel RVP property is permitted to increase to legal limits.

Vehicle Testing to Augment the Model

§80.48(c) Augmentation of the Complex Emission Model by Vehicle Testing.

- The statistical analysis procedures for new parameter addition testing which are specified in this section need to be changed. The specified procedures require the assessment of interactions with all parameters in the Complex Model. This cannot be done using the seven "new parameter addition" test fuels specified at §80.49(a). The requirement to assess the interactive effects should therefore be dropped. The alternative, adding a sufficient number of fuels such that the interactions could be appropriately addressed, would dramatically increase the cost of the vehicle test option, making it even less attractive than it is currently.

ISSUES REQUIRING CLARIFICATION**Preamble, Section IV.G Future Model Revisions**

- Clarification is required regarding the exact criteria that EPA proposes to use to determine that "sufficient new information is available to warrant" the issuance of a "revised complex model" through a "formal rulemaking process."
- How would the timing for implementing a "revised complex model" be handled particularly with respect to the continued use of a company's or an industry's Augmented Complex Model? The language on p. 83 of the Preamble, p. 648 of the Regulations, and p. 271 of the RIA is confusing and contradictory on this point.

Preamble, Section IV.H Complex Model Performance of Simple Model Fuels

- Clarification is required on the exact calculation method (and assumptions) used to evaluate the performance of a Simple Model ethanol RFG with the Complex Model. It is unclear, for example, whether RVP was adjusted when evaluating winter ethanol RFG.

§80.45(c)(1)(iii)(A) and (B) Flat Line Extrapolations (Clarification needed) (Page 564)

- The entire description of the extrapolation edge targets and Δ values needs clarification. The attached Table 1 summarizes the property limits and extrapolation ranges and types for all the RFG specification models based on the EPA Complex Model spreadsheet equations.
- The last sentence (page 564) for each phase describing using the linear extrapolation model for E300* values greater than 94 is misleading, and may not be correct. E300* is an edge target which is capped by the appropriate equation (based on aromatics level) to a maximum of 94. The E300* cap is a "flat line" extrapolation and not part of the "linear" extrapolations described in part (iv) of the same section.

§80.48(f) Augmentation of the Complex Model with the results of Vehicle Testing

- The methodology specified in this section requires clarification. Specifically, the language defining "B" in sub-section (ii) references subsection (i) to refer to fuel properties. Subsection (i) refers to the unaugmented model and fuel parameter ranges, not to a specific fuel. We believe that the appropriate reference is the fuel described in the language which defines "A" in this subsection.

§80.48(h) of Regulations and Preamble, Section V.F, Augmenting the Models Through Testing, Duration of Augmentation

- Unless there is a minimum of three years between the time a revised model is promulgated and required use, the language in the Preamble and the Regulations is contradictory. In the case of a model revision wherein an augmentation is either entirely excluded or included in a modified form, the Preamble clearly states that the augmentation will be available for use "*...in its original form, in conjunction with the complex model for which the augmentation was issued...*" The Regulations state: "*The augmentation in question may only be used...with the complex emission model in effect as of the date of the manufacture of the fuels.*" For producers which meet EPA's production requirements, the augmentation is available for up to three years after a model revision. Thus, if the revised model leadtime is less than three years, the regulations require two different models to be used in conjunction with the augmentation, in conflict with the Preamble.

3/01/94

ATTACHMENT

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3

James E. Williams
Senior Associate

May 2, 1994

Ms. Mary T. Smith, Director
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401 M Street, SW (6406J)
Washington, DC 20460

Dear Mary:

Thank you for meeting with our representatives at your offices on March 24, 1994, to discuss the RFG benzene test tolerance. We appreciated you participating, even though you were in the midst of other urgent matters. While you were in the meeting we distributed and reviewed a proposed mechanism for establishing a new benzene enforcement test tolerance in response to EPA's call for a cooperative EPA-API round robin testing program. After you left the meeting, discussions continued with your staff, and with Janet Bearden of the Office of Air Enforcement for about 90 minutes.

As a follow-up to the meeting, I prepared the attached summary, annotating a copy of API's proposal with our understandings of the responses, resolutions, and action items associated with each numbered item. Also attached is a separate list of action items to be completed by EPA and API expeditiously.

During the March 24 meeting we emphasized the need to move ahead quickly given the December 31, 1994, deadline set by EPA. API noted it is essential that EPA and API reach full written consensus on the program in advance so that misunderstandings do not arise which could impair the ability of either API or EPA to meet the deadline. We also stated that the deadline for completion of the round robin may need to be extended to the extent that EPA might not meet deadlines mutually agreed to.

As noted in my message of Friday, April 22, we understand that your staff may be unable to provide an EPA response to our March 24 proposal until the division of responsibility between FOSD and the new Office of Air Enforcement is clarified. This delay is of great concern to us given the time line discussed on March 24 (see item 11 of the meeting summary).

API is ready to provide any assistance necessary to ensure that the benzene test program proceeds as quickly as possible.

Sincerely,

A handwritten signature in cursive script that reads "Jim Williams" followed by the initials "jrm".

cc: Janet Bearden

Benzene Enforcement Test Tolerance
API-EPA Meeting of March 24, 1994
Action Items

EPA

- Respond to API proposal; propose specific, quantitative lab qualification criteria.
- Clarify division of responsibility between FOSD and the new Office of Air Enforcement.
- Contact NIST regarding reference material.
- Check with EPA OGC regarding lab test result data confidentiality.

API

- Recommend ASTM D 3606-92 benzene-ethanol peak resolution procedures.
- Consider means of managing round robin since EPA does not wish to do so.

DRAFT prepared by API; Date 3-23-94
(Shared with EPA on March 24, 1994).
(API/EPA Action Items Are Shown in Bullets and Bold Italics)

Mechanism for Establishing Benzene Enforcement Test Tolerance

- Precision Statistic and Applicability:** The enforcement test tolerance established by this mechanism will be the reproducibility limit as defined within ASTM standard E 456-90a, Standard Terminology Relating to Quality and Statistics. The enforcement test tolerance established shall apply to all testing conducted downstream of refineries and import facilities.

 - *EPA asked if the limit would be based on a 1-sided or 2-sided test. EPA thought it should be 1-sided.*
 - *A copy of ASTM E 456-90 was left with EPA for them to review.*
- ILS Protocol:** The reproducibility limit shall be determined via an interlaboratory study (ILS) conducted in accordance with ASTM standard E 691-92, Standard Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method. Any exceptions shall be documented as to reason and technical justification and shall be mutually agreed to by API and EPA in advance of deviation from ASTM E 691-92.

 - *API and EPA must agree up front on what methodology/statistics will be used. It was agreed that this is essential for timely completion.*
 - *EPA needs some time to study the ASTM methodology before committing to it.*
 - *A copy of ASTM E 691-92 was left with EPA for them to review.*
 - *John Holley, Chief, Data Analysis and Management Section, was designated as the EPA contact person. Jim Williams was designated as the API contact person.*
- ASTM D 3606-92 Peak Resolution:** EPA shall define in chromatographic terms its statement in section 80.46(e)(2) that "Instrument parameters must be adjusted to ensure complete resolution of the benzene, ethanol and methanol peaks..." EPA and API shall agree upon and validate the specific measures to be taken. Clear instructions shall be provided to laboratories as part of the ILS protocol. These measures and instructions shall not constitute a departure from ASTM D 3606-92 methodology.

 - *EPA stated that the statement in section 80.46(e)(2) was taken directly from the API comments submitted to EPA on the RFG rule on August 14, 1992. The API comments were as follows: A recent Auto/Oil AQIRP round robin revealed that ethanol and methanol may cause slight interference with D-3606 when they are present in the blend (SAE Paper Number 920324). Instrument parameters can be adjusted to ensure complete resolution of the benzene, ethanol and methanol peaks, but these parameters are not currently described in ASTM D-3606. ASTM Subcommittee D02.04 on*

Hydrocarbon Analysis has a study group investigating improved gas chromatographic procedures which are not affected by the presence of oxygenates. These include a gas chromatographic method of measuring benzene, toluene, and xylene using equipment similar to that used in ASTM D-4815 oxygenate method as well as a revised version of ASTM D-4420. EPA should consider adopting one of these methods when they are completed and should participate in their development.

● *API will recommend to EPA specific measures to be taken.*

4. Laboratory Qualifications: Laboratories participating in the ILS shall meet qualifications specified in E 691-92 item 9.3. If a laboratory has all qualifications with the exception of familiarity with the test method but plans to run the method in 1995 and commits to become familiar with the test equipment and its operation prior to the ILS, that laboratory will be allowed to participate. Additionally, labs shall (1) demonstrate results within D-3606-92 reproducibility on a two-component qualification sample; (2) provide chromatogram(s) of runs including calibration parameters; and (3) demonstrate separation of ethanol and benzene peaks as defined in paragraph 3 above.

● *Most of the discussion centered on what objective criteria should be used to determine if a lab is qualified. Discussion focused on API's proposed Item 8, Reference Material, covering criteria for determining confirmation of instrument calibration. EPA suggested that a screening round robin could be conducted up front, and only the "best" labs from the screening round robin would participate in the actual round robin. API representatives pointed out that individual deviations were expected to be random, and therefore, a participating laboratory may not have the same result for subsequent runs. There was general agreement among all in attendance that this was the case.*

● *EPA viewed the round robin as documenting what is achievable using the "best labs", and not to document current practice of all labs.*

● *EPA will propose specific quantifiable criteria.*

● *API was concerned that there may not be enough time to do a screening round robin.*

5. Number of Laboratories Participating: A representative cross section of the population of qualifying laboratories must be included. The ILS participation goal shall be 25 to 35 laboratories. EPA's Ann Arbor motor vehicle emission laboratory shall be included; EPA shall have the opportunity to recruit up to 17 independent laboratories. API shall have the opportunity to recruit up to 17 refinery and pipe line laboratories.

● *EPA felt that it could not consider managing the program if a large number of labs were included.*

● *There was some uncertainty about the definition of refinery versus independent labs.*

● *API indicated that a larger number of labs would allow the program to continue even if a few labs dropped out.*

6. Cost Sharing: All participating laboratories will be asked to waive fees. In the event that

some selected independent labs are unwilling to waive fees API and EPA will share equally in paying fees billed at rates not to exceed normal commercial fees. EPA shall pay all costs incurred by EPA in participating in the ILS. API shall supply gasolines having benzene concentrations in the range of 0 to 1.5 vol% for EPA's use in selecting, packaging and distributing test materials for the ILS. EPA shall bear all costs of certifying, packaging, and distributing the reference material (RM).

● *EPA stated that it can not pay for those independent labs that are unwilling to waive fees.*

7. ILS Planning and Administration: EPA and API shall form a joint task group to plan and administer the ILS in accordance with procedures detailed in ASTM E 691-92. EPA shall have responsibility for actively managing the ILS according to ASTM E 691-92 procedures, including issuing the jointly developed protocol, packaging and shipping samples, communicating with laboratory ILS supervisors, monitoring progress, and receiving and inspecting data. EPA shall provide to API opportunity for input on key decisions regarding EPA's management of the ILS. API shall receive any and all laboratory data at the same time EPA receives such data.

● *EPA indicated that because of budget and manpower constraints, it would be very difficult for EPA to pay for or manage the program. As long as a specific protocol has been agreed to, EPA does not care to manage the program, especially if a large number of labs participate. If there are only 7 labs participating as EPA had originally proposed, EPA might reconsider.*

Confidentiality: Data shall be held in strict confidence by EPA. Data will not be released by EPA for either EPA or API analysis until all labs have reported their results. EPA shall assure that confidentiality is maintained so that the identity of laboratories providing a specific result or set of results is not disclosed. For data analysis purposes the results submitted by the various labs must be coded.

● *EPA was not sure if it could maintain confidentiality. EPA stated that generally, a company must show that it will be economically disadvantaged before EPA can maintain confidentiality of data submitted to the Agency. Otherwise, EPA is obligated to release the data if requested. EPA will get a clear interpretation from its legal counsel.*

8. Reference Material: A reference material (RM) certified by NIST (if possible) shall be used as a check standard to confirm instrument calibration prior to analyzing the ILS test materials. An RM test result within the current reproducibility documented for ASTM D 3606-92 (0.28 * measured vol% benzene) shall constitute confirmation of calibration. If the RM test result does not confirm calibration, the instrument shall be recalibrated; in no instance will a RM test result be used to adjust the instrument or test results.

The RM shall consist of two components allowing rapid preparation and certification according to a methodology acceptable to both EPA and API so as not to jeopardize timely completion of the ILS. Additionally, EPA shall be responsible for assuring that

the RM is readily available to laboratories for the duration of the federal reformulated gasoline program. ILS test results submitted by any laboratory shall not be discarded solely on the basis of that laboratory's RM result(s).

• *EPA will contact NIST to see what schedule they could meet regarding reference materials. EPA agrees that RMs are to be used only to check calibration, and not for actual instrument calibration.*

9. Test Materials: A range of commercial winter and summer gasolines containing not less than 1.5 wt% oxygen in the form of MTBE, ETBE, TAME or ethanol shall be used as test materials. The maximum benzene concentration shall be approximately 1.5 vol%. EPA shall be responsible for packaging and distributing the test materials.

• *There were no major points of disagreement from EPA.*

10. Deadlines: Deadlines for completion of the ILS testing phase, for statistical analysis of the ILS data and for announcement of the new benzene enforcement test tolerance shall be established by EPA consistent with time lines jointly established by EPA and API.

• *No comments from EPA.*

11. Time Line and Milestones: API and EPA shall jointly prepare and commit to strict adherence to a time line for completion of the ILS including milestones for the following activities and decisions:

- . Define RM.
- . Clarify EPA peak resolution concerns.
- . Determine & document D 3606-92 peak resolution procedures.
- . Finalize lab qualification criteria.
- . Reach full agreement on ILS protocol.
- . Distribute mutually agreeable ILS protocol.
- . Procure and package RM.
- . Nominate laboratories.
- . Distribute RM.
- . Deliver candidate test materials to EPA.
- . EPA selects and packages test materials.
- . EPA distributes test materials.
- . Commence ILS testing in laboratories.
- . EPA and API receive data from laboratories.
- . EPA review in-progress statistical analysis with industry.
- . Complete statistical analysis.
- . Announce new benzene enforcement test tolerance.
- . Announce effective date.

• *API noted that the first item would have to be completed by mid-April; the next three items by the end of April; the items through nomination of labs by the end of May;*

commence ILS testing in laboratories by mid-August; and EPA and API receive data from laboratories 60 days later.

12. Consequence of Missing ILS Completion Deadline: EPA shall provide for changing the effective date in the event that EPA fails to meet milestones for EPA action jointly set by EPA and API.

● *EPA saw no problems, provided those items for which EPA has responsibility are clearly specified.*

13. Dispute resolution: API and EPA agree to submit irreconcilable disputes concerning exclusion of data, statistical analysis and conclusions to binding arbitration as mutually agreed prior to the beginning of the ILS.

● *EPA indicated that it is not likely that EPA will make this commitment.*

Meeting Attendees:

API:

Joe Kaufman, Phillips
Betty Anthony, Amoco
Adam Schubert, ARCO
Jim McCann, Texaco
Jim Williams, API
Bob Greco, API

EPA:

George Lawrence
John Holley
Mary Smith (Part time)
Bruce Kolowich (By conference call)
Janet Bearden
Dave Kortum

WASHINGTON, D.C. 20460



MAR 31 1994

ATTACHMENT

4

Dear Concerned Party:

In the past, and prior to the implementation of a regulation, we have asked interested persons to submit questions concerning the manner in which EPA intends to implement and enforce the regulation. Subsequently, the questions are answered in a "Question and Answer" (Q & A) document prepared by EPA and distributed to all interested persons.

Accordingly, in anticipation of the January 1, 1995 implementation date for the reformulated gasoline (RFG) and anti-dumping regulations published on February 16, 1994 (59 FR 7716), we are requesting that interested persons submit questions concerning EPA's implementation and enforcement of these regulations. Please submit your questions by May 1, 1994, so that they may be included in a Q & A document. This document is expected to be completed by July 1, 1994, and will be automatically sent to you since you are on our mailing list of interested persons. (Note: Our mailing list was mostly derived from attendees of the RFG Workshop held in Washington, DC, on March 7-8, 1994. If you know of other persons who may not be on our list, but who may be interested in submitting questions or receiving the Q & A document, please feel free to pass along this notice).

If you have questions, please send them to:

Marilyn Bennett
Field Operations and Support Division (6406J)
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460
FAX: (202) 233-9557

If you require more information, you may contact Marilyn Bennett at (202) 233-9006, or Whitney Trulove-Cranor at (202) 233-9036.

Sincerely,

A handwritten signature in black ink, appearing to read "Mary T. Smith".

Mary T. Smith
Director

Field Operations and Support Division

American Petroleum Institute
1220 L Street, Northwest
Washington, D.C. 20005
202-682-8000



MEMORANDUM

DATE: May 2, 1994
TO: Marilyn Bennett, EPA
FROM: Bob Greco, API *Bob*
Subject: Questions for EPA Q/A Document

Attached are a list of questions related to the final RFG rule for inclusion in EPA's upcoming Q/A document. These questions represent a compilation from API and its members; some companies may choose to submit additional questions. Also, API may provide further questions as issues arise.

API appreciates your consideration of these questions, and we look forward to your release of the Q/A document by July 1. If you have any questions, please call me at (202) 682-8565 or Tim Hogan at (202) 682-8323.

May 2, 1994

CLARIFICATIONS IN THE RFG FINAL REGULATIONS

Technical corrections

Sections 80.128(e)(2), 80.128(e)(5) and 80.129(e) incorrectly refer to § 80.72, a reserved section; they should refer to § 80.69.

Simple and complex model limits

What is the consequence if a test result shows a value that is outside one of the ranges in §§ 80.42(c) and 80.45(f)(1)? Would it be a violation if a refinery batch report showed a value outside of one of these ranges? Would it be a violation if an EPA test result showed a value outside of one of these ranges?

Compliance surveys

Shouldn't page 4 of Dave Kortum's handout at the March 7 workshop be revised to read "First year: 120 surveys for 7 (not 9) RFG covered areas" because § 80.81(b)(1) exempts the Los Angeles-Anaheim-Riverside and San Diego RFG covered areas from the compliance survey requirements?

With respect to § 80.68(b)(2), what is the source for annual gasoline volume data by covered area?

When will EPA announce the value for ANSI₁₉₉₅? How can the survey plan for 1995 be submitted by refiners to EPA by 9/1/94 without knowing the value for ANSI₁₉₉₅?

When will EPA announce the value for ANSI₁₉₉₆? The final 1995 survey reports for oxygen, benzene and toxics may not be submitted to EPA until December 1995 or January 1996. How can the survey plan for 1996 be submitted by refiners to EPA by 9/1/95 without knowing the value for ANSI₁₉₉₆?

Section 80.67(a)(2) describes a compliance procedure for oxygen and benzene content averaging. If a refinery participates in a compliance survey, then § 80.67(a)(2) does not apply? Section 80.67(a)(2) would apply only if a refinery decides to average oxygen or benzene and does not participate in a compliance survey?

How many RFG compliance survey areas will there be in 1995? At the March 7 workshop, Dave Kortum said that the compliance survey areas will be the ozone nonattainment areas.

Shouldn't page 8 of Dave Kortum's handout at the March 7 workshop be revised by deleting "no" in "no tolerance applied" to read "Samples outside of max/min not used to obtain survey value for that parameter (tolerance applied)" because § 80.68(c)(6) reads "plus any enforcement tolerance ..."?

Could a refiner comply with a RFG standard on average without actively (e.g., financially) participating in compliance survey option 1 or 2? Does § 80.67(a)(1), or any other paragraph in the regulations, mean that a refiner, importer or oxygenate blender must actively (e.g., financially) participate in the compliance survey requirements in order to meet the RFG standards on average, with the exceptions for benzene and oxygen in § 80.67(a)(2), and, therefore, there would be no "free riders"?

Section 80.68(a)(3) describes a penalty for failure to carry out compliance survey option 1. Would this same penalty also apply to failure to carry out compliance survey option 2?

Would survey failures in 1999 result in Phase II ratchets in 2000?

Could survey failures prior to 1999 result in Phase II RFG ratchets in 2000?

With respect to § 80.68(b)(4)(ii), failure to conduct a simple model RFG survey would not result in a Phase I complex model NO_x ratchet because simple model RFG has been deemed to comply with the NO_x standard?

There will be a one-week NO_x summer survey for Phase I complex model RFG. If this fails, would the ratchet apply only to VOC-controlled Phase I complex model RFG produced in the following year? Or does it apply to all (including non-VOC-controlled) Phase I complex model RFG produced in the following year?

There will be a NO_x survey series for Phases I and II complex model RFG conducted between January 1 and May 31 and between September 16 and December 31. If this fails, would the ratchet apply only to non-VOC-controlled complex model RFG produced in the following year? Or does it apply to all (including non-VOC-controlled) complex model RFG produced in the following year?

RFG covered areas

EPA recently announced (59 FR 18967; April 21, 1994) that Putnam County, NY and the Northern part of Orange County, NY are now part of the Poughkeepsie ozone nonattainment area and that Southern Orange County is now part of the New York-Northern New Jersey-Long Island ozone nonattainment area. Putnam and Orange Counties in NY were not included in the list of RFG covered areas in § 80.70 presumably because they were not classified by EPA in the November 6, 1991 Federal Register notice as part of an ozone nonattainment area. EPA notes now (59 FR 18970) that the effective date is January 15, 1992 for the designation and classification that Southern

Orange County is part of the New York-Northern New Jersey-Long Island ozone nonattainment area and that Putnam County, NY is part of the Poughkeepsie ozone nonattainment area. EPA also states that the effective date is April 21, 1994 for the designation and classification that the Northern part of Orange County, NY is now part of the Poughkeepsie ozone nonattainment area; however, EPA also states that the effective date is November 15, 1990 for Northern Orange County for purposes of determining the scope of a RFG covered area under CAA Sections 211(k)(10)(D) and 211(k)(6).

Should EPA add Southern Orange County, NY (Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, and Woodbury) and Putnam County, NY to the list of RFG covered areas in § 80.70 because the designation and classification effective date is in 1992?

Should EPA add Northern Orange County, NY (Towns of Cornwall, Crawford, Deerpark, Goshen, Greenville, Hamptonburgh, Middletown, Minisink, Montgomery, Mount Hope, Newburgh, New Windsor, Port Jervis, Wallkill, Wawayanda and the City of Newburgh) to the list of RFG covered areas in § 80.70 because the effective date for purposes of determining the scope of a RFG covered area under CAA Sections 211(k)(10)(D) and 211(k)(6) is in 1990?

OPRG designation

It will be confusing for refineries to apply the OPRG designation in some cases.

EPA requires that RFG batches be designated at the refinery as OPRG or not:

Gasoline or RBOB must be designated as oxygenated fuels program reformulated gasoline if such gasoline:

- (A) Contains more than 2.0 weight percent oxygen; and
- (B) Arrives at a terminal from which gasoline is dispensed into trucks used to deliver gasoline to an oxygenated fuels control area within five days prior to the beginning of the oxygenated fuels control period for that control area;

§ 80.65(d)(iii).

Refineries may find it confusing to designate a RFG batch correctly and confidently because non-OPRG can have oxygen contents greater than 2.0 wt% (and less than 2.7 wt%) and be distributed from terminals serving both one (or more) combination RFG covered area/oxygenated fuels program control area and one (or more) combination RFG covered area/non-oxygenated fuels program control area during the winter.

Refineries will be shipping RFG up a fungible pipeline for non-oxygenated program non-VOC-controlled RFG (oxygen content will be less than 2.7 wt%). This RFG could end up in 30 or so RFG covered areas in the Northeast in the end of September and during early

October 1995. Local terminals with adequate tankage and proper segregation procedures could serve RFG oxygenated fuels program control areas and RFG non-oxygenated fuels program control areas throughout the winter. As such, many terminals may have the tankage and demand to store and distribute 2.0 and 2.7 wt% oxygen content RFG during the winter to different areas. Because this terminal serves one (or more) combination RFG covered area/oxygenated fuels program control area, all winter RFG supplies at this terminal must be designated as OPRG -- even though some of it is in segregated tanks with significantly less than 2.7 wt% oxygen content?

Let's assume that the pipeline's fungible non-OPRG specification is 2.0 wt% oxygen content. The actual oxygen content is likely to be higher than 2.0 wt%. Should this RFG be designated at the refinery as OPRG because an oxygen content test result could be higher than 2.0 wt% and some of this batch could end up in a terminal serving the NYC area after September 25, 1995 or another Northeastern oxygenated fuels program control area after October 25, 1995?

Most of this RFG could be used in RFG covered areas that are also not oxygenated fuels program control areas. Should the refinery "play it safe" by designating this fungible RFG as OPRG even though it is significantly less than 2.7 wt% oxygen content?

Importers

Assuming that the importer of record uses more than one import terminal, are the averaging and reporting of imported RFG necessarily on the basis of each combination of importer/individual terminal or is it on the basis that the importer sends one report for all terminals in a PADD and has a separate aggregate averaging pool for each PADD?

Does "on the basis of all averaged reformulated gasoline and RBOB imported by the importer" in § 80.67(b)(2)(i) mean that the importer should or can aggregate across import terminal facilities in a single PADD when the average standard is identical for each import terminal?

Does "shall meet the averaged standards separately for the averaged reformulated gasoline and RBOB imported into each group of facilities that is subject to the same standards" in § 80.67(b)(2)(ii) mean that the importer should or can aggregate across terminals in the same PADD with the same average standards?

If an importer has more than two import terminals within a PADD, may the importer of record elect "per gallon" compliance for some import terminals and "average" compliance for other import terminals within the same PADD or must all imported RFG within a PADD be designated consistently?

Does "[a]ny ... importer that ... imports any reformulated gasoline or RBOB, ... shall submit quarterly reports ... for all such reformulated gasoline or RBOB imported by each importer" in § 80.75(a) mean that EPA does not expect the importer to

necessarily report separately for each import terminal facility?

Sections 80.76(c)(3) and (d) do not specifically mention separate import terminal facilities. EPA does not expect the importer to include a list of specific import terminals as part of the registration? If EPA does expect the importer to include a list of specific import terminals as part of the registration and if an importer is unsure of what terminals might be involved in importing gasoline (conventional or RFG), does EPA see any downside for such importer potentially over-registering terminals as a contingency?

Most terminals that import gasoline do not have company labs to perform analyses required by EPA for determination of gasoline properties. Such import terminals also are required to participate in the independent sampling and testing program. Does EPA intend that the lab performing the independent testing be distinct from the lab that performs the analyses for RFG certification or anti-dumping purposes? If so, where in the rule might such a prohibition be found?

Could a refiner or importer use an independent lab to simultaneously comply with the certification and independent sampling and testing requirements with one test?

May the importer of record choose to use for RFG certification purposes the properties of the cargo based on an analysis performed by a foreign laboratory for the seller, or must the certification of imported gasoline be based on an analysis of the landed cargo, and hence performed by a domestic laboratory?

RBOB

Is it accurate to conclude that there are no specific property or composition standards for RBOB since it is a blendstock and not a finished product?

Should the refinery report actual (RBOB alone) or blended (RBOB plus oxygenate) properties (such as benzene content by volume) for RBOB batches on the quarterly RFG/RBOB batch report?

What volume should the refinery use on the quarterly batch report for RBOB batches? Since the refiner's analytical data are based on a blended product (the RBOB plus the oxygenate), it would seem correct to base the volume on an RBOB plus oxygenate calculation; otherwise, the weighted averages, etc. won't be mathematically correct. With averaging, refiners would use the combined RBOB plus oxygenate volumes as the denominator for calculating volume-weighted averages. For the RFG/RBOB averaging reports, the refinery should report the volume-weighted averages assuming that the RBOB batches were blended with oxygenates for both volumes and properties?

Should the product transfer documentation for RBOB, per § 80.77(g)(2), simply state that the RBOB will, after addition of the designated oxygenate, conform to the applicable

maximum/minimum standards for RFG?

RBOB and low RVP conventional gasoline

Assume that a refiner produces VOC-controlled ether-only RBOB for VOC Region 2 and that each refinery batch is distributed to multiple terminals. Some terminals add MTBE and redesignate it as RFG. The remaining terminals add the conventional gasoline marker and redesignate it as conventional gasoline (for use in ozone nonattainment areas requiring conventional gasoline with RVP lower than the federal Phase II RVP limits). A terminal with adequate tankage could do both.

Sections 80.69(a)(5) and 80.69(d) restrict the distribution of RBOB only to oxygenate blenders registered with EPA. If a terminal does not serve a RFG covered area and will not add oxygenate to RBOB, is it still required to register with EPA as an oxygenate blender in order to receive RBOB?

If a terminal (1) receives RBOB and redesignates it as conventional gasoline after adding the conventional gasoline marker and (2) does not add oxygenate to any RBOB, would § 80.69(b), requirements for oxygenate blenders, be waived?

California exemptions

Are laboratory test methods that are recognized by CARB allowed to be used (in lieu of the EPA prescribed methods) for certifying federal RFG for use in California prior to commencement of the CARB Phase 2 RFG program?

California refiners are exempt from the independent sampling and testing requirements in § 80.81(b)(2). Does this exemption allow California refiners to use a computer-controlled in-line blending operation without first obtaining an exemption from EPA?

How will the California enforcement exemption be impacted if CARB modifies the start date for the Phase 2 program? Are regulatory language changes required to maintain the exemption if CARB modifies the date? How will the California enforcement exemption be impacted for refiners that receive such variances? How will EPA handle overlapping averaging periods in this case?

In-line blending and conventional gasoline

Section 80.101(i)(1) requires testing of conventional gasoline "prior to such gasoline ... leaving the refinery." Given that the anti-dumping program was never intended to interfere with long-standing industry practices for conventional gasoline production, does this preclude refiners from using in-line blending for conventional gasoline?

Registration

On page 23 of Peter Lidiak's handout at the March 7 workshop, NO_x emissions performance (complex model) is incorrectly listed under the 3rd quarter. The averaging report for NO_x emissions performance (complex model) is due with the 4th quarter report.

per § 80.75(g), with two averaging pools: VOC-controlled and non-VOC-controlled RFG.

Does a refiner need an EPA registration number before its first RFG shipment in 1994 because § 80.77(j) requires this registration number on the product transfer document?

Baseline determinations

What happens if a refiner meets the legal deadline for submitting baseline determinations and EPA does not approve or disapprove the baseline prior to the refiner having to produce RFG for 1-1-95 compliance? In this case, what baseline would a refiner use to blend in order to be in compliance?

Reporting volumes to EPA

Section 80.75(a)(2)(iii) requires refiners to report the volume of each batch of RFG to EPA. Should the refiner report the tank volume at the time that a sample is collected? If so, this may result in double-counting because the tank would not be emptied before blendstocks are added to produce the next batch.

For example, the tank volume is 100,000 barrels for batch 1 and a sample is collected. There are two shipments from this tank, a 50,000 barrel shipment and a 20,000 barrel shipment. The tank is then blended up to 90,000 barrels for batch 2 and sampled with subsequent shipments of 28,000 barrels and 44,000 barrels. Should the reported volume for batch 1 be 100,000 barrels or 70,000 barrels? Should the reported volume for batch 2 be 90,000 barrels or 72,000 barrels? If EPA selects the tank volume (100,000 barrels for batch 1), then there will be double-counting if the tank is not emptied before beginning the next blend. If EPA selects the sum of the shipments from the tank, then the batch volume may be determined the day (or a few days) after the sample is collected.

Section 80.65(f)(3)(i)(B) requires that the designated independent sampling and testing company record the volume of the batch. Should this volume be the tank volume at the time that the sample was collected? Should this volume correspond to the volume reported by the refiner in the quarterly batch report? If EPA wants to avoid double-counting and directs the refiner to report the sum of shipments, what volume value should the independent sampling and testing company record and report to EPA?

Covered area report

Refineries are required by § 80.75(i) to report the identity of each covered area that was supplied with any averaged reformulated gasoline produced at each refinery during the previous year. Because EPA does not expect a refinery to track every RFG shipment to a RFG covered area, EPA does not expect a refinery to keep watch over where exchanges or sales to "middle men" end up?

Miscellaneous

Downstream from a refinery, how empty must a ship, barge or storage tank be when service is changed from conventional gasoline to RFG (i.e., tank bottoms stripped out, vacuumed, water washed and vacuumed)?

For RFG, must a cargo document containing specific volumetric and quality specifications information be placed on board a barge before it sails or can this information be faxed to a cargo receiver? If a barge must physically carry RFG product transfer documents, then in multiple delivery situations what type of volumetric information is required?

Will EPA accept alternate testing methods for sulfur, benzene and aromatics?

For a refiner producing conventional gasoline, may oxygenate added at a non-proprietary terminal be included in the determination of the conventional gasoline properties, provided the refiner has a quality assurance program at the terminal to ensure the oxygenate was added?

What is a satisfactory quality assurance program that ensures oxygenates are being added to RBOB at a non-proprietary terminal?

For a refiner producing conventional gasoline, may the election of using the simple or complex model until 1998 be changed annually?

Could a refiner who distributes only in an attainment area produce all or part of his gasoline as RFG and market as conventional gasoline without including the RFG portion in meeting his 1990 baseline requirements? What are the recordkeeping implications?

With respect to § 80.41(h)(1), what is the definition of "no" in "no heavy metals"?

Terminals

Could a terminal accept delivery of a batch of RFG that is designated as OPRG when that terminal does not serve a RFG covered area that is an oxygenated fuels program control area? Could a terminal permit delivery of OPRG to a RFG covered area that is not an oxygenated fuels program control area?

Assume that two terminals, both located in an a RFG covered area, supply gasoline to both the RFG covered area and to outlying attainment areas that can use conventional gasoline. Two gasoline suppliers with terminals in this area could set up an arrangement in which one terminal stocks only RFG and the other stocks only conventional gasoline (perhaps there is not enough tankage for both terminals to each stock RFG and conventional gasoline). The suppliers would then arrange an exchange so that both companies lift RFG for the RFG covered area from one terminal and conventional gasoline for the attainment area from the other terminal. With respect to § 80.65(a), would there be any violation by the terminal located in an RFG covered area selling only

conventional gasoline to stations in the attainment areas?

If a terminal tests a shipment of product and determines that it significantly deviates from the specifications, is the terminal operator liable for corrections/disposal of the product? Do the non-transportation rules in § 80.79(c) Quality Assurance Program (2)(i) apply in this case? Can a terminal operator presume that the manifest is correct and use that for defense in case of challenges further downstream?

EPA'S RFG ENFORCEMENT
QUESTION AND ANSWER DOCUMENT

Question:

The generation of interfacial mix between dissimilar batches of petroleum product is an inherent occurrence in pipeline transportation. Historical pipeline practices have involved the disposition of this interfacial mix through blending to the available quality margins of the product grades handled. All previous EPA fuels programs (unleaded gasoline, volatility control, desulfurization, oxygenated gasoline) have been successfully incorporated into pipeline operations utilizing these historical interfacial mix disposition practices. However, RFG will have no "margin of quality". Therefore, no dissimilar product may be displaced into RFG through pipeline product batch handling, i.e., RFG must be protected. "Protecting" RFG will result in less RFG volumes available in the marketplace than were produced at the refinery. Can interfacial mix continue to be displaced into the quality margin of conventional gasoline? Would the disposition of interfacial mix into conventional gasoline through pipeline product batch handling practices result in pipeline companies being deemed blenders (refiners) under the Anti-Dumping regulations? Would the disposition of interfacial mix have any impact upon refinery based RFG/Anti-Dumping compliance calculations?

Answer:

Since the intention of the Anti-Dumping regulation is to assure conventional gasoline quality is maintained at the level present in 1990, pipeline handling practices of interfacial mix should not be changed from the practices employed in 1990. Therefore, the disposition of the interfacial mix in the available Non-RFG product quality margins continues to be an acceptable practice. Given the refinery based compliance format of the Anti-Dumping regulation, interfacial mix disposition as described, neither results in a pipeline company being deemed a blender nor would the practice have any affect upon refinery compliance calculations.

Another question for the Q/A
document



Bob- Per your request, *AL* 5/3/94

Post-It™ brand fax transmittal memo 7671		# of pages
To	Bob Greco	From
Co.	APZ	Co.
Dept.		Phone #
Fax #	(202) 682-8031	Fax #

AL TALBOT
SUN CO
(610) 859-1780
-5861

Sun Company, Inc.
Ten Penn Center
1801 Market Street
Philadelphia PA 19103

April 28, 1994

Mary Smith
Field Operations and Support Division (6406J)
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

Dear Ms. Smith,

Attached are questions I would like to submit on behalf of Sun Company for the Reformulated Gasoline Question and Answer Document. If you have any questions please contact me at (215) 977-3133.

Sincerely,

David J. Tropp
David J. Tropp
Manager Fuels Quality Assurance

DJT/tin

cc: B. C. Davie
A. F. Talbot
J. C. Vankoski
R. W. King

REFORMULATED GASOLINE REGULATION QUESTIONS
SUN COMPANY 4/28/94

- 1.) With regard to the product transfer document [80.77(q)(2)], would it be acceptable to simply classify the fuel as to its type (SIMPLE/COMPLEX MODEL, RFG, CONVENTIONAL, RBOB, VOC CONTROL, OPRG) and exclude the minimum and maximum standard as they are dictated by the fuel type specified. This would help alleviate the growing amount of information required on transfer documents.
- 2.) The requirement of section 80.77(j) to provide all EPA assigned registration numbers for transferors and transferees if registered on all product transfer documents creates a rather enormous administrative task (keeping track of all EPA registration numbers). It would seem more prudent to require only the refiner, importer or blender producing or importing the product to provide their own registration number on the document as the transferee and exclude this requirement from downstream parties (carrier & terminals unless a blender).
- 3.) With regard to oxygen content of gasolines.
 What is the maximum oxygen content a refiner, importer or blender may certify (including blending allowances) for the following:
 - Conventional Gasoline containing Ether
 - Conventional Gasoline containing Ethanol
 - Reformulated Gasoline NON-OPRG containing Ether
 - Reformulated Gasoline OPRG containing Ether
 - Reformulated Gasoline NON-OPRG containing Ethanol
 - Reformulated Gasoline OPRG containing Ethanol
- 4.) At the March NPRA Reformulated Gasoline workshop the EPA stated that OPRG cannot be sold in areas not requiring OPRG. This creates significant distributions system problems. If there is a concern by the EPA related to averaging a possible solution would be to require parties who choose to average oxygen to account for and document OPRG sales in NON-OPRG areas. There should be no restrictions on those who do not average oxygen.
- 5.) Section 80.69(b)(4) indicates that an oxygenate blender that chooses to average is required to test each batch (truck) of product. In the case of computer controlled truck blending would documentation of the metered volumes of components be sufficient given an oversight program as outlined in this section?
- 6.) In the event a refiner purchases finished gasoline and uses that gasoline as a blendstock should this purchase be backed out of the refiners compliance calculations for reformulated and conventional gasoline averaging purposes. This would be similar to purchasing a blendstock that is already included in the supplying refinery baseline.

- 7.) Please define any restrictions on mixing Ethanol and Ether fuels.
- 8.) A procedure has been outlined by the EPA for the certification of oxygen content by meter for the oxyfuel program. Can this method be used for certification of oxygen content in reformulated gasoline? Is an exemption for in-line blending required?
- 9.) Will the EPA notify industry of a compliance survey failure prior to the deadline to nominate averaging or per gallon compliance for the subsequent year?



Betty Anthony
Director, Corporate Studies

Amoco Oil Company

Mail Code 1604
200 East Randolph Drive
Chicago, Illinois 60601-7125
Planning & Administration
312-856-7657

April 29, 1994

Marilyn Bennett
Field Operations and Support Division (6406J)
Environmental Protection Agency
401 M St SW
Washington, DC 20460

Dear Marilyn:

In response to EPA's request, I am attaching a preliminary set of questions for your Q&A document. Additional questions may arise as we continue our consideration of how to comply with the reformulated gasoline rule. I realize that to meet your July 1 response deadline you may not be able to address questions that surface later in this process, but I will continue to forward additional questions as they appear. Given the complexity of this rulemaking, EPA may have to issue a series of Q&A documents so any questions which cannot be incorporated in the July 1 document may be able to be addressed in subsequent Q&As.

We appreciate EPA's willingness to provide timely guidance on this important program. If you have any questions about the attachment, please call me at (312) 856 7657.

Sincerely,

Betty Anthony

Questions for EPA Q&A Document

Mixing

- Is it correct that the regulations do not prohibit the mixing of ETBE RFG and MTBE RFG at any point in the distribution system?
- Can ether RFG and alcohol RFG be mixed outside the VOC season provided the substantially similar requirements are not violated?
- Is it correct that the regulations do not prohibit the mixing of RFG with conventional gasoline for sale outside RFG covered areas?
- Is it correct that the regulations do not prohibit the mixing of VOC-controlled RFG with non-VOC controlled RFG for sale outside the VOC season?
- Is it correct that any oxy RBOB cannot be mixed with ether RFG?

Sales

- Please confirm that the following can legally be shipped and sold both by terminals and retail stations:
 - OPRG in a non-OPRG area (this is analogous to the current practice where oxygenated fuel can be sold in a non-oxygenated fuel area)
 - Southern RFG in a Northern RFG area
 - RFG in a conventional gasoline area

Oxy Blending

- What testing must an oxygenate blender conduct at the point of blending? Must OFID be conducted or is a volume reconciliation acceptable for in-line rack blending as it was under the oxy fuel guidelines? Will the testing have to be conducted on each batch or at a certain interval such as is defined for QA/QC purposes?
- How will the production of conventional blendstock for oxygenate blending (CBOB) be handled? CBOB would be produced if ethanol were added at the terminal to meet, for example, winter oxygenated fuel requirements. Wouldn't the CBOB be considered for blendstock accounting purposes at the refinery as gasoline and thus have no impact on blendstock accounting?
- The regulations appear to restrict the addition of oxygenates to only OPRG. Is that correct? Why couldn't additional oxygen be added to RFG if needed to meet the needs of an oxy fuel city?

Compliance

- What rounding convention will be applied for the various standards set in the rule and to what significant digit it must be taken? For example, if the RVP max is 8.3 psi, how will an 8.31 reading at the refinery be classified? What about 8.34? Please clarify the rounding for all regulatory requirements.
- The RVP tolerance downstream of the refinery is .3 psi. Again, what is the rounding convention? How will EPA consider a measurement by EPA of 8.61 psi for Northern RFG?
- The regulations (Federal Register p. 7814 Section 80.41(h)(2)(iii)) and EPA's draft reporting forms imply that the sulfur, T90 and olefin restriction associated with the simple model do not apply on a refinery basis for a refiner with more than one refinery, but instead apply to the refiner's aggregation of his refineries as chosen under the antidumping program. Is that correct?

Reporting/Recordkeeping

- Transfer Documents:

-- Can volumes provided by pipelines be used on a refiner's product transfer document? Pipelines often own the custody transfer meter and thus provide shipment data to refiners. Therefore, could a refiner rely upon transfer documents produced by a pipeline to meet the refiner (i.e., shipper's) responsibility as it relates to the generation of transfer documents? Would such a document provide an adequate defense for the refiner?

-- Will product codes, such as are currently in use by pipelines, be sufficient for compliance with the product transfer document requirements if the additional information specified in the regulations is contained in a central product code description as opposed to being printed on each transfer document?

-- Product transfer documents require a registration number. Doesn't this mean that parties must register with EPA earlier than the regulations indicate? The regulations say refiners must register on the date RFG production begins or November 1 whichever is later?

-- Please clarify what is meant by "RBOB distinguishing properties" for transfer document purposes. Does this just mean the type of RBOB and the amount and type of oxygenate to be added? Is any information about max/mins needed?

-- Will each compartment of a truck loaded at the rack at the refinery be deemed a different batch of RFG and thus need a

batch ID or could the invoice number serve as the unique identification number for that shipment?

Transitions

-- During a transition period, refiners will produce VOC-controlled RFG that is blended with non-VOC-controlled RFG downstream of the refinery in order to blend down RVP prior to the beginning of the VOC season. How will the resultant mixture be classified and identified on the product transfer document issued for instance by a terminal?

- Similarly, since all tanks cannot be drained, in the fourth quarter of 1997, as refiners switch from the simple model to mandatory use of the complex model simple model gasoline will have to be combined with complex model gasoline downstream of the refinery and perhaps at the refinery itself. How should the resultant mixture be classified? How will this be handled for enforcement purposes? for the compliance survey?

Pipelines

- Pipelines will not be considered refiners if they mix interface in gasoline (e.g., inclusion of RFG interface in conventional gasoline) will they?

- Are there any circumstances where a pipeline could be considered an oxygenate blender?

Downgrading

- What procedures must be followed if product is downgraded, e.g., RFG is downgraded to conventional gasoline? What procedures, if any, apply at the refinery as opposed to downstream of the refinery?

- What, if any procedures will apply to off-spec products? How do these procedures apply at the refinery? for pipelines? for terminal operators? at retail?

In-Line Blending

- The petition process referred to in Section 80. references RFG. Will in-line blenders of RBOB also be allowed to become exempt from the independent sampling/testing requirements through EPA approval of a petition?

- How will refiners who produce conventional gasoline using in-line blending be treated? At the March workshop EPA seemed to indicate that conventional gasoline batch information (e.g., properties) based on in-line blending could be used for complying with the antidumping program. Is that correct? Would this apply automatically to conventional gasoline production or would a petition be required as it is for RFG production?

Credit Trading

- The regulations and reporting requirements imply that credit trading for oxygen and benzene is allowed across nonattainment areas not just within an area. Is that correct?

Testing

- What field test methods are acceptable for QA/QC programs downstream of the refinery? Can a field test method be used as a defense if it is correlated with an EPA specified lab test method?

- If RFG is shipped from a refinery through a proprietary pipeline system to a terminal must the pipeline test the fuel or would testing at the refinery and the terminal be sufficient?

Winter RFG

- Please clarify the treatment of gasoline (both RFG and conventional) with typical winter RVPs. The regulations seem to imply that RFG with an RVP of higher than 10 psi and conventional with a greater than 11 psi RVP cannot be certified. Isn't it correct that such fuels would be certified as legal fuels but that for the purposes of determining their emissions 8.7 psi RVP would simply be entered into the model?

New Volume

- Is a new volume correction needed only when the 1990 volume is exceeded on an aggregate basis rather than for each individual refinery? Are new volume corrections to be applied on an annual average basis or seasonally?

Simple/Complex Model

- Must the complex model be used to certify RFG with an oxygen level of greater than 2.7 weight %?

Blendstock Accounting

- How will sales to traders/brokers where the end use of the blendstock is not known upon sale be considered for the purpose of refiners' calculations regarding blendstock accounting?

**PHILLIPS 66 COMPANY**

A DIVISION OF PHILLIPS PETROLEUM COMPANY

BARTLESVILLE, OKLAHOMA 74004 PHONE: 918 661-6600

May 1, 1994

Questions for EPA Q&A Document on RFG

Marilyn Bennett
Field Operations and Support Division (6406J)
U. S. Environmental Protection Agency
401 M. Street, S.W.
Washington, D.C. 20460

Dear Ms. Bennett:

Phillips Petroleum Company is concerned that, when applied to refiner blending at proprietary terminals, the reformulated gasoline and antidumping regulations are ambiguous. Thus, we believe clarification of EPA's intent and enforcement policy regarding these facilities would be helpful. Specifically, areas addressing how blenders of oxygenates and other blendstocks, in combination with finished conventional gasoline from company owned refineries or from others, are to establish baseline volumes, determine compliance volumes and emissions performance, or aggregate with other refiner owned facilities having either the antidumping statutory baseline or an individual baseline. We encourage the EPA to clarify these issues in the planned "Questions and Answers" document.

Attached are specific questions we request EPA consider for further discussion in the Q&A document. In addition, we believe it imperative that EPA provide refiners opportunity to modify June 1, 1994, baseline submissions should clarification in the Q&A document vary from assumptions refiners used in meeting the submission deadline.

Thank you for this opportunity to further clarify the intent and requirements of the regulations. Feel free to contact me if the attached questions are not understood or if additional information is needed.

Sincerely,

A handwritten signature in cursive script that reads "Gary A. Schoonveld".

Gary A. Schoonveld
(918) 661-4066

Attachment

cc: Mary T. Smith, EPA Director
Field Operations and Support Division

Marilyn Bennett
Questions for EPA Q&A Document on RFG
May 1, 1994

Questions to EPA on Reformulated Gasoline
and
Antidumping Regulations

May 1, 1994

Further clarification by EPA relative to terminals that add blendstocks to finished conventional gasoline is needed. We interpret the final rules to require these facilities to have a facility baseline unless they are included with another refinery because of close integration or geographical considerations? In most cases these facilities will not have Method 1 data. Consistent with EPA's definition of blenders, we believe these facilities have the default baseline if Method 1 data does not exist?

Will EPA reconfirm that terminals where blendstocks are added to finished conventional gasoline are considered blender-refiners and that these facilities can be grouped per paragraph 80.101(h) with other blender-refiner facilities owned by the same refiner for compliance purposes?

Can EPA confirm that blender-refiner facilities can be grouped per paragraph 80.101(h) with refining facilities owned by the same refiner for compliance purposes.

What is the baseline volume for a terminal where blendstocks and oxygenates are added to finished gasoline? If blendstocks are added to finished motor gasoline received from others, should the baseline volume exclude this finished gasoline?

A facility which did not blend in 1990 but may do so in the future would have a zero baseline volume with industry average default baseline properties. Can this facility be grouped for compliance purposes with other refiner owned facilities (refineries or blending facilities)? What is the mechanism for establishing the baseline volume and properties for this facility?

Compliance calculations for blending facilities and refineries that are grouped need to be further clarified. Will EPA confirm that the compliance baseline for this grouping is the volume weighted compliance baselines of the facilities? For example, a grouping of one (1) refinery and one (1) blending facility owned by the same refiner:

Compliance Baseline = (volume of blendstock added at the blending facility

* blending facility baseline
 + volume of gasoline produced at the refinery
 * refinery baseline)
 / (volume of blendstock added at the blending facility
 + volume of gasoline produced or shipped from the refinery)

Furthermore, the compliance calculations for this type of grouping should be:

For Simple Model:

(blendstock volumes added at the blending facility
 * parameter of the blendstock
 + gasoline volume produced at the refinery
 * parameter of the gasoline)
 / (blendstock volume added at the blending facility
 + gasoline volume produced at the refinery)
 compared to the group compliance baseline.

For Complex Model emissions:

(blendstock volumes added at the blending facility
 * pseudo parameter of a blendstock-baseline gasoline
 + gasoline volume produced at the refinery
 * parameter of the gasoline)
 / (blendstock volume added at the blending facility
 + gasoline volume produced at the refinery)
 compared to the group compliance baseline.

Where in the final antidumping regulations are oxygenate blenders excluded from the antidumping requirements? An exclusion(s) is discussed in the preamble at Section IX.B.

Will EPA provide refiners opportunity to modify June 1, 1994, baseline submissions should answers to questions vary from interpretations refiners have already had to make in order to meet the submission deadline?

**Chevron**Clean Air Act
Compliance TeamWalnut Creek, Ca.
April 28, 1994Marilyn Bennett
Field Operations and Support Division: (6406J)
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

The attached four pages contain additional questions concerning the reformulated gasoline and antidumping regulations that Chevron is submitting for your review and inclusion in your 'Question and Answer' document.

We have previously submitted questions via the API but are sending these separately in order to meet the May 1 deadline and due to our specific interest in the issues covered by these questions.

Thank you

Harry Hall
Chevron Clean Air Act Compliance Team
Manager

A handwritten signature in cursive script that reads "Harry Hall".

FAX (510) 977-7590

bcc:

API Bob Greco / Tim Hogan
DA Bea
AJ Jessel
WR Scott
CAACT

**Chevron Questions For the EPA RFG/
Antidumping July Q&A Document**

Question 1

Reference section 80.202(f) Compliance Baseline Determinations:

Situation: A refinery makes all conventional gasoline. For eight months of the year the refinery makes this conventional gasoline to a summer (7.8 psi) RVP specification and to a winter (higher RVP) specification the other four months of the year. In 1998, the refinery increases production of conventional gasoline beyond its 1990 volumes. Is it correct that Veq (paragraph (f)(4)(i)) and CBi (paragraph (f)(4) (iii)) are computed without regard for whether the incremental gasoline is produced as summer or winter gasoline? Are the correct values for DBi found in 80.91(c)(5)(iv)-NEW (proposed for Direct Final Rulemaking), the 'annual average anti-dumping statutory baseline'? Are the correct values for Bi the numbers computed pursuant to 80.91 (f)(2)(i), the 'Individual annual average baseline emissions'?

Specific Example: Chevron's Hawaii refinery makes non-VOC controlled conventional gasoline year round. Assuming the refinery complies using the complex model, per paragraph (g)(6), anti-dumping compliance calculations will use the winter complex model found in 80.45. If Chevron's Hawaii refinery elects to increase production of conventional gasoline in 1998 or later, is it correct, in computing CBi, to use values for DBi found in 80.91(c)(5) (iv)-NEW, the 'annual average anti-dumping statutory baseline' and not the values referred to in 80.91 (c)(5)(ii) (column headed 'Winter' in chart found in 80.45 (b)(3))? If so, this interpretation would appear to force increased production of conventional winter gasoline to meet a combined winter/ summer baseline. Was this EPA's Intent?

Question 2

Reference section 80.101(g) Compliance Calculations:

Section 80.101(g)(1) requires the computation of an 'annual average value for each parameter or emissions performance during the averaging period'. Paragraph (g)(1)(ii) presents an equation for computing averaged parameters based on individual batch data (APARM). Are the values computed for APARM then substituted in the appropriate equations found in 80.45? If so, should the words 'for each batch' in paragraphs (g)(1)(iii - v) be eliminated? If not how are averaged values for emissions performance to be calculated from the values of APARM?

Sections 80.101 (g)(5 and 6) designate which model to use, summer or winter, to compute batch emissions performance. 40 CFR 80.27 contains both RVP limits by geographical area and by control period. Are 'summer gasolines' to be determined by both limits? Should any gasoline produced to the applicable RVP limit be designated as summer regardless of what time of year it was produced? Or should summer gasoline be only that gasoline meeting the RVP limit and produced during the control period?

Question 3

Conventional gasoline refiners and importers who elect the simple model to determine compliance during the 1995-1997 period will need to test for T90, olefins, sulfur, benzene and aromatics. They must then report T90, olefins, sulfur and exhaust benzene average results on an annual basis. Will these refiners and importers need to test and report any of the other quality parameters? Will simple model RFG refiners and importers and their independent labs need to test and report T50, E200 or E300?

Question 4

The Antidumping regulations state that for baseline determination volumes shall be reported to the nearest barrel. RFG and conventional reports ask for volumes in gallons. Since refiners and importers generally work with barrel units is it appropriate for production volumes to be rounded to the nearest barrel and then converted to gallons for reporting purposes?

Question 5

Are importers required to aggregate each of their facilities for compliance purposes? For instance will an importer that imports gasoline into multiple PADDs aggregate the like gasolines irrespective of PADD for compliance purposes? Would the importer submit one quarterly and/or annual batch report or submit reports for each PADD?

Question 6

The company registration form includes the requirement to provide information on where company records will be kept. It is likely that the required records will be kept at multiple sites; current year records may be stored and handled locally by facility, prior year records may be stored at central offsite storage facilities to accommodate local capacity constraints, and some of the records may be stored electronically in central and/or local computers. EPA personnel have indicated that they are considering removing this requirement from the company registration form. What is the status of this issue? If the requirement remains what is the EPA's intent on record storage location?

Question 7

Section 80.101 (i) Sampling and Testing provides a composite sampling and testing option to determine conventional gasoline properties. One provision to this option is that composite samples will need to be prepared as described in section 80.91 (d) (4) (iii), entitled 'Compositing Procedure'. Part B of this procedure requires that "properties of the retained samples shall be adjusted for loss of butane by comparing the RVP measured right after blending with the RVP determined at the time that the supplemental properties are measured." No further details are given.

- 1) Please detail how this process would work.
- 2) Conventional gasoline refineries meeting simple model average standards must monitor their T90, olefins, sulfur and exhaust benzene (function of benzene and aromatics) results. Since RVP is not required for antidumping compliance in the

simple model case will the butane adjustment step be required for composite samples at simple model refineries?

Question 8

According to 80.75 (k) Reporting Requirements for early use of the complex model, early use complex model RFG refiners and importers need to submit an early use election report 60 days prior to the beginning of the calendar year during which such standards would apply. Will a refinery not involved in RFG production but electing early use of the complex model for its conventional gasoline production be required to submit the same report?

Question 9

Antidumping section 80.101 (e) Product to which standards do not apply, indicates that 'California gasoline' should be excluded from a refinery's compliance calculations.

'California gasoline' is defined in 80.81 as 'any gasoline that is sold, intended for sale, or made available for sale as a motor vehicle fuel in the State of California and that (i) is manufactured within the State of California; (ii) is imported into the State of California from outside the United States; or (iii) is imported into the State of California from inside the United States and that is manufactured at a refinery that does not produce reformulated gasoline.'

Based on these sections is it a correct interpretation that starting in 1995 a California refinery or importer producing or importing conventional gasoline solely for the California market would exclude all its gasoline from baseline compliance calculations and therefore not have any reporting requirements?

Question 10

Section 80.65 (f) (2) (i) & (ii) Independent analysis requirement, states that any importer shall designate one independent laboratory for each import facility at which RFG or RBOB is imported and identify the designated independent laboratory to the EPA according to the 80.76 registration requirements.

However, section 80.76 (c) (3) requires separate facility registrations only for refineries and oxy blending facilities. The current draft facility registration forms also do not address import facilities. How and where do importers provide the required facility information?

Question 11

Section 80.79 (c)(1)(ii)(B) Quality Assurance Program, provides for intentional blending with complying product to correct off-test RFG at terminals. We request confirmation of our understanding that this activity does not classify the terminal as a refiner.

Question 12

Many terminals do not have the equipment or personnel available to conduct on-site testing for quality assurance purposes and therefore plan to use the services of an off-site laboratory. We are concerned about exposure during the interval of time required to obtain test results. What is the EPA's enforcement attitude to this situation assuming that the terminal meets transfer document and quality assurance requirements but releases product that subsequent test reports show is out of specification?

Question 13

Importation of either a reformulated or conventional gasoline requires the transferor to provide the transferee with product transfer documents. Typically, a cargo will arrive from a foreign source in a foreign-flag spot chartered vessel. The vessel, if considered the "transferor" is not subject to federal regulations and, therefore, could not be relied upon to provide fully acceptable transfer documents. The importer, however, is in a position to generate documentation with all requisite data. If so, will the EPA consider these documents as acceptable for liability defenses?

Question 14

Starting with the first tender of RFG shipped later this year, transferors are required to provide transferees with transfer documents detailing the type of RFG (VOC or non, oxy program or not, simple or complex) and various minimum or maximum quality statements (oxygen, benzene and RVP for simple and oxygen, benzene, VOC and NOx for complex).

In California, the Los Angeles and San Diego areas are both RFG and oxygenated program covered areas. Further, the oxygenated program in California requires 1.8 -2.2 weight % oxygen for control areas during the winter control periods as opposed to 2.7% elsewhere. Since RFG sold in California will satisfy the oxygenated program requirements without additional oxygenate will transfer documents be required to differentiate between RFG and OPRG?

Question 15

Please clarify how the facility aggregation option would work. Recent EPA report drafts suggest that facility aggregation would only apply to simple model anti-dumping and RFG sulfur, T90 and olefins compliance. Is this correct?

Question 16

The federal oxygenated program requires transfer documents to contain oxygenate type and oxygen weight % and volume % information on each oxygenated gasoline movement. The RFG program requires a min/ max oxygen statement which essentially duplicates the oxy program requirement. Is it sufficient to only print the RFG required message rather than both the oxy program and the RFG program messages?



Gina Grey
Managing Coordinator

April 28, 1994

Ms. Mary Smith, Director
Field Operations & Support Division
U. S. Environmental Protection Agency
401 M Street
Washington, D. C. 20460

**Western States Petroleum Association:
Questions on Final RFG Rule**

Dear Ms. Smith,

The Western States Petroleum Association (WSPA) appreciates the opportunity to submit a list of questions on issues pertaining to the final Reformulated Gasoline Rule. Consistent with your direction at the March 7-8 NPRA workshop and subsequent conversations with your staff, we have divided our questions into three categories. The first is a short list of what WSPA believes to be non-controversial issues that could be potentially addressed via the issuance of the proposed direct final rule. The second list includes the most time sensitive issues on which WSPA feels clarification is urgently required as we prepare for the introduction of federal RFG in Southern California. The third list includes issues associated with the introduction of CARB's Phase 2 reformulated gasoline on 3/1/96.

Direct Final Rule Issues

1. Predictive Model Certification

The California exemption provided in the final EPA RFG rule is limited to gasoline certified with the CARB model, in that notification to EPA is required within 30 days of such certification, including a written demonstration that the CARB-certified formulation is in compliance with the federal RFG standards. Furthermore, if such demonstration is not submitted, the exemption is automatically and (immediately) lost. The formulation certified with the CARB model will have to provide emissions reductions equal to, or greater than,

gasoline produced to the corresponding CARB Phase 2 gasoline standards, and EPA recognizes gasoline produced to the CARB Phase 2 standards will clearly meet EPA's Phase 1 pollutant reduction targets (see comments on California enforcement exemption in Preamble to the Final Rule). WSPA therefore recommends EPA extend the California exemption to CARB model-certified gasoline formulations through 1999 and eliminate the requirement for separate notification within 30 days of CARB model certification over the same period. Once the California model is finalized, WSPA is prepared to undertake a statistical demonstration that all feasible CARB model formulations will simultaneously meet all Phase 1 EPA pollutant reduction targets.

2. Loss of California Exemption

The California exemption provided in the final RFG rule can be lost as a result of an assessment of a civil, criminal, or administrative penalty for violation of the federal RFG or antidumping regulations, or for violation of CARB's Phase 2 RFG regulation. The affected party may petition EPA "for relief, in whole or in part from the applicability of such provisions, for good cause. Good cause may include a showing that the violation for which a penalty was assessed was not a *substantial* violation of the Federal or California RFG standards." WSPA believes the reasons provided for potential revocation of the exemption are unintentionally broad, and recommends EPA apply narrower criteria, including establishment of willful wrongdoing and/or documentation of repeat offenses over a specified period of time before revocation of the exemption can occur.

Short-Term Q&A Questions

1. Oxygenate Requirements for 1994-1996.

- a. WSPA believes, under the anticipated California winter oxygenate waiver extension, California winter gasoline during the 1994/95 and 1995/96 winter seasons can be oxygenated at the 1.8-2.2 wt% level as this has been accepted by EPA as equivalent in practice to the level achieved under EPA's 2.0 wt% per gallon minimum specification (1993 SNPRM Preamble, pp. 111-112). Furthermore, WSPA believes the 1.8-2.2 wt% oxygen target employed in Southern California will not be affected by the introduction of reformulated gasoline on December 1, 1994. Is this correct?

- b. What oxygen level will be required in reformulated gasoline produced for Southern California during the summer of 1995? The final RFG rule states reformulated gasoline will have to be oxygenated at the 2.0 wt% per gallon minimum level. WSPA believes that, if 1.8-2.2 wt% oxygen has been deemed equivalent to a 2.0 wt% minimum during the winter, it should also be deemed to be equivalent in summer.
- c. What oxygen level will be required in reformulated gasoline produced for Southern California during the summer of 1996? CARB Phase 2 Gasoline specifies a 1.8-2.2 wt% oxygen range starting 3/1/96. WSPA believes, under the California exemption from EPA's RFG rule, refiners will be allowed to target 1.8-2.2 wt% in Southern California during the summer of 1996. Is this correct?
- d. The California predictive model is expected to permit CARB Phase 2 gasoline formulations with oxygen contents less than the 1.5 wt% per batch minimum allowed under EPA's RFG rule. WSPA believes, CARB Phase 2 gasoline, regardless of the certification method used, should be considered as meeting all Phase 1 federal RFG provisions and, consequently, the 1.5 wt% minimum per batch oxygen requirement does not apply. Is this correct?

2. Test Methods

WSPA's understanding is CARB-approved analytical test methods are acceptable for certification of both: a) 1995 EPA reformulated gasoline to be sold in California's ozone non-attainment areas, and b) CARB Phase 2 RFG starting on 3/1/96. Furthermore, it is WSPA understanding all CARB test methods are acceptable for this purpose (i.e., both the recommended method and approved equivalent methods). Is this correct?

For aromatics testing of conventional and federal reformulated gasoline batches, EPA requires its own GC/MS method but will accept D1319-93 (the FIA method) until 1/1/97 provided a correlation of the FIA test results back to the GC/MS can be demonstrated. Since EPA's GC/MS method is not used outside of EPA's Ann Arbor laboratory, what steps do refiners desiring to use the FIA method need to take in order to certify the FIA method for their aromatics testing? Can these steps be completed in time for the introduction of EPA reformulated gasoline later this year?

3. Product Segregation

Due to distribution system limitations, a number of situations can arise where reformulated gasoline may need to be downgraded at a terminal for pipeline or marine shipment. Examples include the redesignation of EPA reformulated gasoline as conventional gasoline in 1995, CARB Phase 2 RFG as EPA RFG in 1996, and CARB Phase 2 RFG as conventional gasoline in 1996. Assuming the gasoline to be downgraded was certified with the appropriate CARB approved methods prior to leaving the refinery, is additional testing required (i.e., by the EPA-approved methods) before it can be redesignated?

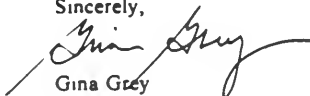
Longer Term O&A Questions

1. Change in Choice of Model for Compliance

EPA's final RFG rule specifies refiners must select either the simple or complex model for compliance during the 1995-1997 period. Refiners choosing to use the complex model must notify EPA sixty days prior to the start of the year they plan to use it. The model selection cannot be changed during the year. Prior to 3/1/96, refiners are likely to be producing simple model gasoline due to the inability to segregate complex model RFG in the distribution system. Simultaneously simple model antidumping gasoline will be in force during this period. A refiner that begins producing CARB Phase 2 RFG on 3/1/96 and produces no EPA reformulated gasoline may find complex model antidumping is preferred for his conventional gasoline. WSPA believes refiners should not have to endure another 10 months before they can switch to complex model antidumping gasoline on 1/1/97. WSPA recommends a one-time model designation change be allowed on 3/1/96 for refiners producing only CARB Phase 2 RFG and conventional gasoline after 3/1/96 provided notification is given to EPA by 1/1/96.

If you have any questions, please contact Aeron Arlin with WSPA at (818) 543-5333 or Nick Economides with Unocal at (213) 977-6848.

Sincerely,



Gina Grey

Final RFG Rule
Page 5

April 28, 1994

cc: Chet France (EPA-Ann Arbor)
Paul Machiele (EPA-Ann Arbor)
George Lawrence (EPA-Washington))
Bob Kenney (EPA-Washington))
Peter Venturini (CARB)
Dean Simeroth (CARB)
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Bob Greco (API)
Terry Higgins (NPRA)
WSPA Fuels Subcommittee
WSPA Compliance Task Force

ATTACHMENT

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5



G. William Frick
Vice President
Health, Environment and Safety

April 13, 1994

Mr. Richard D. Wilson, Director
Office of Mobile Sources
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

Dear Mr. Wilson:

API appreciated the time and effort your staff devoted to the NPRA workshop on March 7-8. As a result of the workshop discussions, we understand that EPA may issue a "direct final" rule to clarify a number of issues associated with the final rule for reformulated gasoline (RFG). Such a rule would allow EPA to quickly address certain non-controversial clarifications.

API strongly supports the issuance of a direct final rule, since it would provide clarification on some time-sensitive issues that are crucial to a smooth implementation of the RFG program. To assist EPA in issuing this rule, we have outlined below those issues that we recommend be included in the direct final rule. Most of these were raised at the NPRA workshop.

Definition of Summer and Winter "Months"

The definition of summer and winter "months" for the purposes of 1990 baseline establishment using Methods 1, 2, and 3 needs to be clarified. Designating all of a month's gasoline production as "summer" leads to several accounting problems. First, the summer/winter split in the Method 1 baseline equation in §80.91(e)(2)(iii) yields baseline values that do not match the summer/winter volumes actually produced and used in the equation in §80.90(a). The definition of summer/winter in §80.91(e)(2)(iii) should be changed so that gasoline properties of each gasoline batch (i.e., RVP) are used to make the distinction between summer and winter gasoline.

In addition, §80.91(d) defines a summer month as any month in which summer grade gasoline is produced, and winter months are defined as any non-summer month. For refiners using Method 3, this definition prevents refiners who produced summer gasoline in more than

Mr. Richard D. Wilson
April 13, 1994
Page 2

nine months of the year from meeting the minimum sampling requirements. Refiners using Method 3 should be given the option of designating a month as "winter" if more than 50% of the volume of gasoline shipped during the month exceeded summertime RVP limits.

Finally, the summer/winter definition in §80.91(d) would prevent refiners who produced summer gasoline in more than nine months from using Methods 2 and 3 to establish their baseline values. Refiners using Methods 2 or 3 should be given the option of designating blendstocks (and their measured properties) as "winter" if more than 50% of the volume of gasoline shipped during the month exceeded summertime RVP limits.

Complex Model Limits for Conventional Gasoline

In the anti-dumping regulations, §80.101(f)(3) indicates that a refiner's baseline can exceed the complex model limits for conventional gasoline. This section is consistent with the anti-dumping requirements in the Clean Air Act. However, §80.45(f)(2) in the RFG regulations stipulates that conventional gasoline cannot exceed the complex model limits. The RFG regulations should be clarified to allow refiners to establish their own refinery baselines at levels that exceed the current limits for RFG.

Simple Model Limits for Conventional Gasoline

Section 80.42(c) limits the maximum benzene and aromatics concentrations for simple model conventional gasoline to 2.5 vol% and 45 vol%, respectively. The upper benzene and aromatics limits for conventional gasoline under the complex model, however, are 4.9 vol% and 55 vol%, respectively (Table IV-3), which are consistent with the anti-dumping requirements in the Clean Air Act. These simple model limits, when combined with the compliance calculation in §80.101(i)(1), would force some refiners to "reformulate" conventional gasoline, and only for the three years that the simple model is in effect. The simple model benzene and aromatics limits should thus be changed to be consistent with the complex model limits.

Oxygen Limit for RFG

The upper limit on oxygen content for simple and complex model gasoline are 3.5 wt% and 3.7 wt%, respectively. These limits might prevent the blending of ethanol into gasoline up to the legally allowable limit of 10 percent by volume (vol%) because of the varying density of gasoline. For example, a blend of 10 volume percent ethanol into a base gasoline of average density would comply with the 3.7 wt% oxygen limit on an annual average basis. However, the same 10% ethanol blend into a base gasoline with lower

Mr. Richard D. Wilson
April 13, 1994
Page 3

densities (such as those found in SWRI survey data) can lead to an oxygen content as high as 3.96 wt%.¹ EPA should revise the upper oxygen limit to 4.0 wt% for both the simple and complex model to allow refiners to blend 10 vol% ethanol into RFGs and conventional gasolines with lower densities.

Refiner Baseline Determination

The requirements for domestic refiners who import gasoline in 1995 are not clear. Section 80.91(b)(2) states that the compliance baseline is the Clean Air Act default baseline, while §80.101(f)(3) states that the compliance baseline is the refiner's 1990 aggregate baseline. It was our understanding that the approach in §80.91(b)(2) was the appropriate baseline. Implementation of the latter approach would be contrary to EPA's extensive efforts to prevent "gaming" of baselines, and we are unaware of this option ever being proposed.

Attest Engagement Requirements

In Subpart F, section 80.125(d), the attest engagement requirements, when conducted by internal audit staff, have been restricted to Certified Internal Auditors (CIAs). Staff Certified Public Accountants (CPAs) have been excluded, even though CPAs have undergone rigorous training and are fully qualified for this role. Furthermore, many companies do not have a CIA on staff. This section should be revised to include staff CPAs.

Oxygenate Blender Testing Requirements

Section 80.69(b)(4) requires oxygenate blenders that choose compliance on average to analyze each batch for oxygen content. For terminals that blend RBOB and an oxygenate into trucks, this requirement means that every compartment of every truck must be analyzed. The cost associated with this level of sampling and testing would essentially preclude the averaging compliance option at terminals.

Terminals should be allowed to comply with EPA's guidelines for the winter oxygenated fuels program (57 FR 4413) as an alternate compliance option. This approach would eliminate the conflicting requirements between the Federal RFG rule and state regulations based on EPA's oxy-fuel guidance. This would also resolve the upper oxygen limit issue identified above, since EPA's oxy-fuel guidelines allow the use of a default gasoline density assumption.

¹This issue is more thoroughly explained in an April 5, 1994 letter from Phil Bush (Amoco) to Paul Machiele (EPA).

Mr. Richard D. Wilson
April 13, 1994
Page 4

In addition to the issues identified above, the attached list identifies several technical corrections and typographical errors that need to be made to the final rule. API provided many of these corrections to EPA prior to the NPRA workshop, and we recommend that EPA also include these corrections in the direct final rule. Because of the need for immediate resolution of these issues, we strongly urge you to issue a direct final rule by April 30.

If you have any questions, please contact Bob Greco at (202) 682-8565.

Sincerely,



G. William Frick

attachment

cc: Chet France
Mary Smith

April 13, 1994

CORRECTIONS IN THE RFG FINAL REGULATIONS: ENFORCEMENT

These items have been selected from a list dated February 25, 1994 that was previously submitted to EPA.

Definitions

Section 80.2(nn) refers to missing paragraphs (pp), the definition of an oxygenated fuels program control area, and (qq), the definition of an oxygenated fuels program control period. What are they? They should be included.

Simple model limits

Section 80.42(c) reads, in part: "Oxygenate content 0 - 3.5 vol %;" "vol" should be replaced with "weight" and "Oxygenate" should be replaced with "Oxygen".¹

RFG designations

Section 80.65(d)(2)(v)(B) states that all RFG and RBOB must be designated as meeting the NO_x standard on a per-gallon or average basis. This should be revised to require this designation only for RFG or RBOB certified using the complex model.

RFG release at a refinery

Section 80.65(e)(1) states that a batch of simple model RFG may not be released by the refinery prior to the receipt of a RVP test result. The RVP test result should not be required prior to the release of non-VOC-controlled simple model RFG and § 80.65(e)(1) should be revised accordingly.

¹ In addition, for consistency with the cover letter, 3.5 should be changed to 4.0.

Section 80.65(f)(4) provides for an exemption from the independent analysis requirements specified in paragraphs (f)(1) through (3). This exemption should also apply to paragraph (e).²

Compliance surveys

Because the NO_x survey is only required for complex model RFG and is not required for simple model RFG, this restriction should also be added to §§ 80.68(c)(3), (c)(4)(ii), (c)(10), and (c)(13)(v)(L).

Section 80.68(c)(9)(ii)(B) incorrectly refers to "paragraph (c)(8)(i)(B)" when the correct reference is to paragraph (c)(9)(i)(B).

With respect to § 80.68(c)(13)(v)(G), the calculated VOC values for samples collected between June 1 and September 15 should also be reported.

With respect to § 80.68(c)(13)(v)(H), calculated VOC values should only be required for samples collected between June 1 and September 15. NO_x values should not be required after 1999 for samples collected between June 1 and September 15 because Phase II RFG NO_x summer surveys will not be required (per § 80.68(c)(3)).

Section 80.68(c)(13)(v)(L) states, in part, "beginning on January 1, 2000, the average NO_x emission reduction percentage." This should be revised to include Phase I complex model RFG and to exclude Phase II RFG samples collected between June 1 and September 15 because Phase II RFG NO_x summer surveys will not be required (per § 80.68(c)(3)).

² Specifically, EPA approval of computer-controlled in-line blending equipment per § 80.65(f)(4) should also mean that the refiner would be exempt from:

- (1) § 80.65(e)(2) - because there would not be an independent lab's test result - and from
- (2) the following part of § 80.65(e)(1): "by collecting and analyzing a representative sample of gasoline taken from the batch, using the methodologies specified in § 80.46. This collection and analysis shall be carried out either by the refiner or importer, or by an independent laboratory. A batch of simple model reformulated gasoline may be released by the refiner or importer prior to release of the refiner's or importer's test results except for test results for oxygen, benzene, and RVP." - because computer-controlled in-line blending is a continuous, not batch, operation and these test methods would delay release of the gasoline.

RFG covered areas

Section 80.70(j)(15)(i) should be deleted because the Governor of Virginia did not include Smyth County in his RFG opt-in request to EPA.

Reporting/recordkeeping

Section 80.75(f)(2)(ii)(A) has two identical paragraphs, (1) and (2). One of these should be revised to read "gasoline which is designated as VOC-controlled and oxygenated fuels program reformulated gasoline".

Because the categories in § 80.75(f)(2)(ii)(A) only apply to oxygen credit trading, § 80.75(f)(2)(ii) should be revised to replace "paragraph (f)(2)(i)" with "paragraphs (f)(2)(i)(E), (F), (G), and (H)".

Product transfer documentation

In § 80.77(g)(2)(iii), "VOC-controlled" should be inserted between "case of" and "gasoline" because it is not required for non-VOC-controlled RFG.

Section 80.77(g)(2)(iv) should be edited to indicate that the VOC value is only required for VOC-controlled RFG.

Prohibited activities

In § 80.78(a)(1)(v)(B), the reference to "below" should be replaced by "less than or equal to". In § 80.78(a)(1)(v)(C), the reference to "above" should be replaced by "greater than or equal to".

Preamble errors

The "Total VOC" values in the second half of Table IV-1 (Phase II Baseline Emissions) are incorrect for Summer Region 1 and Region 2; the incorrect values reported are 1306.48 and 1215.10 milligrams/mile. The correct values for Phase II are 1466.31 and 1399.07 milligrams/mile, which are (1) the sum of the Phase II values for nonexhaust VOC and exhaust VOC listed in this table and (2) the values included in Table 5 of § 80.45(b)(3).

In Section VII.E.3, EPA states the following:

The per-gallon minimum is included in order to cap the averaging range.

It is set at a level that is 2.5% less stringent than the per-gallon standard in the case of VOC, toxics, and NOx emissions performance.

(emphasis added).

"Toxics" should be deleted from this sentence because there is no toxics min/max standard for RFG complying with the toxics standard on average.

ADDITIONAL CORRECTIONS IN THE RFG FINAL REGULATIONS: ENFORCEMENT

These additional items have been identified since the February 25, 1994 list.

Section 80.41(h)(2)(iii) incorrectly references § 80.101(g); the correct reference is to § 80.101(h).

In § 80.42(b)(3), the simple model winter toxics equations for FORM and ACET incorrectly include EXHVOCS1; EXHVOCS1 should be replaced with EXHVOCW.

Section 80.42(j)(2) refers to paragraph (j)(1)(i) that does not exist.

Section 80.45(f)(1) incorrectly references paragraphs (a), (c) and (d); this list should read "(c), (d) and (e)".

TAME should be included in § 80.65(e)(2)(ii)(A).

Sections 80.65(f)(1)(i) and (ii)(C) are missing the suffix in § 80.46.

Section 80.69(b)(3) incorrectly refers to § 80.67(e); the correct reference is to § 80.67(f).

Section 80.70(j)(14)(xvii) lists "Richmond County;" this should be replaced by "Richmond City" because Richmond County is an ozone attainment area and is not part of the Richmond-Petersburg ozone nonattainment area.

Section 80.81(h) incorrectly refers to § 80.66; the correct reference is to § 80.46.

Section 80.90(e)(2) incorrectly refers to itself; "... in paragraph (e)(2) of this ..." should be replaced by "... in paragraph (e)(1) of this ..."

In the equation for Method 2 in § 80.91(e)(2)(iv), N_{ps} should be replaced by n_{ps} ; n_s should be replaced by N_s ; and p_i should be replaced by p_{ps} .

In § 80.91(e)(4)(i), the equations for UR and BR should have terms divided by 100 in order to convert percents to fractions.

Regulation of Fuels and Fuel Additives
Standards for Reformulated and Conventional Gasoline

"Technical" Issues Re: RFG Certification

ISSUES REQUIRING CORRECTION

§80.42(c) Simple Model, Limits (p. 557)

- The 10 - 45 vol % range for aromatics should be made consistent with the range used in the Complex Model. As stated currently, it is more restrictive.
- The oxygenate content range of 0 - 3.5 vol % should be changed to an oxygen content range of 0 - 4 weight %. (Emphasis underlined.) The wider range recognizes the variability in the density of gasoline blendstocks that is inherent in translating the legal limit for ethanol in gasoline (10 volume %) from a volume basis to a weight basis.

§80.45 (b)(3) Complex Model baseline emissions (p. 560)

- Calculation of Winter toxics baseline for aldehydes and POM needs to be made consistent with the approach used in the Simple Model. The RIA describes the procedure used to determine the Complex Model winter baseline toxics emissions:
 - (a) The Complex Model database is used to determine corrected ratios of Toxic/VOC for each of the individual toxics.
 - (b) These ratios are then multiplied by the appropriate winter VOC baseline to determine the baseline emissions level for each of the five toxics.

While this approach is not incorrect for benzene and 1,3-butadiene, which are believed to be emitted as a constant percentage of the total VOC for both summer and winter, it is incorrect for formaldehyde, acetaldehyde, and POM, which are believed by EPA and others to be emitted at a constant level for both summer and winter. Note that the baseline values described in the RIA for the Simple Model for formaldehyde, acetaldehyde and POM were developed using the assumption of constant levels for summer and winter.

The correct baseline values for formaldehyde, acetaldehyde, and POM can be calculated by multiplying each of the individual winter Toxic/VOC ratios (shown in the RIA) by the baseline VOC determined by inputting the winter baseline fuel into the summer Complex Model for VOC.

§80.45(c)(1)(iv)(C) Linear Extrapolations (Page 568-569 for Phase 1) Part (5)

- Setting E300 to 95 when target fuel E300 is greater than 95 is incorrect for the VOC model. The E300* edge target is correctly set by Part (6) based on the equation based on aromatics. Part (5) is apparently confusing the overall CM E300 edge of 95 for fuels with an E300 between 95 and 100. The "flat line" extrapolation on E300* is described in part (iii).
- Part (13) incorrectly sets a $\Delta E300$ for high E300 levels and should be omitted. As described in Part (iii), E300* at high levels is a "flat line" extrapolation not a linear extrapolation. Part (14) should be revised as: "If the E300 level of the target fuel equals or exceeds 72 volume percent, then $\Delta E300$ shall be set equal to zero."
- These comments also apply to the Phase 2 E300 extrapolation (§80.45(c)(1)(iv)(D) Linear Extrapolations (Page 569-571 for Phase 2).

§80.45(c)(3)(i) (VOC Region 1 - Phase 1 evaporative VOC equations - Page 572)

- The sign on the first order RVP term in running loss equation should be "+":

$$\text{VOCRL1} = [0.00279 \times (\text{RVP}^2)] + [0.1096 \times \text{RVP}] - 0.7340$$

§80.45(c)(3)(ii) (VOC Region 1 - Phase 2 evaporative VOC equations - Page 572-573)

- Incorrect coefficients in the hot soak (first order RVP term) and refueling (first order RVP term) equations (change marked in bold and underlined).

$$\text{VOCHS1} = [0.006654 \times (\text{RVP}^2)] - [0.08094 \times \text{RVP}] + 0.2846$$

$$\text{VOCRF1} = [0.004767 \times \text{RVP}] + 0.011859$$

NOx Model

§80.45(d)(1)(iv)(A) and (B) Linear Extrapolations (Pages 579-580)

- Table 7 incorrectly contains an E300 entry. Part (B) also references E300 in the text. The equations correctly do not include an E300 extrapolation.

The $Y_{\text{NO}_x}(t)$ equation for both the Phase 1 and 2 models is missing the term for the first order sulfur term for high emitters. The $Y_{\text{NO}_x}(t)$ terms for both Phase 1 and 2 should be modified as follows (change marked in bold and underlined).

For Phase 1:

$$\begin{aligned}
 Y_{\text{NOx}}(t) = & 100\% \times 0.82 \times [\exp(n_1(\text{et}))/\exp(n_1(\text{b})) - 1] + \\
 & 100\% \times 0.18 \times [\exp(n_2(\text{et}))/\exp(n_2(\text{b})) - 1] + \\
 & \{100\% \times 0.82 \times [\exp(n_1(\text{et}))/\exp(n_1(\text{b}))]\} \times \\
 & \{[(-0.00000133 \times \text{SUL}_{\text{et}}) + 0.000692] \times \Delta\text{SUL}\} + \\
 & \{[(-0.000238 \times \text{ARO}_{\text{et}}) + 0.0083632] \times \Delta\text{ARO}\} + \\
 & \{[(0.000733 \times \text{OLE}_{\text{et}}) - 0.002774] \times \Delta\text{OLE}\} + \\
 & \{100\% \times 0.18 \times [\exp(n_2(\text{et}))/\exp(n_2(\text{b}))]\} \times \\
 & \{0.000252 \times \Delta\text{SUL}\} + \\
 & \{[(-0.0001599 \times \text{ARO}_{\text{et}}) + 0.007097] \times \Delta\text{ARO}\} + \\
 & \{[(0.000732 \times \text{OLE}_{\text{et}}) - 0.00276] \times \Delta\text{OLE}\}
 \end{aligned}$$

For Phase 2:

$$\begin{aligned}
 Y_{\text{NOx}}(t) = & 100\% \times 0.738 \times [\exp(n_1(\text{et}))/\exp(n_1(\text{b})) - 1] + \\
 & 100\% \times 0.262 \times [\exp(n_2(\text{et}))/\exp(n_2(\text{b})) - 1] + \\
 & \{100\% \times 0.738 \times [\exp(n_1(\text{et}))/\exp(n_1(\text{b}))]\} \times \\
 & \{[(-0.00000133 \times \text{SUL}_{\text{et}}) + 0.000692] \times \Delta\text{SUL}\} + \\
 & \{[(-0.000238 \times \text{ARO}_{\text{et}}) + 0.0083632] \times \Delta\text{ARO}\} + \\
 & \{[(0.000733 \times \text{OLE}_{\text{et}}) - 0.002774] \times \Delta\text{OLE}\} + \\
 & \{100\% \times 0.262 \times [\exp(n_2(\text{et}))/\exp(n_2(\text{b}))]\} \times \\
 & \{0.000252 \times \Delta\text{SUL}\} + \\
 & \{[(-0.0001599 \times \text{ARO}_{\text{et}}) + 0.007097] \times \Delta\text{ARO}\} + \\
 & \{[(0.000732 \times \text{OLE}_{\text{et}}) - 0.00276] \times \Delta\text{OLE}\}
 \end{aligned}$$

Toxics Model

§80.45 (e)(1)(ii) Summer toxics performance (Page 582).

- The Phase 1 summer toxics performance in VOC Region 2 base should be **47.58** instead of 47.59 (consistent with Table 5 on page 561). The revised equation should be (changes marked in bold and underlined):

$$\text{TOXICS2\%} = [100\% \times (\text{TOXICS2} - \underline{\mathbf{47.58}} \text{ mg/mi})]/(\underline{\mathbf{47.58}} \text{ mg/mi})$$

§80.45 (e)(3) Year-round toxics performance (Page 587-588).

- This entire item appears to be incorrect and unnecessary. This section should be deleted because the compliance calculation for averaged standards (including toxics which is an annual average) is contained in §80.67(g) Compliance Calculation (pages 698-700).

Limits of the Model

§80.45(c)(1)(iii)(A) and (B) Flat Line Extrapolations (Clarification needed) (Page 564)

- The entire description of the extrapolation edge targets and Δ values needs clarification. The attached Table 1 summarizes the property limits and extrapolation ranges and types for all the RFG specification models based on the EPA Complex Model spreadsheet equations.
- The last sentence (page 564) for each phase describing using the linear extrapolation model for E300* values greater than 94 is misleading, and may not be correct. E300* is an edge target which is capped by the appropriate equation (based on aromatics level) to a maximum of 94. The E300* cap is a "flat line" extrapolation and not part of the "linear" extrapolations described in part (iv) of the same section.

§80.45 (f) Limits of the Model (Pages 599-601).

- This section fails to provide for legal reformulated and conventional gasoline winter RVP levels. The RVP range of 6.4 - 10.0 psi for reformulated gasoline (6.4 - 11.0 psi RVP for conventional gasoline) excludes legal winter gasolines. An exemption for higher RVP (up to 15 psi) winter gasoline must be added to the rule to accommodate legal reformulated and conventional gasolines that exceed 10-11 psi RVP maximum. In non-legal terms, a possible addition to this section might be:

(iii) The RVP range for reformulated and conventional gasolines in parts (i) and (ii) apply only to summer periods when VOC controlled gasolines are required. During the winter, 8.7 psi is used in the complex emissions model to certify reformulated gasoline and conventional gasoline for anti-dumping and the actual fuel RVP property is permitted to increase to legal limits.

Table 1 - EPA Complex Model Limits for RFG

With the following extrapolations:
 E200, E300 and Aromatics for VOC's
 Sulfur, Aromatics and Olefins for NO_x

	Overall Limits		VOC Model ¹		NO _x Model		Toxics Model	
	Min	Max	Min	Max	Min	Max	Min	Max
MTBE Oxygen, wt% (MTBE)	0.0	3.7	0.0	3.7	0.0	3.7	0.0	3.7
Sulfur, wppm	0	500	0	500	10	450	0	500
RVP, psi	6.4	10.0	6.4	10.0	8.7 psi in Winter	8.7 psi in Winter	6.4	10.0
E200, % off	30.0	70.0	33.0 (Ph. 2)	65.8 (65.5)	33 to 30	70.0	30.0	70.0
E300, % off	70.0	100.0	72.0	94.0	72 to 70 Flat: 94* to 100	70.0	70.0	95.0
Aromatics, vol%	0.0	50.0	18.0	46.0	18 to 10 Flat: 10 to 0 Linear: 46 to 50	18.0 (Ph. 2)	10.0	50.0
Olefins, vol %	0.0	25.0	0.0	25.0	Linear: 19 to 25 Flat: 3.8 to 0	3.8	19.0	25.0
Benzene, vol %	0.0	2.0					0.0	2.0
Other Oxygen, wt%	0.0	3.7					0.0	3.7

* Or maximum based on the following equations up to an E300 of 94% off.

- 1) Phase 1: $60.32 + (0.390 \times \text{Aromatics})$
- 2) Phase 2: $79.75 + (0.365 \times \text{Aromatics})$



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ANN ARBOR, MICHIGAN 48105

ATTACHMENT

OFFICE OF
AIR AND RADIATION

6

Mr. Robert Greco
American Petroleum Institute
1220 L St, NW
Washington, DC 20005

Dear Mr. Greco:

As you know, the Environmental Protection Agency (EPA) promulgated final regulations for the reformulated gasoline program on December 15, 1993 and published them in the Federal Register on February 16, 1994 (59 FR 7715). Review of the final regulations, both within EPA and by outside parties, has identified several errata in the regulations as published in the Federal Register (e.g., typographical errors, omissions and inconsistencies). For instance, in an April 13, 1994 letter to Richard Wilson, Director of EPA's Office of Mobile Sources, the American Petroleum Institute (API) highlighted what it believes are errors in the regulations.

EPA also believes that several areas of the regulation would benefit from clarification. EPA believes that modification of these provisions would help ensure smooth implementation of and compliance with the rule while maintaining the environmental goals of the program. The aforementioned API letter also outlined several issues which API believes require clarification for smooth implementation of the reformulated gasoline program.

The enclosure lists those items EPA seeks to correct and/or clarify, as well as EPA's planned action relating to each item. Those items which warrant further explanation are briefly discussed.

EPA believes that a Direct Final Rulemaking (DFRM) is the most appropriate means of correcting and/or clarifying the items listed in the enclosure because EPA's intended changes are not expected to substantively impact the rule, nor the environmental goals of the program, and thus are not expected to be controversial. Furthermore, timely changes are necessary because of the deadline for individual baseline submissions (generally June 1, 1994), and the commencement of the reformulated gasoline program (December 1, 1994).

The purpose of this letter is to obtain your view on whether the changes listed are in fact noncontroversial and, thus, appropriate for inclusion in a DFRM. Your response, however, in no way limits your ability to comment later on any aspect of the DFRM. By soliciting comments from you and other interested parties at this time, we hope to exclude from the DFRM those items that are likely to be controversial and therefore not appropriate for a DFRM.

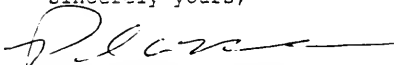
If EPA proceeds with a DFRM, the actions contained therein will be effective 60 days after publication in the Federal Register. However, if notice is received within 30 days of publication that adverse or critical comment will be submitted, or that an opportunity to submit such comment at a public hearing is requested, EPA will withdraw the specific provision(s) identified by the commenter. EPA may or may not pursue the withdrawn provisions via the normal rulemaking process at a later date. All provisions in the DFRM which are not adversely commented on will become effective in 60 days.

As stated, we are soliciting your comment in advance of issuing the DFRM, and would appreciate your response no later than April 27, 1994. Comments should be directed to: Mr. Dave Korotney, U.S. EPA, Fuel Studies and Standards Branch, 2565 Plymouth Road, Ann Arbor, MI 48105. You may also fax your comments (313-741-7816). If you have questions concerning this letter, please contact Mr. Korotney at (313) 668-4507.

Please note that corrections and clarifications of other portions of the reformulated gasoline regulations (such as enforcement provisions concerning reformulated and conventional gasoline) may be included in the DFRM even though they are not listed or discussed in the enclosure.

Thank you again for your continued interest and involvement in the reformulated gasoline program.

Sincerely yours,


for Chester J. France, Director
Regulation Development and Support Division

Enclosure



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
ANN ARBOR MICHIGAN 48105

OFFICE OF
AIR AND RADIATION

Mr. Robert Greco
American Petroleum Institute
1220 L St, NW
Washington, DC 20005

Dear Mr. Greco:

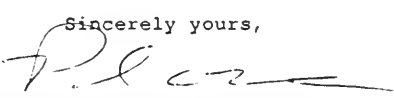
Recently we sent you a set of items that the Environmental Protection Agency (EPA) is considering correcting and/or clarifying in a Direct Final Rule. The issues were sent to you to determine if any of the items might be adversely commented on, and therefore would not be appropriate for inclusion in a Direct Final Rule.

Page 12 of the list of issues that you received contained two items that should not have been included in that list. Enclosed you will find a corrected version of page 12 of the issues list. Please replace your page 12 with the one enclosed with this letter.

Comments concerning any of the items should still be sent to the EPA by April 29, 1994 through Mr. David Korotney, U.S. EPA, Fuel Studies and Standards Branch, 2565 Plymouth Road, Ann Arbor, MI 48105. You may also fax your comments (313-741-7816). If you have any questions, please contact Mr. Korotney at (313) 668-4507.

Thank you again for your continued interest and involvement in the reformulated gasoline program.

Sincerely yours,


Chester J. France, Director
Regulation Development and Support Division

Enclosure

EnclosurePotential Direct Final Rulemaking IssuesClass 1: Errata requiring explanation.

1. REGULATION REFERENCE: 80.42(c)(1)

ISSUE: The valid range limits for RVP in the Simple Model are more restrictive than those for the Complex Model.

CHANGE: Change the lower limit of RVP in the Simple Model from 6.6 psi to 6.4 psi.

EXPLANATION: Since RVP is controlled under the Simple Model, and the change would only affect cleaner fuels by allowing them to be certified, the change should not adversely affect the environment at all. As for driveability, there is no incentive to go lower in RVP than the Simple Model requirements. The change allows California reform to be certified outside of California, and maintains consistency throughout Phase I of the program.

2. REGULATION REFERENCE: 80.42(c)(1)

ISSUE: The valid range limits for aromatics and benzene in the Simple Model are more restrictive than those in the Complex Model.

CHANGE: Raise the high end of the valid range for aromatics in the Simple Model from 45 vol% to 55 vol%, and raise the high end of the valid range for benzene from 2.5 vol% to 4.9 vol%.

EXPLANATION: This change would ensure that the Simple Model could be used for as many conventional fuels as possible to show compliance under the anti-dumping program without the need to extend the valid range (see item #7 below). The change would not affect RFG compliance, since both benzene and aromatics are controlled by the RFG standards for benzene and toxics. Also, consistency would be maintained throughout Phase I of the reformulated gasoline program. This change would extend the Simple Model's linear relationship for benzene and aromatics to these new limits for the valid range. Note that the Complex Model also contains a linear relationship for these two parameters in the extended portion of the Simple Model valid range.

3. REGULATION REFERENCE: 80.45(e) (3)

ISSUE: The calculation of year-round toxics performance is not performed on an individual refiner's volume-weighted basis, but rather on a fixed (average) volume-weighted basis.

CHANGE: Since the correct calculation methodology for year-round toxics is given in 80.67(g), paragraph 80.45(e) (3) will be revised to reference 80.67(g).

EXPLANATION: The year-round toxics calculation methodology described in 80.45(e) (3) was used to set the standards, and should not have been included in the regs for certification calculations. The change restores the Agency's intent for the proper calculation methodology.

4. REGULATION REFERENCE: 80.91(d) (1) (i) (A) (1)

ISSUE: Present definition of "summer month" and "winter month" severely restricts or eliminates the winter period for some refiners, refineries or importers, and inappropriately sends winter data to the summer calculation and vice versa.

CHANGE: Redefine "summer month" and "winter month" for data purposes. For months with both summer and winter fuel production, require data on actual "summer" or "winter" gasoline, when available, to be used in the summer or winter calculation, respectively. If such data is unavailable, a summer month would be any month in which half of the gasoline produced meets summer volatility standards. A winter month would be any month which is not a summer month.

EXPLANATION: Reduces or eliminates unavailability of "winter" gasoline data. Use of actual seasonal data in the correct seasonal calculation of fuel parameters increases accuracy of the baseline determination. Where actual data is unavailable, 50 percent requirement for defining which data goes to which seasonal calculation also increases accuracy of the baseline determination relative to current definitions of "summer" and "winter".

5. REGULATION REFERENCE: 80.91(e) (5) (viii)

ISSUE: Work-in-progress (WIP) caps on fuel parameters under the simple model are inconsistent with the caps under the complex model and add an unnecessary and inconsistent secondary level of control on emission performance.

CHANGE: Delete simple model fuel parameter caps in section 80.91(e) (5) (viii). Set WIP simple model parameter caps for each

WIP, using the complex model Clean Air Act baseline emissions limits.

EXPLANATION: EPA intended to allow WIP adjustments to relieve severe hardship where the adjustment did not allow emissions to increase significantly relative to the Clean Air Act baseline. The methods EPA chose to constrain WIP adjustments had inconsistent effects depending on simple model or complex model use. This modification would ensure that the fuel parameter constraints on WIP adjustments under the simple model would be more consistent with the emissions performance constraints under the complex model.

6. REGULATION REFERENCE: 80.91(e) (7)

ISSUE #1: The final regs were intended to allow baseline adjustments to relieve the burden for those refiners with significant 1990 JP-4 production. Significant was defined in the regs as a 1990 JP-4 production to 1990 gasoline production ratio which equaled or exceeded 0.5. In addition, adjustments were limited mainly to single refinery refiners. As it turns out, few refiners which produced JP-4 in 1990 (and meet the other requirements specified for a JP-4 baseline adjustment) will qualify for the needed relief under the final regs.

CHANGE: Alter the 1990 JP-4 to gasoline production ratio from 0.5 to 0.2. Extend the provisions to multi-refinery refiners as long as they meet the same JP-4 to gasoline production ratio criteria.

EXPLANATION: Consistent with the intent of the provisions.

7. REGULATION REFERENCE: 80.91(f) (2) (ii)

ISSUE: The regs allow but do not specify the conditions and limitations for using the Complex Model outside of the valid range limits for conventional gasoline should a refiner's individual baseline contain a parameter which falls outside the valid range limits specified in 80.45(f)(1)(ii). Furthermore, no provisions were promulgated for using the Simple Model under these conditions.

CHANGE: Under either the Simple Model (for aromatics and benzene) or the Complex Model, the valid range limits for conventional gasoline will be extended for a given fuel parameter in the following manner for both baseline and compliance determination: The use of either model outside the valid ranges specified in the regulations (i.e. use of either model within the "extended" valid ranges) will be limited to flat-line extrapolations from the end of the specified valid ranges, wherein no emission benefit or detriment is given. Flat-line extrapolation for the purposes of extending the valid range limits is equivalent to entering a value

into the Complex Model for the fuel parameter being extended which is equal to the end of the valid range specified in the regulations.

For compliance purposes for those baseline parameters outside the valid range, individual batches of fuel will be permitted to exceed the baseline level, but with the following constraints. The extended limits will be set equal to the value of the refiner's individual baseline plus the fixed values shown below for extending the high end of the valid range, or minus the values shown below for extending the low end of the valid range:

Oxygen	0.4 wt%
Sulfur	100 ppm
RVP	1.0 psi
E200	5.0 %
E300	5.0 %
Aromatics	6.0 vol%
Olefins	3.0 vol%
Benzene	0.5 vol%

EXPLANATION: This change will minimize the reformulation of conventional gasoline under both the Simple and Complex Models, in accord with the Agency's original intent.

-----END Class 1-----

Class 2: Errata requiring little or no explanation as there is only one possible change available to correct these errors. In most cases, new language is indicated in large, bold print. In some cases, deleted language is included within large, bold unequal signs < > to assist the reader. A "Typo" is a typographical error resulting from an inadvertent omission or mistake.

Regulation Reference	Change	Reason for Change
80.42(c)(1) & 80.45(f)(1)	Change the high end of the valid range for oxygen content from 3.7 wt% to 4.0 wt% to account for lower density ethanol blends in the winter season for both the Simple and Complex Models.	Clarify Agency intent
80.45(c)(1) (iv)(C)(5) & 80.45(c)(1) (iv)(D)(5)	Change paragraph to read, "If the E300 level of the target fuel is greater than 95 volume percent, then the E300 value of the <edge> target fuel shall be set equal to 95 volume percent for the purpose of calculating VOC emissions. "	Typo in linear extrapolation procedure
80.45(c)(1) (iv)(C)(9) & 80.45(c)(1) (iv)(D)(9) & 80.45(d)(1) (iv)(C)(9)	Change the last sentence to read, "If the aromatics level of the target fuel is less than 10 volume percent, then ΔARO shall be set equal to -8 volume percent."	Typo (sign of ΔARO value) in linear extrapolation procedure
80.45(c)(1) (iv)(C)(13) & 80.45(c)(1) (iv)(D)(13)	Change the first sentence to read, "If the E300 level of the target fuel is greater <less> than 94 percent and [80.32+(0.390xARO)] also is greater than 94, then ΔE300 shall be set equal to (E300 - 94 percent)."	Typo in linear extrapolation procedure

80.45(d) (1) (iv) (C) (5)	Change paragraph to read, "If the E300 level of the target fuel is greater than 95 volume percent, then the E300 value of the <edge> target fuel shall be set equal to 95 volume percent for the purpose of calculating NOx emissions."	Typo in linear extrapolation procedure
80.45(c) (3) (i)	Change equation for VOCRL1 to read, "VOCRL1=[0.00279x(RVP ²)]+[0.1096xRVP]-0.7340"	Typo (sign of second term)in VOC nonexhaust equation
80.45(c) (3) (ii)	Change equation for VOCHS1 to read, "VOCHS1=[0.006654x(RVP ²)]-[0.08094xRVP]+0.2846" Change equation for VOCRF1 to read, "VOCRF1=[0.004767xRVP]+0.011859"	Typo (coefficients) in VOC nonexhaust equations
80.45(c) (4) (ii)	Change equation for VOCRL2 to read, "VOCRL2=[0.016169x(RVP ²)]-[0.17206xRVP]+0.56724"	Typo (sign of second term) in VOC nonexhaust equation

80.45(d) (iv) (B)	<p>Change the Phase I equation to read,</p> $Y_{\text{max}}(t) = 100\% \times 0.82 \times [\exp(n_1, (et))] / \exp(n_1, (b)) - 1] \\ + 100\% \times 0.18 \times [\exp(n_2, (et))] / \exp(n_2, (b)) - 1] \\ + (100\% \times 0.82 \times [\exp(n_1, (et))] / \exp(n_1, (b))] \\ \times [((-0.00000133 \times \text{SUL}_{\text{st}}) + 0.000692) \times \Delta\text{SUL}] \\ + [((-0.000238 \times \text{ARO}_{\text{st}}) + 0.0083632) \times \Delta\text{ARO}] \\ + [(0.000733 \times \text{OLE}_{\text{st}}) - 0.002774] \times \Delta\text{OLE}} \\ + (100\% \times 0.18 \times [\exp(n_2, (et))] / \exp(n_2, (b))] \\ \times [(0.000252 \times \Delta\text{SUL}) + \\ + [(-0.0001599 \times \text{ARO}_{\text{st}}) + 0.007097] \times \Delta\text{ARO}] \\ + [(0.000732 \times \text{OLE}_{\text{st}}) - 0.00276] \times \Delta\text{OLE}} \\]$ <p>Change the Phase II equation to read,</p> $Y_{\text{max}}(t) = 100\% \times 0.738 \times [\exp(n_1, (et))] / \exp(n_1, (b)) - 1] \\ + 100\% \times 0.262 \times [\exp(n_2, (et))] / \exp(n_2, (b)) - 1] \\ + (100\% \times 0.738 \times [\exp(n_1, (et))] / \exp(n_1, (b))] \\ \times [((-0.00000133 \times \text{SUL}_{\text{st}}) + 0.000692) \times \Delta\text{SUL}] \\ + [((-0.000238 \times \text{ARO}_{\text{st}}) + 0.0083632) \times \Delta\text{ARO}] \\ + [(0.000733 \times \text{OLE}_{\text{st}}) - 0.002774] \times \Delta\text{OLE}} \\ + (100\% \times 0.262 \times [\exp(n_2, (et))] / \exp(n_2, (b))] \\ \times [(0.000252 \times \Delta\text{SUL}) + \\ + [(-0.0001599 \times \text{ARO}_{\text{st}}) + 0.007097] \times \Delta\text{ARO}] \\ + [(0.000732 \times \text{OLE}_{\text{st}}) - 0.00276] \times \Delta\text{OLE}} \\]$	<p>Typo (missing term) in NOx linear extrapolation equation</p>
80.42(c) (1)	<p>In the table, change the valid range limits for "Oxygenate" in volume percent to valid range limits for "Oxygen" in weight percent.</p>	<p>Typo in Simple Model valid range limits</p>
80.42(a)	<p>Change the definition of exhaust VOC from nonmethane hydrocarbons to nonmethane, nonethane hydrocarbons.</p>	<p>Typo in Simple Model variable definitions</p>

80.45(e)(1) (ii)	<p>Replace the total toxics equations for regions 1 and 2 with the following:</p> <p>In Phase I, $\text{TOXICS2} = [100 \times (\text{TOXICS2} - 47.58 \text{ mg/mi})] / (47.58 \text{ mg/mi})$</p> <p>In Phase II, $\text{TOXICS1} = [100 \times (\text{TOXICS1} - 86.34 \text{ mg/mi})] / (86.34 \text{ mg/mi})$</p>	Typo (baseline values rounded incorrectly) in total toxics equations
80.45(e)(9) & 80.45(e)(10)	<p>In the equations only, the variable "HSVOC1" is changed to "VOCHS1", the variable "DIVOC1" is changed to "VOCDI1", the variable "RLVOC1" is changed to "VOCDL1", the variable "RFVOC1" is changed to "VOCRF1", the variable "HSVOC2" is changed to "VOCHS2", the variable "DIVOC2" is changed to "VOCDI2", the variable "RLVOC2" is changed to "VOCDL2", the variable "RFVOC2" is changed to "VOCRF2".</p>	Typos in nonexhaust variable names
80.90(b)(1)	<p>In the equation, change the "X" in the variable "BX" to "Z".</p>	Typo
80.90(e)(2)	<p>Change to read, "The annual average baseline NOx emissions of the facility shall be determined using the emissions values determined in paragraph (e)(1)..."</p>	Typo
80.91(c)(5) (iv)-NEW	<p>Insert new language to read, "The annual average anti-dumping statutory baseline shall have the following set of emissions values: Exhaust Benzene, Simple Model--6.45 Exhaust Benzene, Complex Model (mg/mile)--33.03 Exhaust Toxics, Phase I (mg/mile)--50.67 NOx, Phase I (mg/mile)--714.4 Exhaust Toxics, Phase II (mg/mile)--104.5 NOx, Phase II (mg/mile)--1461."</p>	Clarification. Inserted for easier reference.

80.91(d) (1) (i) (B)	Change last sentence to read, "In any case, all data collected through the date of collection of the last data point included in the determination of a baseline fuel parameter value must be utilized in the baseline determination of that fuel parameter."	Clarification of Agency intent.
80.91(e) (2) (iv)	In the equation only, the variable "N _j " is changed to "n _j ", the variable "n _j " is changed to "N _j ", the variable "p _j " is changed to "P _j ".	Type
80.91(e) (2) (iv)	Change definition of T _j to read, "T _j " = total 1990 volume of blendstock j the refinery and used in the refinery's season s gasoline"	Clarification of intent-- blendstock not limited to those produced.
80.91(e) (2) (v) (A)	Change definition of T _j to read, "T _j " = total 1990 volume of blendstock j the refinery and used in the refinery's season s gasoline"	Clarification of intent-- blendstock not limited to those produced.
80.91(e) (4) (i) (A)	Change equation to read, $UV = [AV/(100-OV)] \times 100$	Corrects equation.
80.91(e) (4) (i) (B)	Change equation to read, $UR = [BR - (\sum(OV_i \times OR_i)) / 100] / [(100 - \sum OV_i) / 100]$	Corrects equation.
80.91(e) (4) (ii) (A)	Change equation to read, $AV = UV \times (100 - OV) / 100$	Corrects equation.
80.91(e) (4) (ii) (A)	Change definition of UV to read, UV = non-oxygenated parameter value	Type

80.91(e) (4) (ii) (B)	Change equation to read, $BR = \frac{URx[100 - \sum(OV_i)] + \sum(OV_{xOR_i})}{100}$	Corrects equation.
80.91(e) (5) (vi)	Change last sentence to read, "Such data shall be used in the determination of the baseline value, due to the work-in-progress, of each of the fuel parameters specified in §80.91(a)(2)(i) and as verification of the effect of the work-in-progress."	Clarifies that WIP value needs to be determined for each fuel parameter.
80.91(e) (5) (vi) (A) -NEW	Insert new language to read, "The baseline value, due to the work-in-progress, of each of the fuel parameters specified in §80.91(a)(2)(i) shall be used in the determination of the emissions specified in §80.90."	Clarifies that anti-dumping baseline emissions to be calculated with WIP values.
80.91(e) (5) (vi) (B) -NEW	Insert new language to read, "The baseline values of sulfur, olefins and E300, due to the work-in-progress, shall be used in the determination of the emissions specified in §80.41(j)(3)."	Clarifies that RFG early complex model standards to be determined using WIP values.
80.91(e) (5) (vii)	Change to read, "The annual average baseline values of exhaust benzene emissions, per §80.90(b) and §80.90(c), exhaust toxics emissions, per §80.90(d), and NOx emissions, per §80.90(e), are the values resulting from the work-in-progress baseline adjustment, not to exceed the larger of:"	Clarifies that WIP anti-dumping emissions are subject to caps.

80.91(e) (5) (viii)	Change to read, "When compliance is achieved using the simple model, per \$80.41 and/or \$80.101, the baseline values of sulfur, olefins and T90 are the values resulting from the work-in-progress baseline adjustment, not to exceed the larger of:"	Clarifies that for simple model compliance for RFG or CG, WIP values for sulfur, olefins, T90 are subject to caps.
80.91(g)	Move to 80.91(d) (7) and change to read, "Inability to <meet the requirements of this section> determine a baseline fuel parameter value . If a refiner or importer is unable to determine a baseline value for one or more of the fuel parameters specified in paragraph (a)(2), as applicable, <comply with one or more of the requirements specified in paragraphs (a) through (f) of this section> it may, upon petition and approval, accommodate the inability <lack of compliance> in a reasonable, logical, technically sound manner, considering the appropriateness of the alternative. A narrative of the situation, including documentation of the calculations and results, must be included."	Clarification of intent by moving to different location and changing referenced paragraphs.
80.93(a) (3) (ii) (C)	Change first sentence to read, " <Auditor-verified> Petitions, 'showings' and other associated proof may be submitted to EPA prior to submittal of the individual baseline (per paragraphs (a) (1) and (a) (2) of this section).	Clarification that petitions do not have to be auditor-verified.

80.93(a) (3) (iv)-NEW	<p>Insert new language to read, "Petitions submitted prior to the deadline for baseline submittal shall be submitted to EPA at the following address: Fuel Studies and Standards Branch, Baseline Petition, U.S. EPA, 2565 Plymouth Rd., Ann Arbor, MI 48105."</p>	Clarification of where to send petitions.
80.93(b) (5) (i)	<p>Change to read, "Individual baseline fuel parameter values, per §80.91, as follows: (A) On an oxygenated basis, separately for summer and winter; (B) On a nonoxygenated basis, separately for summer and winter; (C) Annual average values for sulfur, olefins and T90, per §80.90, on an oxygenated basis."</p>	Clarification that annual average values are needed for sulfur, olefins, T90.
80.93(b) (6) (i)	<p>Change last sentence to read, "Such information shall include the annual average baseline values for the emissions specified in paragraph (b) (5) (ii) of this section and 125% of the annual average individual oxygenated baseline value for sulfur, olefins and T90 specified in paragraph (b) (5) (i) (C) of this section."</p>	Clarifies which baseline information will be published.
80.93(b) (6) (ii)	<p>Change last sentence to read, "Information included in the baseline submission per paragraph (b) (5) of this section which is subject to publication per paragraph (b) (6) (i) of this section shall not be considered confidential."</p>	Clarifies that information to be published is not considered confidential.
80.93(c) (10)	<p>Change to read, "Refinery Information. The following information, on a summer and <or> winter basis, shall be provided:"</p>	Typo.

Revised Page] 12

80.93(a)(3) (iv)-NEW	<p>Insert new language to read, "Petitions submitted prior to the deadline for baseline submittal shall be submitted to EPA at the following address: Fuel Studies and Standards Branch, Baseline Petition, U.S. EPA, 2565 Plymouth Rd., Ann Arbor, MI 48105."</p>	Clarification of where to send petitions.
80.93(b)(5) (i)	<p>Change to read, "Individual baseline fuel parameter values, per §80.91, as follows: (A) On an oxygenated basis, separately for summer and winter; (B) On a nonoxygenated basis, separately for summer and winter; (C) Annual average values for sulfur, olefins and T90, per §80.90, on an oxygenated basis."</p>	Clarification that annual average values are needed for sulfur, olefins, T90.
80.93(c)(10)	Change to read, "Refinery Information. The following information, on a summer and <or> winter basis, shall be provided:"	Typo.

ATTACHMENT

American Petroleum Institute
1220 L Street, Northwest
Washington, D. C. 20005
(202) 682-8240



8



G. William Frick
Vice President
Health, Environment and Safety

May 18, 1994

Mr. Richard D. Wilson, Director
Office of Mobile Sources
U.S. Environmental Protection Agency
401 M Street, SW (ANR-455)
Washington, DC 20460

Dear Mr. Wilson:

The American Petroleum Institute (API) appreciates the hard work you and your staff have devoted to the reformulated gasoline (RFG) program. This is a very complex program and one that will affect every gallon of gasoline sold and every motorist in the United States whether through the RFG requirements themselves or through the antidumping program for conventional gasoline. I think you would agree that the petroleum industry through our active participation in the reg-neg and the subsequent rulemakings has worked cooperatively with EPA to ensure that the RFG program will be workable.

Nevertheless, the industry is faced with a serious challenge due to a number of outstanding issues and the severely constrained lead time for implementing the program. Issuance of the final rule last December left the industry with only 9-10 months before RFG production is likely to begin. And, there are still portions of the program that either require additional guidance and clarification or that have not yet been decided (e.g., renewable oxygenates and foreign refiner baselines).

The purpose of this letter is to raise several items of immediate concern to your attention and to request a meeting to discuss how to best ensure that the RFG program is implemented smoothly. I can assure you that the industry is making every effort to provide for a smooth transition to RFG. However, we are increasingly concerned that there are issues that must be resolved promptly if the program is to roll out smoothly in 1995, and that our already limited lead time is shrinking even further.

As we saw all too clearly with the low sulfur diesel program, each new regulatory program strains the refining and distribution system. And, the diesel program was simple compared with RFG. To ensure smooth implementation of the RFG program, we must work together to clarify the rule's requirements and to resolve any remaining uncertainties.

In that spirit, I am enclosing a timeline for RFG implementation that we have shared with your staff. They have not disagreed with any of the milestones that we identified. We

Mr. Richard D. Wilson
May 18, 1994
Page 2

hope you will review the timeline as well and that it can serve as a "living" document to help all of us keep our eyes on the target and to clearly define the steps necessary to get there.

I am also attaching recent correspondence with Mary Smith and Chet France which highlights a few of our most immediate concerns. We support EPA's development of a direct final rule to address errors and to resolve inconsistencies in the December 16 final rule. However, it is our understanding that this rule is unlikely to be issued before the beginning of June. In my April 13 letter, we had stressed the industry's need for guidance on these issues by the end of April.

This will not be timely enough to provide the guidance needed for preparation of refiners' baseline information which is due to EPA by June 1. As you will see in the letters, there are several important baseline issues, such as the definition of "winter" and "summer" months for determining the sufficiency of refiners' data, as well as clarification of the baseline for refiners who also are importers. Without this guidance, refiners simply do not know how to prepare their June 1 submissions.

In addition, prompt guidance is crucial in another area. In proposing the use of a new test method for aromatics (i.e., the GC-MS), EPA recognized that this method was not currently in widespread use. Therefore, EPA appropriately provided a two-year period where refiners could continue using ASTM method D 1319-93 if it was correlated to the GC-MS method. However, EPA has not provided sufficient definition of the GC-MS to allow such correlation. If the correlation cannot be done, refiners will have to purchase new equipment, install it, and ensure that it is operating properly. It is highly unlikely that all this can be accomplished by September when some refiners will have to begin RFG production in order to meet EPA's new requirement that RFG be at terminals by December 1. Thus, immediate EPA action regarding this correlation is critical.

Your prompt attention to issues such as those outlined in this letter is essential. We will be contacting you shortly to set up a meeting to address these and other RFG implementation issues that need to be resolved.

Sincerely,



enclosures

cc: Chet France
Mary Smith

CHRONOLOGY--RFG IMPLEMENTATION

- * indicates statutory/regulatory deadline
- E* indicates EPA action item
- I* indicates industry action item
- ✓ indicates completion

1994 CALENDAR

APRIL

- 4/11 ✓Request received from EPA for implementation questions for Q&A document
- 4/15 *E/I* Define reference material for benzene testing program
- 4/21 ✓Foreign refiner baseline proposed rule released
- 4/22 ✓Senate hearing (Baucus) on foreign refiner baselines
- 4/30 *E* Direct final rule on time-sensitive issues needed
- E/I* Benzene Test Tolerance Development:
 - Clarify EPA peak resolution concerns
 - Determine and document D3606-92 peak resolution procedure
 - Finalize lab qualification criteria

MAY

- 5/1 *I* ✓Questions submitted to EPA for Q&A document
- 5/2 *I* ✓Comments submitted to DOE on DOE/Argonne ethanol analyses
- 5/12 ✓Senate Energy Hearing on renewable oxygenate program
- 5/23 EPA public hearing on foreign refiner baselines
- 5/31 *E* EDI implementation guidelines on reporting should be provided by EPA
- 5/31 *E/I* Benzene Test Tolerance Development:
 - Reach full agreement on and distribute testing protocol
 - Procure and package reference materials
 - Nominate participating laboratories

JUNE

- 6/1* *I* Auditor-approved baselines due to EPA
- 6/1 *E* Need EPA guidance on correlating ASTM D1319-93 with GC/MS method for aromatics
- 6/23 *I* Comment Deadline for foreign refiner baseline proposal
- end *E* Final rule on renewable oxygenate program expected
June

JULY

- 7/1 *E* EPA Q&A document released
-- Decision needed on sufficiency of pipeline product codes to satisfy the documentation/disclosure requirements
- 7/1 *E* EPA must finalize hard copy registration form and RFG/anti-dumping report format
- 7/1 *E* Decision on conventional gasoline dye/marker needed by industry for compliance on 1/1/95
-- cannot become effective without six month leadtime
- 7/1 *I* EPA needs industry petitions submitted for in-line blending exemptions (in order to approve by 9/1)
- 7/1 *E* Registration numbers for independent sampling and testing facilities to be issued.

AUGUST

- 8/1 *E* Guidance needed on downgrading procedures, including disposition of interfacial product mixes
- early *E* Refiners purchase new GC-MS equipment to analyze aromatics in RFG
August if (necessary)
-- assumes one month leadtime needed for start-up and calibration prior to analyzing RFG shipments beginning in September
- 8/15 *E/I* Commence benzene testing program in laboratories

late *E* EPA final rule on foreign refiner baselines expected
August

SEPTEMBER

- 9/1* *I* RFG Compliance survey design to EPA
- 9/1 *E* Industry needs baseline approval. If not, baseline submitted in June to EPA should apply until 1/1/96
- 9/1 *E* Industry needs EPA approval of in-line blending petitions
- 9/1 *E* Decision needed on documentation requirements for RFG inventory turnover in the distribution system during transition periods
- 9/1-9/30 Some RFG shipments likely to begin. Independent sampling and testing begins with first RFG batch. (Refiner registration number required on transfer documentation.)

OCTOBER

- 10/15 EPA and API receive benzene testing data from laboratories
- 10/15 *E* Court-imposed deadline for EPA to finalize deposit control additive rule
-- Industry needs preliminary guidance on expected requirements prior to 10/15 to ensure compliance by 1/1/95.

NOVEMBER

- 11/1* *I* Refiner registration with EPA
-- refiners must be registered three months prior to production of RFG or by 11/1/94, whichever is later. (Regulatory requirements will be clarified to require refiners to register prior to shipping their first RFG batches.)
- 11/1* *I* Early use of complex model report for 1995 with baseline values due to EPA

DECEMBER

- 12/1* *I* All terminals serving RFG-covered areas must begin to distribute complying RFG.
- 12/1* *I* Funds for 1995 RFG compliance survey must be in escrow and the survey contract must be in effect.

1995 CALENDAR**JANUARY**

- 1/1* *I* Only RFG can be sold in RFG-covered areas
- 1/1* *I* Anti-dumping requirements effective
- 1/1 *E* Pooled variance for complex model RFG VOC/NOx tolerances needed (to preserve 3 year leadtime)
- 1/1* *I* Data due to EPA from benzene round robin testing program
- 1/1* *I* Interim rule on deposit control additives becomes effective

MAY

- 5/31* *I* Reports due to EPA:
- 1st quarter RFG batch report
 - 1st quarter renewable oxygenate report (if applicable)
 - Computer-controlled in-line blending report
 - 1995 RFG compliance designation report (which parameters are averaged vs. per-gallon, and whether using the simple model or complex model early)

JUNE

- 6/1* *E* EPA completes statistical analysis of benzene test data

JULY

- 7/1* *E* EPA announces new benzene test tolerance

AUGUST

- 8/31* *I* Reports due to EPA:
- 2nd quarter RFG batch report
 - 2nd quarter renewable oxygenate report (if applicable)
 - Computer-controlled in-line blending report

NOVEMBER

- 11/1* *I* Early use of complex model report for 1996 with baseline values due to EPA
- 11/30* *I* Reports due to EPA:
- 3rd quarter RFG batch report
 - 3rd quarter renewable oxygenate report (if applicable)
 - Computer-controlled in-line blending report
 - Simple model RFG RVP averaging report
 - Complex model RFG VOC averaging report

1996 CALENDAR**JANUARY**

- 1/1* New benzene test tolerance becomes effective
- if 7/1/95 announcement of new tolerance is delayed, effective date is also delayed to preserve six month lead time
- 1/1* *I* Final rule on deposit control additives becomes effective

FEBRUARY

- 2/29* *I* Reports due to EPA:
- 4th quarter RFG batch report
 - 4th quarter renewable oxygenate report (if applicable)
 - Computer-controlled in-line blending report
 - 1995 RFG benzene, toxics, oxygen, early use of the complex model, and NO_x averaging reports
 - 1995 per-gallon RFG report
 - 1995 conventional gasoline report
 - Benzene and oxygen RFG credit transfer report for 1995
 - RFG covered area report for 1995
 - 1995 simple model RFG sulfur, T90, and olefins averaging report
 - 1995 renewable oxygenate report (if applicable)

MAY

- 5/30* *I* 1995 attest engagement report for conventional gasoline due to EPA
- 5/31* *I* Reports due to EPA:
- 1995 RFG compliance audit report
 - 1st quarter RFG batch report
 - 1st quarter renewable oxygenate report (if applicable)
 - Computer-controlled in-line blending report
 - 1996 RFG compliance designation report (which parameters are averaged vs. per-gallon, and whether using the simple model or complex model early)

American Petroleum Institute
 1220 L Street, Northwest
 Washington, D C 20005
 202-682-8000



May 18, 1994

Mr. Chester J. France, Director
 Regulation Development and Support Division
 U.S. Environmental Protection Agency
 2565 Plymouth Road
 Ann Arbor, MI 48105

Dear Mr. France:

The American Petroleum Institute (API) provided EPA on April 13 with a list of issues related to the final RFG rule that needed to be addressed in a direct final rule. At that time we expressed the industry's need for guidance on these issues by April 30, particularly the definition of "summer" and "winter" months for baseline determinations. Prompt guidance on issues related to baseline determination was especially crucial, since the deadline for baseline submissions is June 1.

We understand that EPA is moving forward with a direct final rule, and we appreciate the efforts of your staff to provide some resolution to these issues. However, any EPA guidance received even today is too late to incorporate in baselines to be submitted June 1.

Without this formal guidance, refiners have had to assemble their data for establishing baselines on an ad hoc basis. Individual companies have paid hundreds of thousands of dollars and allocated countless man-hours to develop their baselines by June 1. We understand that EPA has already received some baseline submissions, and it is imperative that EPA not penalize refiners for the good faith efforts taken to date.

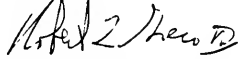
API urges that EPA give refiners the option to revise and resubmit their baselines to take into account the rule changes and clarifications that will occur after EPA issues the direct final rule. However, it is imperative that EPA not compel refiners to revise baselines according to guidance not available while the baselines were being prepared. EPA should also provide refiners with the option of a limited extension of the baseline submittal deadline e.g., one month after the direct final rule is finalized. While this option may not be attractive to refiners that must begin shipping RFG in September, an extension may be of benefit to other refiners with later shipping schedules.

The baseline determinations constitute the first critical date in implementing the RFG program, and API is greatly concerned that the continuing uncertainty over the baseline submissions could adversely impact the smooth introduction of the RFG program. It is in everyone's interest that EPA quickly address these concerns.

Mr. Chester J. France
May 18, 1994
Page 2

We would appreciate a written response as quickly as possible. Please call me at (202) 682-8565 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Greco". The signature is fluid and cursive, with the first name "Robert" and last name "Greco" clearly distinguishable.

Robert Greco
Senior Regulatory Analyst

cc: Richard Wilson

American Petroleum Institute
1220 L Street, Northwest
Washington, D.C. 20005
202-682-8000



May 18, 1994

Ms. Mary T. Smith, Director
Field Operations and Support Division
U.S. Environmental Protection Agency
401 M Street, S.W. (6406J)
Washington, DC 20460

Dear Ms. Smith:

The American Petroleum Institute (API) appreciated the opportunity to submit clarifying questions to EPA related to the RFG rule for inclusion in EPA's upcoming "Q&A document". We understand that EPA intends to issue this document by July 1. API urges EPA to supply this guidance as soon as possible.

In addition to the questions that will be addressed in the Q&A document, API has identified two issues (described below) that require clarification as soon as possible. Resolution of the baseline determination question is particularly critical, since refiners must submit their baselines to EPA by June 1.

Refiner Baseline Determination

The requirements for domestic refiners who import gasoline in 1995 are not clear. Section 80.91(b)(2) states that the compliance baseline is the Clean Air Act default baseline, while §80.101(f)(3) states that the compliance baseline is the refiner's 1990 aggregate baseline. It was our understanding that the approach in §80.91(b)(2) (i.e., the statutory baseline) was the appropriate baseline. Implementation of the latter approach would be contrary to EPA's extensive efforts to prevent "gaming" of baselines, and we are unaware of this option ever being proposed.

GC-MS Correlation for Aromatics

The final RFG rule specifies the use of EPA's GC-MS method for measuring aromatics, but allows the use of ASTM method D 1319-93 for aromatics until January 1, 1997 for the purpose of meeting the industry requirements under 80.65(e), provided that it is correlated with EPA's GC-MS method. According to the preamble of the final rule,

Ms. Mary T. Smith
May 18, 1994
Page 2

"This two year transition period should provide sufficient time for industry to purchase equipment and become familiar with the new method. In addition, during this time period, it is anticipated that EPA and industry can discuss any problems that might arise as a result of the new method being promulgated."

API appreciates that EPA is allowing the use of D 1319-93 for two years, but would like further guidance as to how a correlation with the GC-MS method can be developed at this time. Since EPA's GC-MS method is not fully defined, refiners cannot reasonably develop a correlation with D 1319. Without this correlation, refiners will have no choice but to purchase new equipment, install it, and ensure that it is operating properly. It is highly unlikely that all this can be accomplished by September when some refiners will have to begin RFG production.

Currently we understand that ASTM D02.04 Section M on Mass Spectrometry is re-drafting the GC-MS method in cooperation with EPA staff in Ann Arbor to further define the method. We also understand that the EPA staff in Ann Arbor have conducted some studies in their laboratory which was reported to show a reasonably good correlation between ASTM D 1319-93 and their GC-MS test method.

API recommends that EPA either consider the two methods to be equivalent for now or allow the industry to use a correlation based upon EPA's existing data (if appropriate) until the GC-MS method is refined and a better correlation can be developed. If EPA feels that additional data from D 1319 is needed to develop a correlation with their GC-MS method, it could be provided by industry laboratories.

We have also included an RFG implementation schedule that has been revised based on our discussions. This schedule is intended to be a "living" document, and we hope to periodically review it as we progress towards the start-up of the RFG program.

If you have any questions, please contact me at (202) 682-8565.

Sincerely,



Robert Greco
Senior Regulatory Analyst

enclosure

cc: Richard Wilson



P.O. Box 3758
Tulsa OK 74102-3758

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RECEIVED

CITGO Petroleum Corporation

OL JUN 21 PM 2:57
SUBCOMMITTEE ON
OVERSIGHT AND INVESTIGATION

June 21, 1994

Hon. John D. Dingell, Chairman
Subcommittee on Oversight & Investigations
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Re: Hearing on EPA's Reformulated Gasoline
Rule -- 30% Renewable Oxygenate Mandate

Dear Mr. Chairman:

CITGO Petroleum Corporation applauds your inquiries concerning implementation of EPA's reformulated gasoline (RFG) rule under the 1990 Clean Air Act Amendments. Earlier this month, I testified before Senator Johnston's Committee on the important environmental and energy policy issues presented by EPA's proposed "renewable oxygenate" mandate which, as you know, in effect guarantees a 30% market share for ethanol. CITGO has a unique perspective which we believe may be helpful to your Subcommittee's inquiries. Accordingly, we would appreciate your inclusion of this letter in the record of the Subcommittee's investigation.

CITGO is a large refiner of crude oil and a branded marketer of refined petroleum products, including gasoline, diesel fuel, aviation jet fuel and heating oils. Of direct relevance to your Subcommittee's hearing, CITGO is one of the largest shareholders in Colonial Pipeline, the major refined petroleum product pipeline serving the mid-Atlantic and Northeastern U.S. -- regions where CITGO has a significant market presence and where EPA's ethanol mandate could have some of the most severe adverse price and supply consequences. CITGO's concerns about the potentially dire consequences of EPA's ethanol mandate are based upon our own experience with the supply and logistical problems associated with marketing of ethanol-blended gasolines. During the mid-1980s, CITGO was the Nation's largest marketer of gasohol; thus, we have first-hand experience with the unique supply and logistical demands created by ethanol.

Based upon our experience, CITGO is convinced that EPA's ethanol mandate will have severe supply and price repercussions in the marketplace. Ethanol has several undesirable properties as a motor fuel component, including miscibility with water and the ability to act as a solvent for petroleum residues. Because of these properties,

Hon. John D. Dingell
June 21, 1994
Page 2

gasolines containing ethanol cannot be transported by the national pipeline distribution system for gasoline. These properties also impose special requirements for storage of both ethanol and ethanol-blended gasolines.

The great bulk of the nation's supply of refined petroleum products is shipped by pipelines in which a variety of refined petroleum products are shipped in "batches." These pipelines are the most efficient and cost effective means of shipping large quantities of refined petroleum products and are also the safest and most environmentally benign form of petroleum product transportation.

The inability to ship ethanol-blended gasolines by pipeline will necessitate local terminal blending of ethanol with gasoline blendstocks formulated specifically for this purpose (so-called "RBOB") to produce the oxygenated gasolines mandated by EPA. Several adverse logistical consequences are likely to result from this course:

First, there is a geographic mismatch between supply and demand. The Mid-Atlantic and Northeast regions, which will require ethanol blending under the EPA mandate, are located far from the major domestic ethanol production facilities. These facilities are concentrated in the upper Midwest, near the areas in which the industry's corn-based feedstock is grown. This geographic mismatch will necessitate truck, rail or barge shipment of ethanol supplies from the Midwest to the Mid-Atlantic and Northeast. Weather-related and other interruptions in this flow of ethanol to markets where its use has been mandated is likely to result in spot-shortages of oxygenated gasoline even though adequate supplies of gasoline blendstocks are available.

Second, many of the market areas in which ethanol will have to be blended are not currently equipped to conduct ethanol blending. The terminal facilities that serve these areas lack the segregated storage needed to accommodate large quantities of ethanol. In the case of many of these terminals, legal and/or environmental considerations, or simply a lack of land, will preclude the installation of the additional tankage to permit local ethanol blending. Where that is the case, terminal operators will be forced to reduce the slate of petroleum products they carry in order to permit conversion of existing petroleum product storage to segregated ethanol storage. The reduction in storage is likely to be concentrated on products with historically smaller margins, such as heating oil, and could reduce the availability of these products in the marketplace.

Moreover, where additional tankage can be constructed, including at specialized terminals, the result will be higher costs. Even then, obtaining the

Hon. John D. Dingell
June 21, 1994
Page 3

required construction permits and construction of the additional tankage cannot be completed by the proposed December 1, 1994 terminal conversion date. This would place the industry in the dilemma of choosing whether to comply with the law or permit shortages to occur.

In any event, even if the overall availability of petroleum products remains adequate, changes in distribution patterns induced by EPA's ethanol mandate will have to occur. In simple terms, EPA's mandate for blending of ethanol in gasolines in the Mid-Atlantic and Northeast is likely to result in higher prices, not only for gasolines, but also for the heating oil consumed in these regions.

Third, if the implementation date remains unchanged and marketers act in an economically rational manner, the storage problems associated with ethanol blending are likely to become critical during periods of switch-over between ETBE blends in the summer and ethanol blends in the winter. (Such a winter/summer switch, while inefficient, may be the only way to satisfy the 30% mandate in the first year.) The RBOB required to blend ethanol in the winter will be different from, and must be segregated from, the ETBE blends required in the summer. These fuels cannot be commingled so tankage at both terminals and retail locations must be converted to fuels containing the different oxygenates. If the industry is to avoid outages in the marketplace, both types of fuels must be produced, shipped, and stored at the terminals during the transition periods in the spring and fall. In far too many instances, the storage tanks required to segregate these products do not exist and cannot be built within the required time-frame.

Fourth, the recent DOE/National Petroleum Council Study entitled "U.S. Petroleum Refining" has confirmed the general rule that the more grades of product shipped in a pipeline, the lower its effective capacity. EPA's ethanol mandate will require a proliferation of additional gasoline blendstocks. This will result in reduced pipeline efficiency and have an adverse effect on the availability and price of gasoline and other fuels.

The Colonial Pipeline is the primary source of gasoline supplies for the Northeast besides those produced within the region. Current levels of petroleum product demand have already required the Colonial Pipeline to operate at capacity during several periods in the past year. Even without the ethanol mandate, EPA's rules for reformulated gasoline will add a *minimum* of 4 grades (premium and regular grade unleaded/northern and southern) on the pipeline. The ethanol mandate would effectively mandate a minimum of 4 *additional* grades

Hon. John D. Dingell
June 21, 1994
Page 4

of ethanol blendstock (RBOB), further reducing the effective capacity of Colonial Pipeline.

CITGO believes that a likely consequence of the reduction in the effective capacity of the Colonial Pipeline is that additional waterborne shipments of petroleum products will be required from refineries located on the Gulf Coast to terminals serving the Mid-Atlantic and Northeast. Compared to pipeline transportation, waterborne movements have greater risk of environmental damage due to spills. And, unlike pipeline shipments, waterborne shipments are subject to weather-related disruptions, increasing the risk of periodic, temporary spot-shortages.

The increased waterborne shipments of petroleum products induced by the reduced efficiency of the Colonial Pipeline will place additional pressure on the limited number of Jones Act tankers that may lawfully participate in domestic transport of products between two U.S. ports. The increased demand for these tankers will invariably drive up shipping costs and raise the price of gasoline and other fuels on the East Coast.

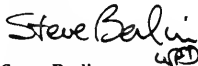
Persons unfamiliar with the competitive realities of gasoline marketing have suggested that ETBE is the panacea that will overcome the logistical and supply-related problems inherent in ethanol blending. There are two fundamental reasons why this view is wrong. First, in the near-term there is simply not enough ETBE capacity. The reality that ethanol is the *only* near-term option undercuts ETBE as a long-term solution. Ethanol blending will require investments in facilities and equipment that would be rendered useless by a subsequent switch to ETBE, making this "long-term" solution less cost effective once the initial commitment to ethanol blending has been made. Second, even if ETBE capacity were adequate, ethanol would still enjoy a cost advantage over ETBE. Because of this cost advantage, some gasoline marketers are likely to opt for ethanol over ETBE on a long-term basis. In today's highly competitive gasoline marketplace, no gasoline marketer can afford to willingly cede a cost advantage to its competition. Accordingly, competition and costs are likely to drive the renewable oxygenate selection decision toward ethanol -- rather than ETBE -- notwithstanding the severe supply, logistic and environmental risks posed by ethanol blending.

Most ethanol is currently produced and sold in the Midwest, while the price and supply consequences of EPA's mandate will be felt in the Mid-Atlantic and Northeast. Thus, EPA's proposed ethanol mandate will provide a relatively marginal subsidy for a small group of ethanol producers in the Midwest at great expense and inconvenience to motorists and homeowners in the Mid-Atlantic and Northeast, and to taxpayers

Hon. John D. Dingell
June 21, 1994
Page 5

nationwide who, through the federal motor fuel excise tax exemption for gasohol, will pay an additional \$340 Million in subsidies to ethanol producers. Incredibly, the tax-subsidized, guaranteed market share produced by EPA's ethanol mandate will largely benefit a single company which appears to control more than 65% of domestic ethanol production capacity with virtually no regulatory oversight or supervision.

Sincerely,



Steve Berlin
Senior Vice-President,
Finance and Administration
Chief Financial Officer

cc: Rep. Dan Schaefer, Ranking Minority Member
Rep. Sherrod Brown
Rep. Marjorie Margolies-Mezvinsky
Rep. Henry A. Waxman
Rep. Cardiss Collins
Rep. Ron Wyden
Rep. John Bryant
Rep. Carlos J. Moorhead
Rep. Joe Barton
Rep. Fred Upton

NATIONAL PETROLEUM REFINERS ASSOCIATION

Founded 1902

SUITE 1000 1899 L STREET N.W. WASHINGTON D.C. 20036
TELEPHONE 202 457 0480C. R. STERNFELS
President

November 10, 1993

The Honorable Carol M. Browner
Administrator
United States Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Dear Ms. Browner:

This letter is written on behalf of the members of the National Petroleum Refiners Association. NPRA represents a large diversity of oil industry interests including large and small independent refiners as well as large integrated refiners, many of whom also act as blenders, importers, and distributors. We have worked cooperatively with the Environmental Protection Agency throughout the extended reformulated gasoline rulemaking process with the intent of helping the Agency promulgate the most economic and workable program possible.

In a number of meetings with the EPA, including my recent meeting with you, NPRA, API, and member companies have raised concerns over NO_x mandates and other key RFG issues. It appears that your Agency may have underestimated our concerns. Since that meeting with you, we have learned that EPA now intends to include large, Year 2000 NO_x reductions in the final reformulated gasoline regulations due to be issued this December. As expressed in our written comments on this rulemaking, NPRA believes that the inclusion of NO_x reduction requirements would be a serious breach of the Reg Neg Agreement by EPA, a signatory to this landmark agreement. NPRA member companies worked in good faith during the regulatory negotiation process to develop cost effective reformulated gasoline requirements which would meet the environmental goals of the Clean Air Act, and provide refiners with flexibility to assure adequate production and distribution of gasoline. Imposing mandates for NO_x reductions will significantly reduce the flexibility which refiners perceived to be part of the Reg Neg Agreement. Some of our members who negotiated this rulemaking in good faith and have already begun to plan for its implementation may now find RFG production economically infeasible. Moreover, such an abrogation of the letter, as well as the spirit of the Agreement would frustrate our mutual interest in voluntary efforts to achieve future balanced environmental improvements.

While we recognize future reductions in NO_x may be necessary for some areas of the country such as the Northeast, to achieve ozone attainment, there are many EPA programs

for stationary sources that will result in reduced NO_x levels at a much lower cost per ton than national mobile source NO_x reductions. Even without mandated NO_x reductions, Year 2000 reformulated gasoline on the average will result in significant reductions in NO_x . Mandating these reductions to all reformulated gasoline will unnecessarily limit individual refiner flexibility, increase the cost of production and reduce the potential for supplies.

The recent National Petroleum Council (NPC) report paints a dismal outlook for the U.S. refining industry, which will expend \$37 billion in this decade for environmental requirements compared to a \$31 billion book value. The NPC study does not even contemplate a cost for NO_x reduction for Year 2000 gasoline, which would require extensive new desulfurization capacity and billions more in capital investment.

On another related RFG issue, NPRA opposes any proposal which would allow foreign refiners to establish a baseline other than the CAA baseline. Allowing special treatment for foreign refiners will have anticompetitive impacts on U.S. refiners and, as in the case of the PDVSA request, may significantly increase the volume of higher emission RFG gasoline. Acceptance of this proposal would also be inconsistent with the terms hammered out in the intensive Reg Neg deliberations.

Finally, in your testimony of October 29, 1993 before the Subcommittee on Oversight and Investigations of the House Energy and Commerce Committee, you stated that, with respect to the December 15, 1993 promulgation deadline for this rule, EPA has "been assured by fuel providers [that it] allows adequate lead time for reformulated gasoline to be produced and distributed by the program's start-up on January 1, 1995." This comment fails to reflect very serious reservations, expressed by our members to your agency in written and verbal comments, on the critically short time left to finalize and implement plans to produce and distribute this new and unique product, and at the same time meet the new antidumping controls on conventional gasoline. While we firmly believe that our members will do all they can to assure adequate and timely supplies of reformulated and conventional gasoline, delays and lack of anticipated flexibility in the program will impede their ability to do so.

Our most recent submittal to EPA's public docket (August 13, 1993) reiterated our concern with delays and urged the Agency to provide maximum flexibility and options for compliance in the final rule. We included critical elements in this docket submittal and earlier comments that would assist our members in meeting the statutory deadline without compromising the quality of the reformulated gasoline program. Primary elements of concern expressed in our latest submittal were the need for:

- 1) utilization of industry standard test methods and their reproducibility limitations in setting enforcement tolerances and policy (without which industry will be forced to meet more stringent compliance specifications than agreed to in Reg Neg),
- 2) realistic performance standards based on a finished complex model,
- 3) a laboratory certification program to replace the EPA proposed independent sampling and testing program,
- 4) unrestricted early use of the complex model,
- 5) fungibility of all certified products under either the simple or complex models, and
- 6) a final rule consisting of regulatory negotiation principles with no special preference provided to the ethanol industry.

Many of these elements directly affect the ability of a number of our members to meet supply requirements anticipated for January 1, 1995.

Thank you for your attention to these very serious matters. We would be pleased to further describe or discuss our concerns with you and your staff.

Sincerely,



cc: Subcommittee on Oversight and Investigation of the Committee on Energy and
Commerce, United States House of Representatives
Senate Energy Committee
Senate Environment and Public Works Committee

NATIONAL PETROLEUM REFINERS ASSOCIATION

Founded 1902

SUITE 1000, 1899 L STREET, N.W., WASHINGTON, D.C. 20036
TELEPHONE (202) 457-0480



February 11, 1994

Air Docket Section (LE 131)
U.S. EPA
401 M Street, SW
Washington D.C. 20460

U.S. EPA
Attention: Docket A-91-77
2565 Plymouth Road
Ann Arbor, MI 48105

Dear Sir or Madam:

The National Petroleum Refiners Association (NPR) is pleased to submit comments in response to EPA's Notice of Proposed Rulemaking entitled "Regulation of Fuels and Fuel Additives: Standards for Deposit Control Additives". At the January 11, 1994 hearing, NPR provided oral testimony which summarized our views and concerns related to this proposal. Our written comments are intended to expand upon our oral statement, rather than restate our comments, and to respond to questions raised by the Agency at the hearing. We urge EPA to give full consideration to our oral statement and therefore, for reference, we have included a copy of this testimony as Attachment A.

In our oral testimony, we requested that EPA grant the request for extension of the comment period for this regulation. In the absence of a formal extension of the comment period, NPR is submitting these comments within the published comment period deadline. However, in view of the potential impacts of this regulation on our industry, the unanticipated complexity of the proposed rule and other fuel related regulations under review or recently finalized, NPR requests that EPA give full consideration to subsequent comments filed by NPR after the published comment period closing date. NPR will try to highlight areas where supplemental comments can be expected.

NPR again emphasizes our concern that the deposit control additive proposal is far more complex than needed to accomplish the goals of the program as specified in the Clean Air Act Amendments (CAAA). The CAAA simply specify that deposit control additives be used in all gasoline and that EPA determine a level of acceptable dosage. The Legislative history for this portion of the CAAA clearly states that the purpose of the regulations is to protect against degradation of engine emissions due to engine deposits. This goal would be accomplished by requiring that all gasoline be treated with detergent additives and does not require the extreme measures proposed to assure each gallon of gasoline will contain a specified level of additive protection.

The mechanism of deposit formation is relatively slow. Any change in engine cleanliness and therefore air quality impacts are slow and not catastrophic. Even the measurement tool for determining deposit formation tendency requires a 10,000 mile test, roughly a years worth of normal consumer driving. Because it is unlikely that consumers will consistently receive severe deposit forming gasoline, the impact of occasional severe gasoline batches will be minimal. Furthermore, the use of well additized gasoline will tend to reverse the adverse impacts of an occasional batch of severe gasoline. The extra tier of complexity introduced by EPA to address the concern over severe gasoline is extreme and an over complication to an already fragile system.

NPRA's oral comments focused first on timing of the proposed regulations. We urge EPA to give careful consideration to the implementation of the detergent additive regulation in view of the fact that the industry will be implementing numerous regulatory compliance initiatives with very little lead time. The complexity and costs associated with the recently finalized reformulated gasoline regulations will result in significant environmental benefits. We believe the addition of onerous detergent additive requirements, which provide little if any environmental benefit over that already being accomplished, run the risk of interfering with the implementation and smooth introduction of the reformulated gasoline program. The reformulated gasoline regulations are over two years late and the recent renewable fuels proposal, along with litigation likely to follow, leave the industry with little planning guidance. NPRA believes that the detergent additive regulation can be simplified while still realizing the intended environmental benefits and not interfering with other more beneficial regulations. Specifically the sampling and testing of gasoline should be eliminated from the rule.

Our oral comments focused on five areas: (1) Timing Issues; (2) Certification Issues; (3) Downstream Monitoring of Parameters; (4) Enforcement Strategies; and (5) Record Keeping. Our written submission will expand on these comments and attempt to respond to questions/issues raised at the hearing. Again we urge EPA to review our oral comments included as Attachment A.

Sincerely,



SUPPLEMENTAL NPRA COMMENTS

TIMING ISSUES

NPRA's oral testimony pointed out the need for additional time to comply with the proposed regulations in view of the concurrent regulatory requirements and the uncertainty of the industry's ability to fully comply with the interim program by January 1, 1995 and then again with the final program by January 1, 1996. Again we reiterate our concerns and point out that the CAAA appeared to recognize the potential difficulties in implementing these regulations by including the provision that industry utilize detergent additives by January 1, 1995 even if the regulations were not finalized. We again urge EPA to develop detergent additive regulations which provide for an effective detergent additive program, but also allow refiners sufficient time for full implementation. Consistent with the statute, the additive mandate could begin on January 1, 1995, but the full accounting, enforcement, etc., programs could be phased in on a reasonable timetable.

At the January 11 hearing EPA requested that industry suggest a compromise between the EPA proposed 120 day certification review period and the industry suggested 30 day period. NPRA believes that if EPA simplifies its overall detergent additive program additional resources will be available for the certification process. We again urge EPA to establish the minimum certification time period to allow new technology to enter the marketplace as soon as possible.

CERTIFICATION ISSUES

In general, we believe the question of separate certifications for octane grades and gasoline types (i.e., reformulated, conventional, oxygenated, etc.) should be left to the discretion of the refiner. EPA, in its preamble to the proposed rule, states that it is considering allowing specific grades of gasoline to be certified separately from the remaining pool of gasoline of a supplier. We strongly support the separation of different grades and products as an option to be exercised by the gasoline/additive blender. As EPA notes, premium grades may require a lower concentration of detergent additive to maintain the same level of deposit control. Hence, separation of premium from the rest of the gasoline pool for the purposes of complying with this rule may result in a cost savings to a refiner.

In the case of oxygenated fuel, we support the second option enunciated by EPA which would allow separate certifications of oxygenated and nonoxygenated fuel while maintaining the option of obtaining a single certification for both at the discretion of the refiner. This is particularly important for ethanol blends where prior research indicates that significantly more detergent may be needed. We refer you to a paper, SAE 90 2109, for further technical documentation on the impact of ethanol on detergent requirements.

EPA raised the concern that some volume of gasoline would be outside the parameter ranges of the certification fuel and should therefore be considered severe gasoline in terms of deposit formation. We again emphasize that on average fuels will be sufficiently additized and the small volume falling outside this range will not result in environmental degradation. We felt that the 65% selection was a constructive suggestion because it provided for greater than average protection while avoiding costly excess additization and its possible deleterious side effects. Furthermore, considering the severity of the test for certification (using the most severe of vehicle engine technologies under the most severe driving cycles) and the probability that many detergent blenders will use generic certification for all gasoline, the Agency has more than sufficient assurance that additive levels will be more than adequate to protect against possible greater deposit forming tendencies of severe gasolines. A single certification level has layers of conservative assumptions and therefore even the severe gasoline of concern to EPA is not likely result in any real increase in deposit formation.

EPA should recognize that future gasolines will tend to be more similar, with fewer batches approaching the severe level. Reformulated gasoline regulations, particularly when the complex model becomes mandated, will significantly restrict the parameter ranges of reformulated gasoline. Some volume that now has parameters close to or at EPA's severe range will be reformulated and the resulting parameters will likely be better than average gasoline today. Refiners will be forced to better plan equipment outages (which in the past may have accounted for some production of severe gasoline) to remain in compliance with reformulated gasoline requirements.

Anti-dumping regulations will assure that conventional gasoline does not deteriorate from past quality ranges. Furthermore, modifications initiated to produce reformulated gasoline will in some cases improve the quality of reformulated gasoline. For example, a refiner may install fluid catalytic cracking feed desulfurization facilities to reduce the sulfur content of FCC gasoline (one of the largest volume components). This will reduce the sulfur content of all FCC gasoline, both that used in reformulated and conventional gasoline. Thus EPA has yet another level of conservative assumptions built into the detergent additive program that provides further assurance that gasoline will be adequately additized. The 65% level for gasoline produced in 1995 and beyond is far more conservative than the 65% range for pre-1995 gasoline used to establish additive dosages for the detergent rule.

As pointed out in our oral testimony, we believe that detergent certifiers must be able to blend fuels from normal refinery components to assure the availability of timely supplies. At the hearing, EPA requested comment on how the agency can be sure that these fuels are representative of actual fuels in the market. As long as the fuels meet the parameters required for certification fuels, they should be adequate for examining the effectiveness of a detergent. The use of typical refinery blendstocks in constructing test fuels was typical of operations used to support the reformulated gasoline regulations and predictive models. We see no reason why EPA should now become concerned that these fuels do not represent true conditions.

Paragraph 80, 144(a)2 specifies that test fuels must be contained in new, sealed containers. Current testing facilities have tanks that are cleaned and reused for new batches of test fuels. The required use of new drums is unreasonable, expensive, would generate a lot of waste and runs counter to responsible conservation of resources and energy.

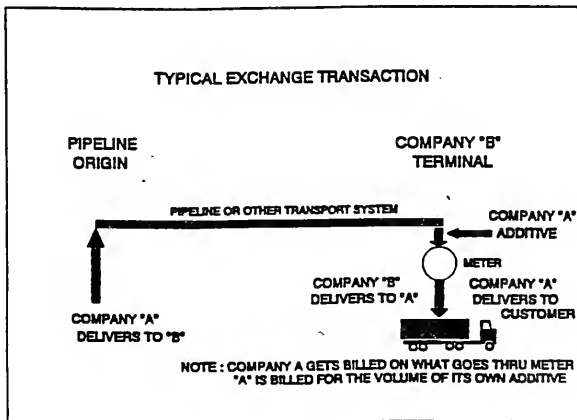
DOWNSTREAM MONITORING OF PARAMETERS

NPRA believes that our January 11 oral comments provide substantial justification for elimination of the terminal sampling and testing requirements. The refining industry, petroleum marketers and EPA had numerous discussions during the development of the reformulated gasoline regulations concerning the difficulties, costs and inability to conduct routine compliance sampling and testing at the terminal level. For this reason EPA adopted refinery gate certification for reformulated and conventional gasoline. We believe that EPA understood and was receptive to industry concerns and should do so again for the deposit control program.

ENFORCEMENT STRATEGY

NPRA's oral testimony strongly opposed the onerous weekly mass balancing, zero tolerance and liability provisions of the proposed enforcement program. Current gasoline terminaling practices used by the industry allow for efficient, cost effective and competitive distribution of gasoline to consumers. The onerous provisions set forth in EPA's proposal would disrupt existing relationships between suppliers and place unnecessary burdens and costs on the industry and eventually consumers.

The following figure illustrates an exchange transaction used at some terminals; however, note that there are many variations to these transactions.



The party who receives product at a truck rack routinely owns the additive and the equipment which injects it. The additive is injected upstream of the gasoline meter, so the customer is billed for both the gasoline and additive volume. Company "A" owes Company "B" the volume of product delivered through the meters, less the amount of additive injected.

Company "A" pays "B" a like volume at the pipeline origin less an adjustment to account for the additive. Since additive treatment rates are small and many rack locations are involved, these adjustments are rarely done weekly. A longer time period for balancing also allows terminals with smaller number of loads per month per additive system to have enough volume for closer accuracy.

In response to EPA's inquiry as to typical balancing practices, industry is surveying members and hopes to quantify industry practice in subsequent comments.

The proposed regulation requires a mass balance record for (a) each injector for automated locations with meters; (b) each storage tank for locations without meters; and (c) each batch for hand blending locations. Item (c) makes hand treating virtually impossible. Many companies sell branded gasoline to Distributors who require the carrier's driver to add appropriate quantities of detergent at the terminal or retail site. The drivers would be considered the blenders of record and would not have information available to produce a mass balancing record. A simpler process would be to have the driver sign a document for each batch specifying that X amount of additive was placed in Y gallons of gasoline.

In addition, the final rule should allow the detergent blender to choose the mass balance method most suitable to his system. Thus a facility with meters on each injector and total meters from the detergent inventory should be allowed to utilize the total meters for mass balance determinations. To disallow this flexibility would discourage operators from adding individual injector meters for additional quality control. NPRA has additional concerns in this area and intends to submit supplemental comments.

The requirement for 100% blending tolerance would be a near impossible task unless blenders targeted to significantly over-additize. New automated additive injector systems generally work by injecting additive in pulses. Typically one pulse of additive is injected for every 40 gallons of gasoline fed into a truck trailer. The automated system allows a driver to key-in the amount of gasoline he wants to lift, and the computerized system calculates the amount of additive needed, automatically adding it as the gasoline is loaded. However, it is possible that in the middle of a loading procedure the driver may need to shut down the blending operation. Since the automated systems are not designed to blend additive at a constant flow, a shutdown and restart could result in more or less than target additive being injected.

As mentioned above, in many circumstances the owner of the injecting equipment is not the terminal operator and is not present at the terminal location. Yet the owner of the injection facilities is responsible for maintaining the equipment. In the case of maintenance problems it is not always possible for the owner to respond immediately. Providing a tolerance for additive

concentration would allow an additive blender to remain in compliance when circumstances beyond his control result in an under-additized batch. Over the longer term, mass balancing records would provide assurance that on average gasoline is additized appropriately without the need for continual high overtreatment to assure that upsets do not cause noncompliance. We are aware of situations in California where operators set injection rates at 110% of the certified rate in order to assure compliance to California zero downward deviation allowance.

In Section 80.157(b) EPA proposes to require detergent tank gauging at the beginning and end of the mass balance period and using the difference in combination with the difference between additions and subtractions from the tank to determine actual detergent usage. To determine mass balance compliance the EPA should simply apply the metered outlet quantity of detergent (i.e., the subtractions from the tank) during the mass balance period and compare this to the gallons of gasoline treated during the period.

EPA appears to require tank gauging in combination with more accurate total meter readings. This approach compromises accuracy of the balances and imposes additional record keeping and recording requirements. A detergent blender's operation that monitors tank inventories against purchased and outgoing quantities should not be of interest to EPA and serves no purpose in the mass balance process. A similar problem is noted in the determination of gasoline and post refinery component gallonage during the mass balance period (also found in section 80.157(a) and (c)). NPRA may provide further comments in this area.

The proposal requires quarterly calibration tests for equipment and retention of calibration records. This calibration should be for measurement meters only and not for individual injectors. Also the quarterly calibration is more extreme than that required for gasoline metering and should be no more frequent than annual. Companies will be recalibrating on their own each time a problem is suspected.

NPRA does not believe that it is reasonable to expand liability to those who unknowingly use and then perhaps transfer under-additize gasoline or to those who transfer product which is later under-additized. A gasoline marketer who sells to distributors has no control of the product after it leaves the terminal.

RECORD KEEPING

The Proposed Regulation requiring mass balancing records to be kept for five years is inconsistent with the government's paperwork reduction policy. This policy requires that collected information not be held for more than three years. NPRA recommends that the time period be reduced to two years as is the standard for CARB certification. Two years is sufficient for inspections of mass-blending facilities.

The proposed regulation requires that each mass balance record must be maintained at the blending facility together with the product transfer documents of the base gasoline, post refinery component, and detergent that were blended together and were the subject of the mass balance accounting record. This requirement would require massive amounts of paper to be saved, sorted, and collated for each balancing period. The actual physical transfer of documents should not be required. EPA should allow a company to compile relevant information and perform the balancing at a central location through electronic media. A summary report of the process can be sent to each blending location for follow up. The detailed information can be obtained from electronic media and made available to EPA at the time of an audit.



NATIONAL PETROLEUM REFINERS ASSOCIATION

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May 10, 1994

Ms. Mary Smith
Director, Field Operations and Support Division
United States Environmental Protection Agency
Mailcode 6406J
501 3rd Street
Washington, D.C. 20001

Dear Ms. Smith,

NPRA's Ad Hoc Motor Fuels Strategy Group met in Houston on April 20, 1994 in an effort to determine the most effective way to work together and with EPA toward a successful implementation of the RFG regulations. In response to your request at the RFG workshop, we have attempted to identify problem areas in the regulations and issues which require resolution immediately. Some such issues identified during our meeting are listed below and discussed in more detail in the attachment to this letter.

1. The prohibition on combining reformulated gasoline with conventional gasoline may severely restrict the supply system during the transition to reformulated gasoline.
2. The prohibition on adding nonoxygenate blendstocks to RFG, and the prohibition on adding oxygen to RFG except if the RFG is OPRG, decrease available gasoline supplies during the transition from summer to winter fuel.
3. Unless baselines are approved by September 1, 1994, refiners will not have sufficient time to adequately plan for 1995 gasoline production.
4. If registration numbers for refiners and importers are not issued in a timely fashion, there may be confusion during the initial transfers of RFG.
5. The Industry does not currently have in place an adequate mechanism to comply with all of EPA's product transfer documentation.
6. It may be too late for EPA to require the use of an EPA baseline submission form or a specific baseline submittal format.

- 7 Limiting refiners to a single independent sampler/tester is overly restrictive, and may result in disruptions during gasoline shipping.
8. EPA must clarify and understand the role of the gasoline volume obtained and reported by the independent sampler/tester. Failure to do so will likely result in confusion and disputes between industry and the Agency.

In past correspondence NPRA has pointed out to EPA that given the delays in promulgating the RFG regulations and the complexity of the regulations, we cannot be assured that the RFG program can be implemented without significant market disruption. The uncertainty and new requirements of the renewable oxygenate program increase the level of our concerns. We urge EPA to be prepared to deal with initial problems and we seek your cooperation in our efforts to minimize potential disruptions. NPRA proposes to establish an RFG hot line for industry to seek answers to questions about the regulations and to serve as a mechanism for identifying problem areas. NPRA will keep EPA and DOE informed on problem areas and requests that EPA assist us in answering questions.

NPRA believes the above issues are critical and deserve immediate attention in order to avoid further confusion and to assist in the initial start-up of this very complex regulation. Some may require simple clarification and by their noncontroversial nature may be remedied through the direct final rule. NPRA requests an opportunity to discuss these issues in more detail at your convenience.

Sincerely,



Urvan R. Sternfels

URS/drm

Enclosure

cc: Carol Browner, Administrator, U.S. EPA
Mary Nichols, Asst. Adm., Off. of Air & Radiation, EPA

Attachment
RFG Issues Requiring Immediate Resolution

1. Prohibition on Combining RFG and Conventional Gasoline

§80.78(a)(10) of the regulation reads: "No person may combine any reformulated gasoline with any conventional gasoline and sell the resulting mixture as reformulated gasoline." This provision is likely to cause supply problems during the transition from conventional gasoline to reformulated gasoline at terminals and retail outlets serving covered areas. Reformulated gasoline delivered to a tank which contains any conventional gasoline will always become conventional gasoline. Strict compliance with §80.78 will require inventory in tanks at retail outlets and terminals to be entirely pumped out and "air dry" before reformulated gasoline is introduced.

There are no surplus tanks at retail outlets and product terminals. In fact, terminals serving both covered areas and attainment areas will be tankage limited as they reconfigure their storage to accommodate both products. A requirement to pump out old inventory will remove those tanks from service. This will reduce supplies during the transition period, probably leading to disruptions in the marketplace.

Mixing Simple Model RFG and conventional gasoline to provide for the introduction of RFG by December 1, 1994 will not cause air quality to deteriorate. In fact, pumping out tanks will cause significant VOC emissions. EPA must provide industry with assurance that combining RFG and conventional gasoline will be allowed as needed to accomplish the initial and future transitions from conventional gasoline to RFG.

2. Prohibition on Blending Oxygenates and Other Components with RFG

Current industry practice is to do some blending at terminals in order to correct off specification blends and to seasonally adjust blends in order to improve vehicle driveability. Specifically, as colder weather approaches, butane is added to summer grade gasoline remaining in tanks in order to increase RVP and improve cold start performance. In addition, the CAAA of 1990 requires those areas not in attainment for CO to use 2.7 wt% oxygen gasoline during part of the winter. At times it may be necessary to add oxygenate to finished blends already in terminals in order to arrive at the minimum oxygen content required by law.

§ 80.78(a)(5) says, in essence, that a refiner may add nonoxygenate blendstocks to RFG. §80.78(a)(6) says that no person may add oxygenate to RFG unless such RFG is designated OPRG. Since adding a nonoxygenate blendstock will generally require adding an oxygenate in order to maintain the oxygenate limits, this section makes it impossible for terminals (refiners) to enhance the starting characteristics of finished blends or to reach the minimum 2.7 wt% oxygen required for the CO programs on blends that are already in the terminals.

§80.78(a)(15) says that blendstock added to RFG must meet RFG standards. If a quantity of RFG is off specification, there must be the capability to bring that material up to specification regardless of whether the blendstocks meet RFG requirements or not.

If no person can downgrade VOC-controlled RFG to non-VOC-controlled RFG through light end blending or to upgrade non-OPRG to OPRG by oxygen addition, about the only option left is to seal the tanks and await the next summer season. Such an action would be extremely costly and would reduce potential gasoline supplies in areas served by the terminals.

3. Baseline Approval

In order to provide adequate time for planning and scheduling for 1995 gasoline production, refiners must have certainty on baseline parameters by September 1, 1994. Without this certainty, their ability to produce adequate quantities of RFG or conventional gasoline is in jeopardy. Therefore, NPRA suggests that if EPA is unable to confirm acceptance of a refiner's baseline submittal by September 1, 1994 or 30 days after submittal, if that is later, NPRA believes the refiner must be able to utilize the submitted baseline as verified by auditors for 1995 compliance whether or not it becomes the final approved baseline.

4. Registration Numbers

§80.76 requires producers and importers of reformulated gasoline to register by November 1, 1994 or three months prior to production or importation of reformulated gasoline, whichever is later, in order to be assigned a registration number by the EPA. §80.65 requires that RFG be at any location other than retail outlets and wholesale purchaser-consumer facilities by December 1, 1994. §80.77(j) requires that transfer documents include the EPA assigned registration number of both the transferrer and the transferee if they are a refiner, importer, or oxygenate blender.

The reality of distribution system transit times and turnovers requires that some reformulated gasoline be produced, transferred and transported as early as September, 1994. If registration numbers are not available by the date, refiners will be unable to comply with the above requirement. Furthermore, if independent samplers/testers do not have their registration numbers, refiners will not be able to comply with sampling and testing requirements.

To remedy this, NPRA suggests that EPA allow the industry to continue using their same transfer documents in which they identify each other by company name as they have in the past until January 1, when the reformulated program is in full swing and the EPA has issued all registration numbers.

5. Product Transfer Document

Section 80.77 contains the requirements for Product Transfer Documentation. According to this section, the transfer document must include the name and address of the transferor, the name and address of the transferee, and the location of the gasoline at the time of the transfer. This must be provided in addition to a complete description of the product being transferred.

Although this information appears to be straightforward, it may not be readily available under certain types of gasoline marketing practices. Gasoline is a commodity that is typically transported either by product pipelines or barge from the refinery to the supply area. The transportation network dictates which areas are served by which refineries.

A refinery owned by one company may agree to supply a competitor's terminal located in an area served by that refinery in exchange for supply of gasoline in another not directly served by its own refinery. These product trades may occur any number of times while the actual shipment of gasoline travels along to its destination.

Current pipeline transfer documents are either transferred electronically, faxed or manually delivered to the receiving terminal. This practice must be allowed to continue, and multiple transfers of title will have to be accommodated.

In the case of truck shipments, the sequence of physical custody of a truck load of RFG is from terminal to common carrier to retail outlet, but the sequence of legal title may be from the terminal to exchange partner to marketer to common carrier to retail outlet. There may be several "paper" transfers between multiple exchange partners prior to transfer to the marketer. The ultimate retail destination is often not known by the terminal operator. In addition, the terminal may be unattended, and all shipping documents are printed automatically as the truck is loaded.

Rather than generating a new document for each transfer of title, we suggest that only one document accompany a truckload of RFG. The original terminal would be listed as the transferor, and successive parties would add their respective names to the document upon transfer.

Alternatively, one document could be generated upon the physical transfer of the RFG between the terminal and the common carrier. The transferee would be listed as either the exchange partner, marketer, common carrier, or retail outlet, depending on the information that is available to the terminal at the time of transfer.

6. Baseline Submission Form

Baseline submissions are due by June 1, 1994. Many refiners are well into the process of developing, auditing and submitting baselines and, therefore, cannot be requested to utilize a form not yet available. NPRA believes that because of the lack of final forms and formal

procedures for baseline submittal, EPA should be flexible in accepting good faith baseline submissions as prepared by each individual refiner. Refiners should also be notified of this flexibility as soon as possible.

7. Single Independent Sampler/Testers

Some companies feel allowing registration of only one independent lab is too constraining particularly when it is coupled with the 30 day notification of change requirement. There can be occasions where it is necessary to switch labs quickly (i.e. inability of first lab to carry out contract, performance quality issues, product trading, etc.). Allowing registration of more than one lab per refinery would provide a secure contingency plan. Some refineries may want to utilize more than one lab during the year for their sampling/testing requirement. NPRA would propose that the EPA allow this, but EPA would still adhere to directing each lab to test up to 10% of the total batches sampled.

In product trading, the inspection company is mutually agreed upon. With only one inspection company approved for a facility, there is no flexibility for mutual agreement which may restrict trading possibilities.

8. Independent Sampler Volumes

At Section 80.65(f) of the reformulated gasoline rule, EPA has prescribed requirements for independent sampling and testing of produced or imported RFG or RBOB. Prescribed for both options offered in paragraph (1) of this section is the requirement for the independent sampler to collect a representative sample from each batch of produced or imported RFG or RBOB. At paragraph (3) EPA further requires that the independent sampler and tester obtain the assigned batch number, volume of the batch, tank identification number, date and time of RFG certification and independent sample collection, and the grade of the batch.

NPRA recognizes that certain information on storage tank and gasoline grade is necessary to confirm that gasoline sampled and tested by both parties are the same. However, we are concerned that EPA may not appropriately use the batch volume information as collected by the independent sampler and tester. We expect the independent sampler will report the total volume of gasoline according to the tank gauging tables pertaining to that tank. This batch volume is necessarily the produced batch volume and represents the batch blend as certified by the refiner or importer at the time of production and ready for shipment. In most instances, this batch blend or produced volume will not and can not represent the actual shipped or tendered volume of RFG or RBOB. The refiner or importer must ultimately report the shipped or tendered volume in its batch EPA reports and use this same volume in its compliance calculations.

The difference between the independent sampling and testing batch blend or produced volumes and the refiner's or importer's produced and shipped volume reported will most typically be the tank heel or gasoline remaining in the tank at the time of the subsequent

batch blend or import operation. In no situations will the batch volumes as reported by the independent sampler be less than the produced and shipped volume reported by the refiner or importer.

To prevent further confusion and to help ensure smooth implementation while maintaining environmental goals of the program, NPRA believes EPA must publicly acknowledge to all parties that the subject volumes are not necessarily the same. EPA should specify that:

1. Independent sampling and testing volume is the volume of produced or imported batches of RFG or RBOB,
2. Refiner and importer volume used for compliance determinations is the shipped or tendered volumes for certified batches, and
3. Refiner and importer volumes reported to EPA in batch reports is the volume specified in 2. above.

This clarification would be consistent with the attest engagement procedures found in sections 80.125 through 80.130 and provide improved clarity for those responsible for implementing the rules. This clarification would be helpful if included in EPA's direct final rule since it is considered to be EPA's intent and is noncontroversial.

EXAMPLE:

A refiner produces a batch of RFG into a tank and certifies the tank's volume as 100,000 barrels of RFG using approved test methods. An independent sampler/tester confirms the batch blend volume at 100,000 barrels and samples the tank for testing and reporting.

Subsequently, the refiner ships only 75,000 barrels from this tank. This refiner would report in required batch reports to EPA only 75,000 barrels and the same volume would be utilized to demonstrate compliance. The independent sampler/tester volume would not be adjusted based on shipments, but remain the produced volume of 100,000 barrels.

Following shipments, the refiner blends an additional 50,000 barrels on top of the remaining 25,000 barrels, yielding a tank volume of 75,000 barrels certifiable as RFG. The independent sampler/tester would confirm the new batch blend volume as 75,000 barrels and sample the tank for testing and reporting. The refiner would report the volumes shipped from this new batch.

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URVAN R. STERNFELS
President

To
RS
Finn
DJ
DBF

June 7, 1994

Honorable John Dingell
Chairman
House Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515-6115

Dear Mr. Chairman:

It has come to our attention that your Oversight and Investigations Subcommittee may hold hearings on the requirements of the domestic refining industry to provide reformulated gasoline (RFG) to the nine ozone non-attainment areas and other areas that opt into the program beginning January 1, 1995.

The National Petroleum Refiners Association (NPRA) represents a large diversity of oil industry interests including nearly all large and small independent refiners and large, integrated refiners, many of whom also act as blenders, importers, and distributors. NPRA was intimately involved in the negotiated rulemaking (Reg Neg) process that preceded issuance of a very complicated and elaborate regulation nearly two years after the required date.

The domestic refining industry is committed to doing all that it can to ensure that sufficient product supplies are available to the marketplace beginning January 1, 1995. We have often advised the Environmental Protection Agency (EPA) that the refining industry must have "certainty" and confidence in the final rule so that it can make the necessary commitments for hardware and resources to meet the January 1, 1995 requirements. NPRA has repeatedly pointed out to EPA that, given the delays in promulgating the RFG final rule, the complexity of the regulation, and additional proposals which affect marketplace decisions, there can be no assurance that the RFG program will be implemented without significant disruption.

NPRA is working diligently to ensure that our members are fully apprised of the final rule. On March 7 & 8, NPRA and EPA hosted a two-day workshop attended by almost 300 industry people. On May 25th, we hosted, with the API and EPA, a day-long workshop on the Compliance Survey provisions of the final rule. And, we continue to urge EPA to resolve the many questions regarding implementation and enforcement arising from the complicated regulations. NPRA is establishing an "RFG HOTLINE" for our members who seek answers to questions about the regulations and which will serve as a mechanism for identifying problem areas. We are asking EPA to assist us in answering the questions.

NPRA is concerned that EPA continues to "tamper" with the RFG final rule. EPA's proposed "ethanol mandate," requiring that 30% of the oxygen content of RFG come from renewable oxygenates, was issued the same day that the final RFG rule was announced. EPA's recent proposal accommodating the government of Venezuela changing the foreign refiner baseline specifications is also very unsettling. Both of these issues, to this date, remain unresolved, and one or both will likely be subject to litigation should the proposals be adopted. The certainty, which this industry and all participants in the Reg Neg sought, is being lost as portions of the final rule are reopened, and the integrity of the negotiated rulemaking process is being compromised by last minute political accommodations.

We also continue to be concerned about EPA's proposed detergent additive rule and how it might impact gasoline supplies January 1, 1995. NPRA requested a more flexible program in our comments to the Agency. If EPA continues to pursue the type of program outlined in its additive proposal and it does not notify industry of its decisions until September, some companies may not be able to comply with the clean air act's detergent additive provisions required in all gasolines by January 1, 1995.

The convergence of these broad and very complex rules, very short time frames and many critical unresolved issues, diminish the likelihood for a smooth transition on January 1. Nevertheless, the domestic refining industry is committed to doing its best to ensure that the introduction of reformulated gasoline is as smooth as possible next January.

Please let us know if there is any additional information which we can provide. We would be pleased to work with you and your Committee.

Sincerely,



cc: Dave Finnegan
Attachments to Finn



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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SUBCOMMITTEE ON
OVERSIGHT AND INVESTIGATIONS

June 22, 1994

File Code: 4503-10

The Honorable John Dingell, Chair
Committee on Energy and Commerce
Room 3323
Rayburn House Office Building
Washington DC 20515

To
RS
Finn
DBF

SUBJECT: June 22 Hearing on Attainment of Ozone Air Quality Standard

Dear Congressman Dingell:

I understand that the Subcommittee on Oversight and Investigations will be conducting hearings on issues related to the attainment of the ozone air quality standard on June 22, 1994. The purpose of this letter is to provide my comments on two important issues related to the attainment of the ozone standard in Wisconsin. I am asking that you use your influence with USEPA to pursue administrative solutions to these issues.

The first issue relates to bump-up of nonattainment areas that are downwind of other nonattainment areas with a more severe classification. As you know, the more severe the classification the later the attainment date. This creates a problem for downwind nonattainment areas that are dominated by transported pollutants from upwind areas. Under these circumstances, the downwind area will find that it's virtually impossible to achieve attainment of the ozone air quality standard until the upwind area achieves significant emission reductions. However, this may not occur until well past the attainment date for the downwind area. An example may help illustrate this point. Kewaunee, Manitowoc and Sheboygan Counties in Wisconsin are moderate ozone nonattainment areas with an attainment date of 1996. These rural counties are downwind of Milwaukee, Chicago and Gary, which are severe ozone nonattainment areas with attainment dates of 2007. Due to the small amount of pollutant emissions in Wisconsin's moderate ozone nonattainment areas, pollutant emission reductions, beyond those already required in the Clean Air Act, in these counties will not be effective in reducing ozone concentrations. Yet these areas could potentially be bump-up to serious nonattainment and be required to implement additional ozone control measures, simply because they are downwind of severe ozone nonattainment areas.

The second issue relates to the background level of pollution coming into the Lake Michigan region. Preliminary results from the Lake Michigan Ozone Study indicates that the background level of ozone coming into the Lake Michigan Region can be over 100 ppb (for

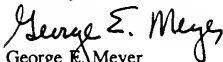


reference the ozone air quality standard is 120 ppb). With concentrations approaching the standard coming into the region, I am sure that you'll agree that attaining the standard in the Lake Michigan region will not be a simple task. However, the most important finding is that large portions of the eastern United States are victims of transported pollution. Large slow moving weather systems that are responsible for high ozone concentrations in the Lake Michigan region circulate polluted air throughout the eastern US. We all contribute to the problem. In other words, ozone pollution is not a urban problem nor is it a limited regional problem, it's a problem that is national in scale and needs to be addressed on a national basis. USEPA's previous ozone control efforts have focused primarily on local and regional groupings of nonattainment areas. Our analysis indicates that national ozone control measures aimed at reducing the background level of pollution need to be added to the urban scale efforts to effectively achieve attainment of the ozone air quality standard. Since everyone in the eastern United States contributes to the ozone problem, the most equitable solution is one that spreads the responsibility for the problem to all those who contribute rather than implementing draconian measures in certain urban areas and leaving other areas in the country with few regulations.

I am not asking for you to revise the Clean Air Act at this point. I would rather see you use your influence with USEPA to develop administrative solutions to the problem. If USEPA fails to properly address these issues, we may need Congressional action.

Thank you for your time in considering my comments on these important issues.

Sincerely,


George E. Meyer
Secretary

cc: Donald Theiler - AM/7
Charles Thompson - DOT



United States Department of State
 Washington, D.C. 20520

JF
 JH

APR 26 1994

OVERSIGHT AND INVESTIGATIONS
 SUBCOMMITTEE ON ENERGY AND COMMERCE

94 APR 26 PM 2:37

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UNCLASSIFIED
 (with CONFIDENTIAL attachments)

Dear Mr. Chairman:

We are responding to your letter of March 25 regarding the Administration's activities concerning the reformulated gasoline (RFG) rule, as it will be applied to foreign refiners. In the interest of providing you with the documents requested in your letter as soon as possible we are transmitting these to you today. The answers to the other questions in your letter will be provided in a separate letter.

Your letter requested all letters, memoranda, telegrams and other relevant documents since last September concerning the RFG matter. In an effort to be responsive to the interests of Congress, we have searched the files of the relevant offices of the Bureau of Inter-American Affairs and the Bureau of Economic and Business Affairs, as well as files from the Office of the Under Secretary for Economic and Agricultural Affairs, for documents generated from September 1, 1993, to the present. As noted in discussions with your staff, we will also search files in the Bureau of Oceans and International Environmental and Scientific Affairs and will provide you with any additional final documents we find in a timely fashion.

We have divided the 91 final documents we have identified into two groups. The first group of 83 documents is being delivered to the House Energy and Commerce Committee's Subcommittee on Oversight and Investigations in Room 2323 Rayburn. The second group consists of eight documents of higher sensitivity for the reasons discussed with your staff on April 22. In an effort to accommodate your request, and in accordance with our discussions with your staff, we are pleased to make these eight documents available to Committee members and appropriately cleared Committee staff under special standards that place these documents under the direct custody of the Subcommittee staff director, who will strictly control access.

The Honorable
 John D. Dingell, Chairman,
 Committee on Energy and Commerce,
 House of Representatives.

UNCLASSIFIED
 (with CONFIDENTIAL attachments)

UNCLASSIFIED
(with CONFIDENTIAL attachments)

-2-

Many of the documents we are providing to you contain classified information. Under Executive Order 12356, the Department may not disseminate classified information outside the Executive Branch except under conditions that ensure that the information will be given protection equivalent to that afforded such information within the Executive Branch. We ask that you and your staff protect the classified information you are receiving by applying standards at least as stringent as E.O. 12356 on the handling of classified information. We ask that only staff members with a need to know this information and with appropriate security clearances be permitted to examine these documents, that the classified documents not be duplicated, and that they not be removed from Rayburn 2323 or the main Committee Room. (We ask that the documents be stored in Rayburn 2323, which we understand contains your secure storage facilities.) Finally, we ask that your Committee return the materials at the conclusion of your review.

The unclassified documents in the materials we are delivering to you have been included with the classified documents in chronological and categorical order so that you have a comprehensive set of documents and so that the unclassified documents may be reviewed in context. The unclassified documents may be copied and removed, and these copies may be reviewed by uncleared staff members. As is our practice, we have redacted specific identifying information for senders and receivers of documents below the rank of Assistant Secretary, as well as the names of drafting and clearing officers.

We are committed to providing you and members of the Committee with the information you need to perform your legislative duties, consistent with the Executive Branch's need to protect sensitive foreign policy information and internal deliberations. Please feel free to contact us again if we can be of further help.

Sincerely,

Wendy R. Sherman

Wendy R. Sherman
Assistant Secretary
Legislative Affairs

Enclosures: As mentioned. → to RS

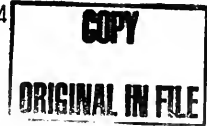
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(with CONFIDENTIAL attachments)



United States Department of State

RECEIVED
Washington, D.C. 20520

94 JUN -6 PM 2:28

JUN - 3 1994
ENERGY AND COMMERCE
U.S. HOUSE OF REPRESENTATIVES

Dear Mr. Chairman:

We are responding to your letter of March 25 regarding the reformulated gasoline (RFG) rule and the foreign refiner issue. Our letter of April 26, 1994 transmitted pertinent State Department documents per your request and indicated that written responses to your questions would follow under separate cover. This letter provides our answers to those questions.

You requested a list, in chronological order, of meetings held with Venezuelan officials on the subject of reformulated gasoline. We have broken down this request into two categories. The first concerns meetings held by the U.S. Embassy in Venezuela, the second concerns meetings held in Washington.

In the normal course of U.S. Embassy Caracas' dialogue with Venezuela since September, the reformulated gasoline issue was raised by Venezuelan officials numerous times in a variety of contexts. Several of the State Department reporting cables from U.S. Embassy Caracas provided to the Committee reflect instances where the subject was raised.

To be as responsive as possible to this request, we have also identified, at Tab 1, meetings at which the issue was discussed at greater length. For each meeting there is a cable which reports on discussion and identifies participants. We have listed these meetings chronologically, and provided the cable number as well as either the cable's subject line or a brief subject summary. All referenced cables were submitted to the Committee with our letter of April 26, 1994.

The Honorable
John D. Dingell, Chairman,
Committee on Energy and Commerce,
House of Representatives.

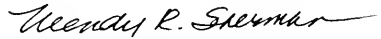
The issue was also raised by Venezuelan government officials during the course of bilateral meetings held at the Department of State in Washington. A chronological listing of such State Department meetings at which the issue of reformulated gasoline was raised, with reference to any relevant documents, is attached at Tab 2.

You also asked for an explanation of the discrimination claimed by Venezuela. Venezuela argues that, under the December 15 final rule, it is unfairly denied an option for compliance available to domestic refiners. While domestic refiners are being asked to keep three substances at their firm-specific 1990 level, foreign refiners must keep these substances at or below the average U.S. level, creating what Venezuela believes to be a greater burden on foreign refiners.

Your remaining questions concern EPA's decision making process and are best answered by that agency.

We are committed to providing you the information you need to perform your legislative duties. Please feel free to contact us again if we can be of further assistance to the committee.

Sincerely,



Wendy R. Sherman
Assistant Secretary
Legislative Affairs

Enclosures: As mentioned.

Tab 1

U.S. Embassy, Caracas
(All meetings held in Caracas.)

<u>DATE</u>	<u>CABLE SUBJECT LINE OR BRIEF SUMMARY</u>	<u>CABLE No.</u>
10/8/93	Venezuela complains to embassy about negative media reports on Venezuelan reformulated gasoline. Caracas 93 9145	
12/1/93	"Venezuelan President Expresses Consternation to A/S Watson over U.S. Reformulated Gasoline Policy" Caracas 93 10657	
12/1/93	"Ambassador and NSC Discuss RFG with Energy Minister" Caracas 93 10703	
12/13/93	"Caldera Advisor Talks of Trip to U.S., Economic Plans" Caracas 93 11059	
1/10/94	Minister of Energy tells Ambassador that Venezuela will present a letter to the USG by the end of the week requesting GATT consultations on reformulated gasoline dispute. Caracas 94 263	
1/14/94	Government of Venezuela presents Charge with a letter addressed to USTR Kantor formally requesting consultations under GATT over reformulated gasoline. Caracas 94 389	
3/1/94	Ministry of Energy and Mines telephones embassy to inform that Venezuela will request a second round of GATT consultations in Caracas on March 7-8. Embassy tells Venezuela U.S. will not be able to send delegation to Caracas on such short notice. Caracas 94 1676	
3/8/94	On March 8 Venezuelan Ministry of Foreign Trade provides embassy with letter from Foreign Trade Minister Poletto to Ambassador Kantor officially advising the USG that the GOV will request that a GATT panel convene on reformulated gasoline issue at the next GATT council meeting in Geneva on March 23. Caracas 94 1933	

(Tab 1 Con't)

U.S. Embassy, Caracas

3/9/94 On March 9 Ambassador telephones Foreign Trade
Minister Poletto to ask that Venezuela forgo
request for GATT panel, which they do not.

Caracas 94 1932

3/15/94 "Ambassador Meets with Energy and Foreign Trade
Ministers on Reformulated Gasoline"

Caracas 94 2129

3/17/94 Venezuela responds to offer of March 15. Seeks
written presentation of proposal.

Caracas 94 2234

3/19/94 "Ambassador Meets With Foreign Trade Minister On
Reformulated Gasoline"

Caracas 94 2252

3/22/94 "Reformulated Gasoline - GOV Accepts U.S. Offer"

Caracas 94 2344

Tab 2

Department of State, Washington

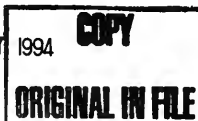
<u>DATE</u>	<u>BRIEF SUMMARY OF MEETING</u>
10/31/94	American Petroleum Institute, Mobil Corporation and Sun Oil call on EB Bureau to raise concerns over Venezuelan reformulated gasoline.
11/24/93	Petroleos de Venezuela rep Armando Segnini and counsel Mike Sherman call on EB Bureau to raise concerns over reformulated gasoline.
12/4/94	Venezuelan Energy Minister Parra calls on Bureau of Inter-American Affairs (ARA) and EB Bureaus to highlight Venezuelan concern over issue.
12/10/94	Venezuelan Energy Minister Parra and President Elect Caldera envoy hold meeting with Under Secretary for Economic and Agricultural Affairs Mrs. Spero. ARA, EB staff attend. (Briefing memo for the Under Secretary and daily report summarizing meeting submitted to Committee.)
12/17/93	Venezuelan Embassy Minister Counselor Luis Grisante attends holiday party at Department, and, on the margins, indicates Venezuelan consternation about EPA's December 15 final rule.
2/11/94	Article XXII GATT Consultations held between inter-agency U.S. Government delegation and Inter-Agency Venezuelan delegation at USTR. (See Reporting Cable: "GATT Consultations with Venezuela: Reformulated Gasoline.")
3/1/94	Petroleos de Venezuela rep Armando Segnini and counsel Bill Scott call on EB staff to provide update on Venezuelan energy developments and to express interest that bilateral USG-GOV consultations continue.
3/3/94	Former Venezuelan Embassy Economic Counselor, Luis Grisante, who had just become Deputy Finance Minister, pays farewell call on EB, ARA officers. Grisante devotes call to overview of the new Venezuelan economic program but expresses hope that U.S. consultations with Venezuela, handled by Venezuela's trade ministry, continue.



United States Department of State

Washington, D.C. 20520

RE:
 94 JUN 20 PM 3:05
 ENERGY &
 U.S. HOUSE OF
 REPRESENTATIVES
 JUN 17 1994



Dear Mr. Chairman:

We are responding to your June 13 letter regarding the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce and its oversight of the Clean Air Act Amendments of 1990 (CAA).

We received your invitation to a public hearing regarding the CAA scheduled for Wednesday, June 22, 1994, and will provide testimony on that date. The Department of State will be represented by Ambassador Alexander F. Watson, Assistant Secretary for Inter-American Affairs. Under Secretary Spero is committed to chair the annual U.S.-Korea Economic Sub-Cabinet Consultation on June 22.

Your letter also raises concerns over the classification of documents among those provided to the Committee by the Department. These documents were classified based on a contemporaneous judgment that disclosure of information in the documents would have harmed the national security, including the foreign relations of the United States. In no case were documents classified in order to prevent or delay the release of information that does not require protection in the interest of maintaining vital national security interests.

In an effort to respond as quickly as possible to your initial document request, we did not undertake at the time the declassification review required to determine whether these documents continue to contain classified information. The reasons for originally classifying documents were varied. By way of example, some of the documents in question contained information concerning internal assessments of our vulnerabilities in the face of a potential trade dispute. Others contained information provided to us by foreign government officials with an expectation of confidentiality. As stated in a recent meeting with your staff, the Department stands ready to discuss with Members or cleared staff the classification of any particular document of interest to the Committee.

The Honorable
 John D. Dingell, Chairman,
 Committee on Energy and Commerce,
 House of Representatives.

-2-

We recognize the possibility that with the passage of time, not all of the documents labelled as classified continue to require classification. In response to your letter, we have initiated a declassification review of all the classified documents provided to the Committee. We anticipate that this review will be completed expeditiously. In the interim, the classified information you have received must be protected by applying standards at least as stringent as E.O. 12356 on the handling of classified information.

We remain committed to work cooperatively with you on this matter.

Sincerely,



Wendy R. Sherman
Assistant Secretary
Legislative Affairs



United States Department of State

Washington, D.C. 20520

UNCLASSIFIED
(with CONFIDENTIAL attachments)

Dear Mr. Chairman:

Attached are the results of the review of the State Department documents concerning the Venezuelan reformulated gasoline issue which you requested of Assistant Secretary Watson during the June 22 hearing before the House Energy and Commerce Committee. As your Committee Counsel requested on October 4, we reorganized the documents according to whether the document was (1) declassified and released, (2) its classification was retained in whole or (3) its classification was retained in part. To help in ascertaining exactly what was deleted from the documents released in part, we also included an intact classified copy marked with excisions. We have also recopied some of the xeroxed documents whose legibility was impaired. As a result of this review, 48 documents were released in whole, 32 documents were released in part, and 26 were denied release in whole.

As you may note, all of these documents were provided to you prior to the June 22 hearing, as your earlier letter requested. These documents were the result of an extensive search of the files in the relevant offices of the Bureau of Inter-American Affairs and the Bureau of Economic and Business Affairs, as well as the files from the Office of the Under Secretary for Economic and Agricultural Affairs, for documents generated from September 1, 1993. We also searched files in the Bureau of Oceans and International Environmental and Scientific Affairs as your staff requested.

The documents are being delivered to the House Energy and Commerce Committee's Subcommittee on Oversight and Investigations in Room 2323 Rayburn. We are pleased to make these classified documents available once again to Committee members and appropriately cleared Committee staff under special standards that place these documents in the direct custody of the Subcommittee staff director, who will control access.

The Honorable
John D. Dingell, Chairman,
Committee on Energy and Commerce,
House of Representatives.

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(with CONFIDENTIAL attachments)

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(with CONFIDENTIAL attachments)

-2-

Under Executive Order 12356, the Department may not disseminate classified information outside the Executive Branch except under conditions that ensure that the information will be given protection equivalent to that afforded such information within the Executive Branch. We, in addition, ask that you and your staff protect the classified information you are receiving by applying standards at least as stringent as E.O. 12356 on the handling of classified information. We ask that only staff members with a need to know this information and with appropriate security clearances be permitted to examine these documents, that the classified documents not be duplicated, and that they not be removed from Rayburn 2323 or the main Committee Room. (We ask that the documents be stored in Rayburn 2323, which we understand contains your secure storage facilities.) Finally, we ask that your Committee return the materials at the conclusion of your review.

As explained in the earlier letter of transmittal, we originally transmitted the unclassified documents in the materials we delivered to you with the classified documents in chronological and categorical order so that you had a comprehensive set of documents and so that the unclassified documents could be reviewed in context. The unclassified documents may be copied and removed, and these copies may be reviewed by unclassified staff members. As is our practice, we have redacted specific identifying information for senders and receivers of documents below the rank of Assistant Secretary, as well as the names of drafting and clearing officers.

We are committed to providing you and members of the Committee with the information you need to perform your legislative duties, consistent with the Executive Branch's need to protect sensitive foreign policy information and internal deliberations. Please feel free to contact us again if we can be of further help.

Sincerely,



Wendy R. Sherman
Assistant Secretary
Legislative Affairs

Enclosures: As mentioned.

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(with CONFIDENTIAL attachments)

Review Results - "C" Exemptions

C1	Deliberative Process	inter- or intra-agency pre-decisional discussions or recommendations.
C2	State Secrets	classified information.
	Category (1)	information provided in confidence by officials of foreign governments.
	Category (2)	information provided by a confidential source on matters relating to national security.
	Category (3)	information communicated by US officials to foreign government officials to further US foreign relations objectives.
	Category (4)	confidential assessments, analyses and recommendations by US officials for US decision-makers in the foreign relations field.
	Category (5)	information revealing the identity of US officials and employees concerned with foreign relations matters who, because of their participation in special events, may be the target of terrorist actions.
C3	Attorney-Client	communications between lawyer and client.
C4	Executive Legislative Confidentiality	communications between the Executive Branch and the Congress where there was an expectation of confidentiality. It will not apply to normal Department of State unclassified congressional reports or notifications unless there is some overriding expectation of confidentiality.
C5	Proprietary Information	confidential commercial information.
C6	Statutory	information required by statute to be kept confidential.
C7	Other Agency Origin	documents originating with other federal agencies.
C8	Attorney-Work Product	material prepared by an attorney in contemplation of litigation.
C9	Active Law Enforcement	information related to law enforcement activities

Petroleum

Venezuela and the U.S.

- o Venezuela is our second largest foreign oil source, supplying 1.2 million barrels per day of oil and refined products (15 percent of U.S. daily imports).
- o Venezuela owns 100 percent of Citgo Petroleum, the ninth largest oil product distributor in the U.S.
 - Citgo's Gulf Coast oil refineries and 12,000 service stations provide Venezuela a secure long-term crude customer and enhance Venezuela's reliability as a supplier to the U.S. market.
- o The GOV continues to play a moderating role in OPEC. Venezuela did not join the 1973 Arab oil embargo and Venezuela increased oil production after the Iraqi-Invasion of Kuwait, helping to ease the supply crisis.
 - Venezuela is the only OPEC country outside the Persian Gulf with significant surge, or emergency, oil production capacity.

Venezuela's Energy Sector Opening

- o Venezuela nationalized its oil sector in 1976, putting state owned Petroleos de Venezuela (PDVSA) in monopoly control of oil production and distribution.
- o PDVSA has developed an ambitious 33 billion USD program to expand crude oil production capacity from 2.3 million b/d to 3.5 million b/d by 1997.
 - PDVSA is taxed at a rate nearing 85 percent of export revenues, making it a cash cow for the GOV, but complicating the firm's expansion program.
- o Short of its own investment resources, the GOV has taken moderate yet concrete steps to welcome foreign companies back:
 - In August, the GOV and Venezuela's congress approved the 5.6 billion dollar "Cristobal Colon" Liquefied Natural Gas joint-venture between PDVSA and Exxon, Shell and Mitsubishi. The companies could, if natural gas prices firm, proceed as early as 1997, marking the first foreign equity participation in the oil sector since the nationalization.
 - PDVSA has recently awarded 16 service contracts to private oil companies, in two rounds, to reactive smaller, shut-in oil fields. Five of the contractors are American and one, Benton Oil, is already producing oil on a fee per barrel basis.

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DEPARTMENT OF STATE

IS/IF/IC/IDR/SP/US Date: 10/24/94

MR Cases Only: EO Citations

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- Conoco will participate with PDVSA in a 2 billion dollar project to produce heavy oil in Venezuela, which Conoco will upgrade and refine in Texas.
- o Several U.S. companies are negotiating future joint-ventures or "strategic associations" with PDVSA.
- o Venezuela has not shown the political willingness to open its "patrimony" -- the light and medium crude sector to full fledged foreign exploration, production or equity investment.
- o A limited pool of international oil company capital, technology and resources is now actively being committed to countries that offer the best terms. Unless Venezuela allows greater equity participation in its light and medium sectors, it will lose out on investment to Kazakstan, Azerbaijan, Russia, and to a lesser extent Peru, Argentina and Colombia.

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The EPA and Reformulated Gasoline

The GOV is very concerned over a pending statute from EPA that, as circulated in draft, would half their anticipated exports of reformulated gasoline (120,000 b/d to 60,000 b/d) to the U.S. after 1995. The GOV petitioned the EPA for equal treatment under the statute, yet EPA has come under fire from U.S. refiners not to be flexible to the Venezuelan request. A final, as of yet still undecided, ruling is to be issued December 15. However, we have reason to believe that EPA will rule against GOV's request. The GOV has put this issue high on their economic agenda with the USG. Likely interlocutor is Oil Minister Alirio Parra or other senior economic officials.

The Clean Air Act of 1990 mandates the use of reformulated (cleaner burning) gasoline, starting in 1995, for nine plus U.S. cities with poor air quality.

EPA has yet to determine the final standards -- ingredients -- for reformulated gasoline. On December 15, the EPA will issue transition standards for 1995-97; one uniform standard will apply after 1997.

During the 1995-97 transition period, EPA's draft statute proposed that each American refiner hold each of three pollutants (sulfur, T-90, olefins) to firm specific 1990 levels while cleaning the rest of the gallon. Foreign refiners would be asked to hold these pollutants to the average U.S. 1990 levels (not firm specific).

Some U.S. refiners would be above average, some below, yet all would comply so long as they held the three pollutant levels to their firm specific 1990 "baseline" level. A foreign refiner could not use its own 1990 baseline level.

-- A "below average" U.S. gallon would comply, while an identical foreign gallon would not.

PDVSA argues it has the data to establish its 1990 "baseline". PDVSA admits that its 1990 gallon of gasoline is 30 percent higher than the U.S. average in Olefins but argues that, with its lower sulfur and T-90, its reformulated gasoline will pose no greater environmental effect.

The GOV argues that a different standard for U.S. vs. foreign products is a violation of GATT article three on national treatment.

State and USTR reviewed the GOV's GATT argument and have concluded that EPA's initial statute holds potential GATT liabilities for the USG. We have shared this assessment with API. Although we have no jurisdiction over the particulars of the statute, State (EB) and USTR have voiced concerns with EPA over the GATT issue on several occasions.

DEPARTMENT OF STATE

IS/IFPC/ODR/ARC Date: 10/21/98

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- o At our urging, EPA Deputy Administrator Sussman accepted Minister Parra's appointment request on August 2. GOV lawyers later reached a tentative compromise, suggesting that EPA may allow PDVSA its own baseline, but it would only apply to the volume of gasoline they exported to the U.S. in 1990 (60,000 b/d).
 - Above that level, PDVSA would have to comply with the average U.S. baseline -- allowing them nor more than an additional 30,000 b/d of exports.
 - The GOV wishes to see the compromise incorporated in the final statute,
- o The American Petroleum Institute has entered the fray, wishing to deny PDVSA the right to set its own 1990 baseline.
 - API, Sun Oil Company and Mobil argue that a stricter standard on imported gasoline is necessary because foreign refineries are not required to meet the full range of U.S. environmental standards and therefore gain a significant cost advantage.
 - They also argue that Venezuelan reformulated gasoline's higher olefin content would be injurious to the environment.
 - API has also taken a nationalistic bent -- criticizing foreign influence in Washington.
- o API and PDVSA/Citgo have mobilized constituencies (environmentalists, U.S. refiners vs. regional distributors that would welcome price competition) and EPA has received letters from the Hill on both sides of the issue.
- o In a highly charged atmosphere, EPA is under intense pressure not to grant PDVSA its own baseline. The issue has been referred for a final decision to EPA Administrator Browner who must rule by December 15.

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URGENT



TO: Michelle M. Anders LOCATION: _____

FROM: Albert Knoll

DATE: _____ TIME: _____

Number of pages to follow: _____

This message is originating from a Panafax UF-600AT in the Sun Company Government Relations Office at 555 13th Street, N.W., Suite 1010 East, Washington, DC 20004-1109.

Telecopier number: (202) 628-1041

Any problems call: (202) 628-1010

Operator: _____

Thanks Michelle,

Alk.

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OES Daily Activity Report

Venezuelan Challenge to EPA Reformulated Gasoline Regulations:
Venezuela has initiated a GATT challenge to EPA's final reformulated gasoline regulations issued on December 15, 1993. Notwithstanding objections from the trade community, EPA's regulations implementing the reformulated gasoline program required by the 1990 Clean Air Act Amendments provided for individual baselines for domestic refiners, with importers required to meet Clean Air Act statutory baselines. Venezuela alleges that such treatment constitutes unfair discrimination. Currently, discussions are underway within the USG concerning a possible compromise whereby foreign refiners would be given the option to establish individual baselines if they provide guarantees of access for U.S. audits/inspections and reliable gasoline tracking methods. Use of individual baselines would be capped at 1990 import volumes, with imports above this cap governed by Clean Air Act statutory baselines. Venezuelan and U.S. representatives commenced informal GATT consultations on February 11; Venezuela has requested another meeting by March 14 in Caracas.

SEEGC 5976

DEPARTMENT OF STATE		IS/FPC/CDR <i>MR</i>	Date. <i>10/21/94</i>
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01/11/94

United States Department of State

Washington, D.C. 20520



~~UNCLASSIFIED~~

MEMORANDUM

TO: EB

FROM: EB/IEP

SUBJECT: Independent Report on Reformulated Gasoline.

The Venezuelans and the EPA held a preliminary meeting January 5 to explore options to resolve the reformulated gasoline trade dispute. Representing Venezuela were embassy Minister Counselor Grisante and PDVSA's Washington lawyer Mike Sherman of Collier, Rill and Scott. EPA was represented by Mary Smith, EPA Director of the Office of Mobile (pollution) Sources, George Lawrence, also of Mobile sources and an EPA lawyer. (Smith reports to Dick Wilson who reports to Assistant Administrator Nichols.)

According to Mr. Sherman, Smith explained that the EPA had turned down the "foreign refiner baseline" proposal because it would allow foreign refiners to be given the option of establishing their own baseline or of adhering to the average U.S. baseline. EPA, Smith claimed, feared that some "cleaner" (European) foreign refiners would lower their standard to the "dirtier" U.S. baseline, thus reducing the overall quality of the imported reformulated gasoline pool. Smith acknowledged that Venezuela's problem was the opposite, but said that the option that would let Venezuela comply would also create a "loophole" for others. Sherman proposed that PDVSA reformulated be held to emissions, not ingredient, standards and EPA said it would consider this concept and get back to him. Sherman is now on consultations in Caracas and an EPA response is anticipated shortly.

Minister Farra told Ambassador Davidow January 10 that he is writing EPA to formally request consultations on the issue. Venezuela also stands prepared to notify the GATT of the dispute, for a second time, on January 25.

State's examination of foreign refinery slates suggested to us that few foreign refiners were investing the large sums necessary to produce U.S. market-specific reformulated gasoline. We asked the CIA to obtain an independent analysis from Purvin and Gertz, an oil consulting firm in Houston that it has on retainer.

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Purvin and Gertz report (tab 1) that Latin America is the principal foreign supplier of gasoline to the U.S., and will also be the principal supplier of reformulated gasoline. In addition to Venezuela's 50,000 b/d reform potential, even with no EPA compromise, the Hess refinery in the Virgin Islands "would have no trouble" meeting EPA standards and supplying about 45,000 b/d of reformulated gasoline to the U.S. market.

Purvin and Gertz believe the Europeans (France, Italy, Spain, Netherlands and U.K.) will be challenged to comply with both European and U.S. environmental programs simultaneously. They note that low margins on U.S. gasoline have reduced European gasoline exports to the U.S. from 150,000 b/d a few years ago to 50,000 b/d in 1993. Purvin and Gertz still anticipate, however, that the European refinery slate will be capable of supplying over 50,000 b/d of reformulated gasoline to the U.S.

Purvin and Gertz also report that Canada and Saudi Arabia could supply 50,000 b/d and 20,000 b/d plus of reformulated respectively.

Comment: The Purvin and Gertz study helps to define the universe of potential foreign reformulated gasoline refiners and does not identify any unexpected major refiners of reform -- which should comfort the EPA to some extent. While there are more reform capable European refiners than we had anticipated, the aggregate European volumes are not large and the report notes that European reform exports to the U.S. may be displaced on the margin by reform from the more proximate Virgin Islands. We will share the report informally with EPA, if nothing else to demonstrate that we will continue our constructive dialogue with them.

The findings of the report may also be of use in convincing the Venezuelans to address the issue bilaterally and not before the GATT. Although most foreign refiners that Purvin and Gertz identified are not expected to have problems conforming to EPA's statutes, a strong Venezuelan push in the GATT would only attract the attention of third parties, potentially bogging down the process, increasing potential USG liabilities and diluting possible GOV benefits. We will also sensitize EPA to the risk of third party complaints, which should provide added impetus for them to resolve the outstanding issue with Venezuela. An immediate and positive USG response to Minister Parra's written request for consultations will be an essential element of our strategy to diffuse this trade dispute on a bilateral basis.

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PAGE 02 CARACA 01933 01 OF 02 101623Z

E.O. 12356: N/A
 TAGS: EPET, FNRG, STR, VE
 SUBJECT: REFORMULATED GASOLINE - GOV TO REQUEST GATT
 PANEL TO CONVENE AT NEXT GATT COUNCIL MEETING.

REF: CARACAS 1576 AND PREVIOUS
 1. LATE MARCH 8, THE VENEZUELAN MINISTRY OF FOREIGN
 TRADE PROVIDED EMBASSY WITH A LETTER FROM FOREIGN TRADE
 MINISTER POLETTI TO AMBASSADOR KANTOR OFFICIALLY
 ADVISING THE USG THAT THE GOV WILL REQUEST THAT A GATT
 PANEL CONVENE ON THE REFORMULATED GASOLINE ISSUE.
 VENEZUELA PLANS TO MAKE ITS REQUEST AT THE NEXT GATT
 COUNCIL MEETING IN GENEVA ON MARCH 23. ADDITIONAL
 INFORMATION WILL FOLLOW SEPTEL.

2. FOLLOWING IS AN UNOFFICIAL TRANSLATION OF THE TEXT
 OF THE LETTER. ORIGINAL LETTER WILL BE POUCHED TO
 ARA/AND.

UNOFFICIAL TRANSLATION:

CARACAS, MARCH 8, 1994

YOUR EXCELLENCY
 MR. AMBASSADOR
 MICHAEL KANTOR
 UNITED STATES TRADE REPRESENTATIVE
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PAGE 03 CARACA 01933 01 OF 02 101623Z
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500 SEVENTEENTH STREET, N.W.
WASHINGTON, D.C. 20506

DEAR MR. AMBASSADOR:

I AM PLEASED TO WRITE TO YOU IN REFERENCE TO THE CONSULTATIONS INITIATED WITH THE GOVERNMENT OF THE UNITED STATES, UNDER THE FRAMEWORK OF PROCEDURES TO RESOLVE GATT CONTROVERSIES, WITH RESPECT TO THE "REGULATIONS ON FUELS AND FUEL ADDITIVES - RULES FOR REFORMULATED AND CONVENTIONAL GASOLINE" APPROVED ON DECEMBER 19 BY YOUR COUNTRY'S ENVIRONMENTAL PROTECTION AGENCY.

ON THIS ISSUE, I WOULD LIKE TO INFORM YOU THAT THE GOVERNMENT OF VENEZUELA WILL REQUEST THE INCLUSION IN THE AGENDA FOR THE MEETING OF THE COUNCIL OF REPRESENTATIVES OF THE GATT, TO TAKE PLACE ON MARCH 23 OF THIS YEAR, OF THE POINT PERTAINING TO VENEZUELA'S PETITION OF FORMING A SPECIAL GROUP UNDER ARTICLE XXIII:2 OF THE GENERAL AGREEMENT, GIVEN THAT THE 60 DAY DEADLINE, THE TIME ESTABLISHED IN WHICH TO REACH A SATISFACTORY SOLUTION THROUGH CONSULTATIONS, EXPIRES ON MARCH 14.

NEVERTHELESS, I WISH TO EXPRESS TO YOU THE COMPLETE WILLINGNESS OF THE GOVERNMENT OF VENEZUELA TO CONTINUE WITH THE CONSTRUCTIVE DIALOGUE ESTABLISHED WITH THE GOVERNMENT OF THE UNITED STATES, IN ORDER TO REACH A RAPID RESOLUTION TO THIS SITUATION.

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PAGE 02 CARACA 01933 02 OF 02 101624Z
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 PANEL TO CONVENE AT NEXT GATT COUNCIL MEETING
 /SIGNED/
 ALBERTO POLETTO P.
 MINISTER OF STATE

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United States Department of State
Washington, D.C. 20520

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ACTION MEMORANDUM

94 MAR -4 P4:58

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TO: E - Mrs. Spero
FROM: ARA - Alexander F. Watson
SUBJECT: Inter-agency Meeting on Venezuelan Reformulated Gasoline, March 14

REQUEST: That you agree to participate in an inter-agency sub-cabinet meeting on March 14 to make a political-level decision on Venezuelan reformulated gasoline (RFG). We understand the NEC staff is arranging this meeting for 1:30 P.M.

PURPOSE: Resolve the RFG issue and prevent the Venezuelan government from taking the U.S. to a GATT panel at the end of the Article XXII 60-day consultation period which ends on March 14.

BACKGROUND: Venezuela will need an indication of U.S. intentions regarding RFG by March 14 or it may formally request a GATT panel to find against the U.S. State, USTR and EPA staff concur that Venezuela should be offered the September Compromise (see below). However, EPA will not take a final decision without convening a sub-cabinet meeting similar to the one held on December 14.

The latest version of the EPA options memorandum, to be completed before the meeting, includes two options: 1) retain the final RFG rule (do nothing); and 2) adopt foreign refiner individual baselines with a volume cap (previously known as the September Compromise). Several options related to the early use of EPA's complex model were discarded by EPA because they would be difficult to implement in a timely manner and could lead to a significant deterioration in air quality if extended to domestic refiners.

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IS/IFPC/CDR Date: 10/21/94

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United States Department of State
Washington, D.C. 20520

Bureau of Economic and Business Affairs

Facsimile Copy Cover Sheet

Date sent: FR
Number of Pages

(counting cover sheet)

From:

Telephone: 202-647-1476
Fax: 202-647-4037

TO:

- USTR

Subject: Comments on Paper

- 1) I attach our written comments on paper.
- 2) I attach USTR Comments, with our comments from State. (You have them from USTR.)
 - There is overall agreement on the thrust of USTR Comments
 - We have made similar in our test. → take what works best
 - We have indicated agreement where appropriate
 - In some cases we have supplied re-write test ^{of our paper} especially para 2 of Rationale for Baseline.
- 3) Lets discuss Monday. Thank you

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SUBJECT: REQUEST FOR MEETING BETWEEN ENERGY MINISTER
PARRA AND SECRETARY O'LEARY

REF: CARACAS 099145

1. THIS IS AN ACTION CABLE; SEE PARA 7.
2. SUMMARY. GOV ENERGY MINISTER PARRA HAS EXPRESSED INTEREST IN MEETING WITH ENERGY SECRETARY O'LEARY ON THE MARGINS OF AN OIL CONFERENCE IN LONDON ON OCTOBER 24 OR 25. ALTERNATIVELY, PARRA COULD MEET WITH SECRETARY O'LEARY DURING A TRIP TO THE U.S. HE PLANS TO MAKE IN THE NEXT SIX WEEKS. WE STRONGLY RECOMMEND SECRETARY O'LEARY ACCEPT THE INVITATION TO MEET WITH PARRA IN LONDON OR WASHINGTON. END SUMMARY.
3. GOV ENERGY AND MINES MINISTER ALIRIO PARRA HAS EXPRESSED INTEREST IN MEETING WITH ENERGY SECRETARY O'LEARY THIS MONTH OR NEXT, EITHER IN LONDON OR WASHINGTON. MAURO HOYER, PERSONAL ASSISTANT TO PARRA, HAS RAISED THE POSSIBILITY OF A MEETING IN LONDON ON THE MARGINS OF THE "INTERNATIONAL HERALD TRIBUNE"-SPONSORED OIL AND MONEY FORUM BEING HELD OCTOBER 25-26. HOYER INDICATED THE TIMING IN LONDON WOULD BE DIFFICULT, HOWEVER, SINCE PARRA WILL BE IN LONDON ONLY FOR ONE DAY, ARRIVING ON OCTOBER 24, AND DEPARTING AFTER DELIVERING THE OPENING ADDRESS ON OCTOBER 25. HE SUGGESTED AS POSSIBILITIES A DINNER MEETING ON THE 24TH OR A

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BREAKFAST MEETING ON THE 25TH
 4. ALTERNATIVELY, HOYER SAID PARRA WOULD PRO

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 THE U.S. SOME TIME DURING THE NEXT SIX WEEKS AND WOULD
 SEEK A MEETING WITH SECRETARY O'LEARY AT THAT TIME IF HE
 HAD NOT MET WITH HER IN LONDON. THE PRECISE TIMING OR
 DETAILS OF PARRA'S U.S. TRIP HAVE NOT YET BEEN SET. WE
 WILL ADVISE WHEN HIS PLANS BECOME MORE DEFINITE.
 5. ACCORDING TO HOYER, THE ONLY SPECIFIC ITEMS PARRA
 PLANS TO RAISE WITH SECRETARY O'LEARY ARE THE U.S.
 DOMESTIC OIL AND GAS INITIATIVE AND, IF IT REMAINS
 UNRESOLVED, THE ISSUE OF VENEZUELAN EXPORTS OF
 REFORMULATED GASOLINE TO THE U.S. (SEE REFTEL).
 6. COMMENT: ALTHOUGH HE HAS ONLY A FEW MONTHS LEFT IN
 OFFICE, PARRA REMAINS AN AUTHORITATIVE VOICE ON
 PETROLEUM AND ENERGY ISSUES, ON GOINGS-ON WITHIN OPEC,
 ON THE LATEST DEVELOPMENTS IN THE OPENING OF VENEZUELA'S
 OIL SECTOR TO FOREIGN FIRMS, AND ON VENEZUELAN PLANS FOR
 FURTHER INVESTMENTS IN THE ENERGY SECTOR IN THE U.S. IN
 ADDITION, VENEZUELA REMAINS THE U.S.'S SECOND LARGEST
 FOREIGN SUPPLIER OF OIL. WE RECOMMEND SECRETARY O'LEARY
 AGREE TO MEET WITH HIM IN LONDON OR IN WASHINGTON.
 7. ACTION REQUEST: PLEASE ADVISE IF THERE IS ANY
 POSSIBILITY OF A MEETING BETWEEN SECRETARY O'LEARY AND
 MINISTER PARRA IN LONDON ON OCTOBER 24 OR 25. DAVIDOW

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- The Government of Venezuela has raised this issue several times with EPA, DOE, USTR Capitol Hill, and State over the last six months.
 - They have insisted that they would take EPA's statute to the GATT, seeking retaliatory measures against the U.S., unless their concerns are met.
 - Our own internal review of the statute suggests that it might be a violation of article three of the GATT regarding "national treatment."
- We have told the Venezuelans that the matter is out of our jurisdiction.
- We did suggest to EPA that they should sit down with all interested parties, including U.S. refiners and the Venezuelans, to find a GATT acceptable compromise.
- Over the last few years, we have been pressing the Venezuelans very hard to open up their energy sector to U.S. oil companies -- and have realized some success to date.
 - Exxon, Shell and Mitsubishi have gotten Venezuelan Government and Congressional approval to go ahead with the 5.6 billion dollar Cristobal Colon LNG project -- the first majority foreign equity stake in Venezuela's oil sector since nationalization in 1976.
 - Venezuela has awarded five service contracts to American firms to reactivate idle oil field in Venezuela. One of the firms, Benton oil and Gas, is already producing oil. The other four have just gotten the go ahead. (Maxus, Occidental, Moshbacher Energy, Olympic).
 - Conoco is involved in a 2 billion dollar project to produce and upgrade Venezuelan heavy oil.
 - The Venezuelans are exploring "strategic association" joint ventures with several major U.S. oil companies.
- Venezuela is also a major procurer of oil and gas field equipment from the United States -- purchasing over one billion dollars per year through its Houston subsidiary.

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11/03/93

Dr. Alirio A. Parra is currently Minister of Energy and Mines of Venezuela and a highly respected economist in energy circles worldwide. His career spans more than three decades as a public servant and private consultant.

Educated at Cambridge University and George Washington University, Dr. Parra started his career as Assistant Attaché for Petroleum Affairs at the Venezuelan Embassy in Washington D.C. Between 1958 and 1970 he was Chief Economist of the Ministry of Energy and Mines. He has been senior partner of the consulting firm Parra, Ramos and Parra and a consultant in energy matters to the World Bank, the Inter-American Development Bank, and the United Nations.

As a member of the Presidential Commission on Oil Reversion in 1975, he helped shape the smooth transition of the Venezuelan oil industry from foreign multinational corporations to the newly created national oil company Petróleos de Venezuela (PDVSA), of which he became a founding Member of the Board (1975-1990) and Managing Director for International Trade. He was Managing Director (CEO) of Petróleos de Venezuela (Europe) from 1984 to 1990 and later Senior Advisor to the Chairman of the Center for Global Energy Studies in London.

He has been a keynote speaker at numerous conferences worldwide and his speeches and papers have been printed in journals and newsletters such as Petroleum Intelligence Weekly and the Middle East Economic Survey. He has published over 50 papers on petroleum economics, energy and geopolitics. He is also a past president of the International Association of Energy Economics (1989) and of the Organization of Petroleum Exporting Companies (OPEC) (1992-93). Until March 1992 he was Chairman of the British Institute of Energy Economics. He is also a member of the Reform Club in London.

As Energy Minister, he also presides over the Shareholders' Assembly of the PDVSA, the parent company of the U.S. independent oil companies Citgo and Unoven. Through the ownership of these oil refining and distribution networks, U.S. energy security has been strengthened and Venezuela has attained secure outlets for its crude and refined products.

Venezuela has the sixth-largest proven oil reserves in the world and is the second-largest foreign supplier to the U.S. of crude oil and refined products. In terms of non-oil trade, Venezuela is the U.S.' second largest trading partner in Latin America.

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United States Department of State

Washington, D.C. 20520

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TO: E - Mrs. Spero
FROM: ARA - Alexander F. Watson *AWS*
SUBJECT: Appointment Request: Alirio Parra, Minister of Energy of Venezuela

REQUEST: Office call at Energy Minister Parra's request
PURPOSE: To exchange views on global energy issues and concerns and to discuss bilateral issues.

OTHER APPOINTMENTS SOUGHT: Energy Minister Parra is meeting with Energy Secretary O'Leary.

BACKGROUND: Energy Minister Parra would like to discuss the prospects for global energy development and bilateral issues, including the domestic oil and gas initiative and environmental protection regulations relating to reformulated gasoline. Venezuela is the second largest supplier of imported oil to the United States, as well as our second largest export market in Latin America. Venezuela will hold elections on December 5; a meeting with Energy Minister Parra would serve as a reminder of U.S. interest in preserving the democratic process in Venezuela.

TIMING: Friday, November 12 for 30 minutes between 12 noon and 2 p.m.

LOCATION: Your Office

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MEDIA: None

PROPOSED

PARTICIPANTS:	U.S.	Venezuela
---	Edward Casey, Deputy	Alirio Parra, Energy
---	Assistant Secretary of	Minister, Venezuela
---	State for South America	
---		Alberto Consalvi,
---		Ambassador of Vene-
---		zuela to the U.S.
---	Glen Rase, Director,	Luis Grisanti,
---	Office of Global Energy	Minister-Counselor
---		Venezuelan Embassy
---	Perry Ball, notetaker	

RECOMMENDATION

That you agree to meet Energy Minister Parra between noon and 2 p.m. Friday, November 12 for 30 minutes.

Approve _____ Disapprove _____

Time _____

Attachment:

Biographic Information.

*UBEd -
Visit postponed
per Airt.
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P.6

FINANCIAL TIMES THURSDAY DECEMBER 9 1993

Venezuela heading away from trade liberalisation

By Stephen Fidler in Caracas

Mr Rafael Caldera, victor in Venezuela's presidential election on Sunday, is expected to consider measures to revise the free trade policy of that government of former President Carlos Andrés Pérez.

Economic advisers to Mr Caldera indicated this week they were examining ways of overturning aspects of the trade liberalisation, in order to encourage development of Venezuelan industry.

One adviser, Mr Rafael Kries, was quoted yesterday in the Economic Hoy newspaper as describing the Pérez trade policy as "unconditional and indiscriminate". A return to protection would not be indiscriminate, he said, and there were "para-tariff mechanisms" that Venezuela could

use to help industry.

Mr Caldera said this week he was sympathetic to hemispheric trade integration, and that the North American Free Trade Agreement between the US, Canada and Mexico was a "very interesting idea". Venezuela has been mentioned by US officials as a possible Nafta candidate.

But Mr Caldera - scheduled to begin his five-year term in February - also said: "I doubt very much whether we'll arrive at the point that we'll be able to join Nafta in the next five years."

Businessmen said this week Venezuela's obligations under Nafta and its economic integration agreements under the Andean Pact and the Group of Three - which brings Venezuela together with Colombia and Mexico - would limit the

new government's freedom of action to increase protectionism. The Andean Pact has agreed on a four-level common external tariff with a maximum of 20 per cent.

Mr Pedro Vallanilla, president of the Venezuelan paper producer, Veneapel, which forms part of the Mendoza group of companies, said the Andean pact meant the common external tariff "cannot be changed unilaterally by Venezuela".

The Andean Pact groups Venezuela with Colombia, Ecuador, Bolivia and Peru, but Peru's membership has been temporarily suspended. There have been concerns Mr Caldera's strong nationalist streak could increase tensions with Colombia over the disputed Gulf of Venezuela.

The interim government of



Caldera: seeks to help industry

Mr Ramon Velasquez has already implemented several measures to protect agriculture, and there is pressure for protection from other industries - notably textiles and shoes.

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IS/FPC/COR *FR* Date: 10/21/94

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Reform Shift Feared in Venezuela

Washington Post 12/16/83
page A-15

Venezuela Vote Stirs Concern Over Economy

By Tod Robberson
Washington Post Foreign Service

CARACAS, Venezuela, Dec. 6

With the vote still being counted after Sunday's presidential elections here, concerns are surfacing already about the apparent winner's threat to reverse many of his predecessor's U.S.-supported economic policies.

Rafael Caldera, a 77-year-old former president who appears to have won the vote, sent signals during the campaign that he would halt current efforts at privatizing state-owned enterprises, liberalizing trade and boosting taxes to raise revenue for the cash-strapped government. International investors in Venezuela expressed concern at that stance.

But analysts here say Caldera could face many obstacles carrying out his pledges, especially considering that his precarious campaign coalition of communists and right-wingers is expected to carry little political weight in the legislature. The official vote count has yet to be announced for the presidential and legislative elections, but all major candidates have conceded victory to Caldera.

Both the Clinton and Bush administrations encouraged free-market policies here as part of an effort to bolster regional economic integration and open Latin American markets to U.S. investors. Privatization and other free-market measures had attracted billions of dollars in U.S., Eu-

800 VENEZUELA, A18, Col. 1



RAFAEL CALDERA
...pledged reform reversal

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VENEZUELA, From A18

European and Asian investment, especially in this country's huge petroleum sector, where \$12 billion worth of foreign-run projects are being negotiated.

In Venezuela, the third-largest exporter of petroleum to the United States, he expressed a desire for inclusion in the North American Free Trade Agreement, and on Sunday he concluded a regional trade accord with Mexico and Colombia. But Caldera says he is rethinking Venezuela's posture on foreign trade for the short term and does not expect his country to join any formal partnership with the United States during his five-year term.

He told reporters today that he viewed privatization "as neither bad in itself, nor is it a panacea" for Venezuela's economic ills and said he would review future privatization plans on a case-by-case basis. In general, he added, "I am against this epidemic of privatization."

The trade-liberalization policies and the free-market reforms of Caldera's predecessors have been highly unpopular among poor and middle-class Venezuelans. In interviews throughout Caracas, a commonly expressed fear is that foreigners would come here to exploit Venezuelan resources while the nation watched wages, buying power and living standards drop amid a deepening recession.

According to official statistics, 40 percent of the population lives in poverty while inflation is approaching an annual rate of 45 percent. In his campaign, Caldera pledged to confront "the nefarious economic policy that has caused so much harm to the country." But so far he has been short on specifics, other than a promise to repeal a 10 percent value-added tax on consumer goods.

Increased foreign investment, particularly in petroleum projects, has been perceived by many Venezuelans as encroachment on cherished national patrimony, and Caldera openly exploited that sentiment during his campaign against the two traditional ruling parties that have alternately shared the presidency for the past 35 years.

Both of those parties, the social-Christian Copei and social-democratic Democratic Action, support existing free-market programs, and they are expected to maintain their dominant positions in the legislature.

Because Caldera is likely to face a political impasse in the legislature, diplomats and other analysts discounted many of his campaign pledges as populist bluster. Nevertheless, during his previous presidential term in 1969-73, Caldera exhibited a clearly protectionist bent. Among other actions, he abrogated a U.S.-Venezuela trade accord.

One diplomat said, however, that Caldera appears to have matured since then. "This man is no wild-eyed radical, nor is he living in the past. He's pretty pragmatic... once you slash through the jungle of campaign rhetoric."

Part of the country's economic salvation lies in its ability to attract foreign capital, the diplomat said, and Caldera would risk frightening investors away if he follows through with plans to renegotiate the country's \$27 billion foreign debt.

"He's certainly going to want to make the debt a topic of... multilateral concern," the diplomat said. "But I don't think it'll help attract [foreign capital] by embarking on a renegotiation."

Pedro Palma, general manager of the Boon Allen Hamilton consulting firm here, said that despite Caldera's bold statements, he appeared to be assembling a management team that includes many of the free-market supporters who advised previous governments.

Among them, Caldera reportedly is considering reinstating Alirio Faria, former president of the Organization of Petroleum Exporting Countries, as oil minister. Faria, an ardent supporter of privatization and free-market reforms, resigned as oil minister last May when president Carlos Andres Peres was impeached on corruption charges.

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NYT 12/7/93

2 Entrenched Parties Rejected in Venezuela

Approved by The New York Times

CARACAS, Venezuela, Dec. 5 — Rafael Caldera Rodriguez, a populist with a reputation for honesty, was elected President today, three voter surveys projected.

Mr. Caldera, 77, who was President in the early 1970's, was returned to office by voters who turned against the two parties that have alternated in governing this country for 35 years.

Alienated by political corruption and economic recession, the voters migrated toward two independent candidates, Mr. Caldera and Andres Velasquez, of the Radical Cause party. Mr. Caldera, who captured about 30 percent of the vote, according to the surveys, will take office on Feb. 2, facing a Congress fractured among four parties.

Voting was peaceful, and much of the political tension seems to have drained away.

"The time is over when people thought that democracy would perish," President Ramon J. Velasquez assured the nation today.

"Some people will keep on thinking that the solution is a military coup, but the majority will think that democracy is the way," predicted Rafael Puerta, 42, a pediatrician who served as a poll watcher for Mr. Caldera's Conver-gence coalition.

EMBAJADA DE VENEZUELA
WASHINGTON, D. C.

Nº 2142/M-12a

cc: OGE
OES

December 10, 1993

The Honorable Joan E. Spero
Under Secretary for Economic
and Agricultural Affairs
U.S. Department of State
Room 7256
2201 C Street, N.W.
Washington, D.C. 20520

Handwritten: *Handwritten signature*
Joan Spero, 12/13/93

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Dear Mrs. Spero:

It was a pleasure to meet with you today. We truly believe that we have a sound, solid position that stands on its own technical merits. Venezuela's reformulated gasoline, notwithstanding its higher olefins content, but because of its much lower aromatic and benzene content, will result in an 18 percent greater reduction in toxic emissions than the average U.S. reformulated gasoline.

As far as verification is concerned, we are willing to discuss any proposal with EPA to guarantee that the emission levels of Volatile Organic Components (VOC), Nitrogen Oxide (NOX), and Air Toxics (TOX) will conform with EPA regulations.

If Venezuela is not permitted to use its own baselines for 1990, the American consumer will be deprived of environmentally sound gasoline from my country during the transition period 1995-97, and this will ultimately become a trade restricting measure.

Sincerely,

Handwritten signature of Alirio A. Parra
Alirio A. Parra

Minister of Energy and Mines

EMBAJADA DE VENEZUELA
WASHINGTON, D.C. 20007

JULIO SOSA RODRÍGUEZ

BIOGRAPHICAL NOTE

Ambassador Julio Sosa Rodríguez is one of the most distinguished businessmen and public figures in Venezuela. His family has been notable in agriculture for several generations.

He was born in Caracas in 1923 and was educated in Venezuela, France and the United States. He holds degrees in civil and petroleum engineering, and studied at Cornell University and the University of Oklahoma.

He started his career in the oil industry in the mid 1940's, but quickly moved to found his own construction company "Edificaciones C.A.", one of the largest in its field, now run by one of his sons. He later founded "Seguros Orinoco", one of the largest insurance companies in Venezuela, of which he remains vice-chairman of the board.

He is also founder and chairman of the board of Industrias Venoco, C.A., one of the leading chemical and petrochemical companies in Venezuela. In the early 1980's, he founded Banco del Orinoco, of which he is also chairman of the board.

In the public arena, he was Ambassador from Venezuela to the United States between 1969 and 1971 and a founding Member of the Board of Directors of Petroleos de Venezuela (PDVSA), the national oil company, in 1975-1976. In 1992, he was appointed to serve in the six member Presidential Commission which recommended a set of measures to reform the judicial and political systems, broaden the scope of people's participation in the democratic process, strengthen the autonomy of the Central Bank, and reduce the fiscal deficit.

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EMBAJADA DE VENEZUELA
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ALFIRIO A. PARRA
BIOGRAPHICAL NOTE

Dr. Alfirio A. Parra is currently Minister of Energy and Mines of Venezuela and a highly respected economist in energy circles worldwide. His career spans through more than three decades of public service as well as a private consultant.

Educated at Cambridge University, England, and The George Washington University, Dr. Parra started his career as a Assistant Attaché for Petroleum Affairs at the Venezuelan Embassy in Washington D.C. Between 1958 and 1970 he was Chief Economist of the Ministry of Energy and Mines. He has been Senior Partner of the consulting firm Parra, Ramos and Parra (PR&P) and a consultant in energy matters to the World Bank, The Interamerican Development Bank and the United Nations.

As a member of the Presidential Commission on Oil Reversion in 1975, he helped shape the smooth transition of the Venezuelan oil industry from the foreign oil multinational corporations to the newly created national oil company Petróleos de Venezuela S.A., (PDVSA), of which he became a founding Member of the Board (1975-1990) and Managing Director for International Trade. He was Managing Director (CEO) of Petróleos de Venezuela (Europe) from 1984 to 1990 and later Senior Advisor to the Chairman of the Center for Global Energy Studies in London.

He has been a keynote speaker at numerous conferences worldwide and his speeches and papers have been printed in journals and newsletters such as Petroleum Intelligence Weekly and the Middle East Economic Survey. He has published well over 50 papers on petroleum economics, energy and geopolitics. He is also a past president of the International Association of Energy Economics (1989) and of the Organization of Petroleum Exporting Countries (OPEC) (1992-93). Until March 1992, he was Chairman of the British Institute of Energy Economics (BIEE) and is also a member of the Reform Club, London.

As Energy Minister, he also presides over the Shareholders' Assembly of PDVSA, the parent company of U.S. independent oil companies Citgo and Unoven. Through the ownership of these oil refining and distribution networks, U.S. energy security has been strengthened and Venezuela has attained secure outlets for its crude and refined products.

Venezuela ranks sixth among the countries with the largest proven oil reserves in the world, is U.S. second foreign supplier of crude oil and refined products and in terms of non-oil trade Venezuela is U.S. second largest trading partner in Latin America.

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PAGE 02 CARACA 11029 01 OF 02 132127Z

E.O. 12356: N/A
 TAGS: EPET, ENRG, PREL, VE
 SUBJECT: REFORMULATED GASOLINE RECEIVES MAJOR MEDIA
 - ATTENTION AFTER GOV OFFICIALS SPEAK OUT
 REF: A) CARACAS 10703 B) CARACAS 10657 C) CARACAS 9145
 1. SUMMARY. IN THE LAST FEW DAYS, REFORMULATED
 GASOLINE HAS RECEIVED FRONT-PAGE PRESS COVERAGE AS
 SENIOR GOV OFFICIALS, INCLUDING THE VENEZUELAN
 PRESIDENT, MINISTER OF ENERGY, PRESIDENT OF PDVSA, AND
 CALDERA'S TOP ECONOMIC ADVISER HAVE ALL SPOKEN OUT ON
 THE ISSUE. REFORMULATED GASOLINE HAS BECOME A MAJOR
 POLITICAL AND ECONOMIC ISSUE HERE AND IS SEEN AS THE
 FIRST TEST OF PRESIDENT CLINTON'S POST-NAFTA TRADE
 POLICY. WE CAN EXPECT EXTREMELY NEGATIVE REACTIONS AND
 THE DISSIPATION OF THE GOOD WILL GENERATED BY THE NAFTA
 IF THE EPA'S DECISION GOES AGAINST VENEZUELA. END
 SUMMARY.
 2. THE REFORMULATED GASOLINE ISSUE HAS BEEN SPLASHED
 OVER THE FRONT PAGES OF THE VENEZUELAN PRESS IN THE LAST
 FEW DAYS FOLLOWING PUBLIC COMMENTS ON THE ISSUE MADE BY
 HIGH-LEVEL GOV OFFICIALS, INCLUDING PRESIDENT VELASQUEZ,
 PDVSA PRESIDENT ROJSEN, ENERGY AND MINES MINISTER PARRA,
 AND JULIO SOSA, TOP ADVISER TO PRESIDENT CALDERA.
 3. PRESIDENT VELASQUEZ, COMMENTING DURING A PRESS
 CONFERENCE ON THE VISIT BY SOSA AND PARRA TO THE U.S. TO
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DISCUSS REFORMULATED GASOLINE, DESCRIBED THE PROBLEM AS "VERY SERIOUS" FOR VENEZUELA, AND POSSIBLY AFFECTING

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PAGE 03 CARACA 11029 01 OF 02 132127Z
50,000 BARRELS PER DAY OF VENEZUELAN GASOLINE EXPORTS TO THE U.S. VELASQUEZ SAID HE HAD ASKED SOSA TO ACCOMPANY PARRA ON THE VISIT TO WASHINGTON BECAUSE THE CALDERA GOVERNMENT WILL HAVE TO DEAL WITH THE ISSUE IN THE FUTURE.

4. ROOSEN, IN TURN, SPEAKING PUBLICLY ON THE ISSUE FOR THE FIRST TIME, SAID IT HAD BECOME A AFFAIR OF STATE FOR VENEZUELA AND ADDED THAT THE ACTIONS OF U.S. REFINERS COULD ALTER THE LONGSTANDING GOOD ECONOMIC AND POLITICAL RELATIONS BETWEEN THE TWO COUNTRIES.

ACKNOWLEDGING THAT THE EPA IS AN INDEPENDENT AGENCY AUTONOMOUS IN ITS DECISIONS, ROOSEN SAID THAT DISCRIMINATING AGAINST VENEZUELAN GASOLINE WOULD CONTRADICT THE FREE-TRADE POLICIES OF THE U.S. GOVERNMENT AND VIOLATE THE GATT.

5. ROOSEN WENT ON TO SAY THE USG IS COMPLETELY FAMILIAR WITH THE TECHNICAL PARAMETERS OF VENEZUELAN GASOLINE AND REFERRED TO VENEZUELA'S RECORD AS A SURE AND RELIABLE SUPPLIER OF JIL TO THE U.S. FOR 70 YEARS. HE SAID THE PRESSURE EXERTED BY U.S. REFINERS AMOUNTED TO UNFAIR TRADE TACTICS PROMPTED BY NARROW PROFIT MARGINS IN A HIGHLY COMPETITIVE MARKET. ROOSEN ALSO WARNED THAT THE BATTLE OVER REFORMULATED GASOLINE COULD BE THE FIRST IN A SERIES OF PROTECTIONIST ATTACKS ON VENEZUELAN OIL EXPORTS BY CERTAIN SEGMENTS OF THE U.S. OIL INDUSTRY.

6. PARRA AND SOSA SPOKE OF THEIR VISIT TO WASHINGTON AND VIGOROUSLY DEFENDED THE VENEZUELAN POSITION. PARRA, AS HAD VELASQUEZ, DESCRIBED REFORMULATED GASOLINE AS AN AFFAIR OF STATE AND ADDED, "WE HAVE THE MORAL AND

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PAGE 04 CARACA 11029 01 OF 02 132127Z
TECHNICAL AUTHORITY TO OBTAIN THE SAME TREATMENT AS U.S. REFINERS. WE ARE NOT SEEKING AN EXCEPTION, JUST EQUAL TREATMENT."

7. COMMENT: REFORMULATED GASOLINE HAS BECOME A MAJOR POLITICAL AND ECONOMIC ISSUE HERE, GOING FAR BEYOND THE VALUE OF THE EXPORTS THAT WOULD BE AFFECTED BY A NEGATIVE EPA RULING. RIGHTLY OR WRONGLY, THE ISSUE IS SEEN HERE AS THE FIRST TEST OF PRESIDENT CLINTON'S

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PAGE 01 CARACA 11029 02 OF 02 132123Z

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PAGE 02 CARACA 11029 02 OF 02 132123Z

E.O. 12356: N/A

TAGS: EPET, ENRG, PREL, VE

SUBJECT: REFORMULATED GASOLINE RECEIVES MAJOR MEDIA

- ATTENTION AFTER GOV OFFICIALS SPEAK OUT

POST-NAFTA TRADE POLICY TOWARDS VENEZUELA AND LATIN

AMERICA. WE CAN EXPECT AN EXTREMELY NEGATIVE REACTION

HERE. FROM GOV OFFICIALS AND THE PUBLIC. IF THE EPA'S

DECISION ON DECEMBER 15 GOES AGAINST VENEZUELA. THE

GOOD WILL AND HOPE GENERATED BY THE SUCCESSFUL

CONCLUSION OF THE NAFTA WOULD RAPIDLY DISSIPATE.

DAVIDOW

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STATE PLEASE PASS USIB FOR BURO-BREDIE AND EPA

DOE FOR PUMPHREY

E.O. 12356: N/A
 TAGS: EPET, ETRO, ENRG, PREL, VE
 SUBJECT: LETTER TO SECRETARY FROM FOREIGN OCROA ON
 REFORMULATED GASOLINE

- SUMMARY: THE SECRETARY HAS RECEIVED LETTER FROM VENEZUELAN FOREIGN MINISTER STATING THAT A NEGATIVE DECISION ON THE REFORMULATED GAS ISSUE WOULD HAVE A MAJOR IMPACT ON THE VENEZUELAN ECONOMY AND THE INTERNAL POLITICAL SITUATION. END SUMMARY.
- FOLLOWING IS TRANSLATED TEXT OF LETTER DATED DECEMBER 10 FROM MINISTER OF FOREIGN AFFAIRS FERNANDO OCROA AMTICH TO SECRETARY CHRISTOPHER. LETTER WAS HAND DELIVERED TO DCM BY DIRECTOR OF MOFA ECONOMIC AFFAIRS OFFICE THIS AFTERNOON.
- BEGIN TEXT: YOUR EXCELLENCY: I AM TAKING THE OPPORTUNITY TO WRITE TO YOU IN REFERENCE TO THE FINAL REGULATION ON REFORMULATED GASOLINE WHICH THE ENVIRONMENTAL PROTECTION AGENCY OF THE UNITED STATES (EPA) WILL BE ISSUING ON 15 DECEMBER, 1993, A TOPIC WHICH HAS GIVEN RISE TO POLITICAL DEBATE IN THIS COUNTRY.
- THE REGULATION WOULD DISCRIMINATE AGAINST THE VENEZUELAN PRODUCT, IN VIOLATION OF ARTICLE III OF THE GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT), RELATIVE TO THE PRINCIPLE OF NATIONAL TREATMENT OF IMPORTED GOODS BY THE CONTRACTING PARTIES.
- OUR PETROLEUM COMPANY (POVSA) HAS ESTIMATED THAT THE ISSUANCE OF SUCH A DECISION WOULD AFFECT OUR EXPORTS OF REFORMULATED GASOLINE TO THE UNITED STATES, REDUCING THEM BY 50 THOUSAND BARRELS A DAY, IN SPITE OF IMPORTANT INVESTMENTS OF ONE BILLION DOLLARS THAT VENEZUELA HAS MADE IN ITS DOMESTIC REFINING SYSTEM AND IN THE UNITED STATES ALLOWING US BY 1995 TO COMPLY WITH THE REQUIRED ENVIRONMENTAL PROCEDURES IN THIS MATTER.
- YOU ARE AWARE THAT VENEZUELA HAS BEEN AND CONTINUES TO BE AN IMPORTANT SUPPLIER OF PETROLEUM AND ITS PRODUCTS TO THE UNITED STATES. PROOF OF THIS HAS BEEN OUR CONSTANCY IN TROUBLED TIMES, IN PERIODS LIKE THE SECOND WORLD WAR OR THE RECENT GULF WAR, WHEN WITH

EFFORT OUR PRODUCTION CAPACITY WAS RAISED TO LEVELS REQUIRED BY THE SCARCITY GENERATED BY THE CONFLICT. WE HAVE BEEN WITH THE UNITED STATES IN VERY IMPORTANT DECISIONS FOR YOUR COUNTRY IN THE SECURITY COUNCIL OF THE UNITED NATIONS, AS WELL AS THE RECENT CASES OF LIBYA AND IRAQ.

7. THE CLOSE POLITICAL AND ECONOMIC TIES BETWEEN OUR COUNTRIES CAUSE US TO HOPE THAT VENEZUELA'S POSITION AS A TRUSTWORTHY HEMISPHERIC PARTNER WILL BE RECOGNIZED AND THAT THE FREE TRADE PRINCIPLES WHICH WE HAVE PURSUED SO VIGOROUSLY IN THE URUGUAY ROUND BE WILL PRESERVED.

8. A NEGATIVE DECISION WOULD HAVE AN EVEN GREATER EFFECT ON OUR ECONOMY AND WILL CLEARLY HAVE A NEGATIVE INTERNAL POLITICAL IMPACT ON DEMOCRATIC STABILITY AND ON THE VENEZUELAN DEVELOPMENT PROCESS. SIGNED: FERNANDO OCROA AMTICH. END TEXT. OAV/DOM

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IS/SPC/ODR *Stine* date: 10/21/94

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Henry

December 15, 1993, 6:15pm

Mrs. Spero:

Ambassador Watson asked that I pass the following information to you:

Amb. Watson has spoken to the Venezuelan Minister of Energy and so advised Bo Cutter's office.

The Minister is revising a communique that he already prepared in the event our decision was negative to reflect that the EPA and the GOV will continue discussions.

I (Amb. Watson) believe, however, that the communique will also include a reference that GOV is appealing to the GATT. I think that's OK.

With respect,

cc:

DEPARTMENT OF STATE		IS / PFC / OOR <i>JMC</i> Date: <i>10/24/94</i>	
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Talking Points Provided by EPA Director Dick Wilson
to A/S Watson on 12/15/93

1. EPA is putting out a final rule that is unchanged from the one the EPA was working on before.
2. EPA has had long discussions with the Venezuelans who put forth interesting proposals to deal with the environmental issues, but, unfortunately, we ran out of time.
3. However, the door is still open to further discussions if the Venezuelans are still interested.

Press Briefing Regarding Venezuela
by EPA Assistant Administrator Mary Nichols on 12/16/93

- Q. Isn't this a protectionist measure?
(question by unidentified Venezuelan journalist)
- A. No, what we were announcing was not the final say-so on Venezuelan fuel. The program does not go into effect until January 1, 1995. State and EPA will be talking to the GOV to see if there is a way to resolve the situation.
(rough paraphrase by EPA Public Liaison Officer John Kasper)
- Q. To what end will the EPA and the Venezuelans hold these meetings?
(question by Platt's Oilgram Reporter Gerald Karey)
- A. The EPA was approached by Venezuela (during the reformulated gasoline rulemaking process) with some ideas and proposals for different ways of treating foreign refiners. We will be looking at those proposals in the future. We expect to continue conversations with the government and the Venezuelan oil industry.
(extract from Platt's Oilgram News of 12/17/93)

12/17/93

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PAGE 01 CARACA 11173 01 OF 02 171810Z

ACTION EB-01
 INFO LOG-00 ACDA-17 AID-01 ARA-01 CEA-01 CEQ-00 CIAE-00
 CTME-00 C-01 OASY-00 DINT-05 OODE-00 EXIM-06 E-01
 FRB-03 HA-09 H-01 TEDE-00 INR-00 ITC-01 JUSE-00
 L-03 AOS-00 NSAE-00 OES-09 OMB-01 OPIC-08 PA-01
 PM-02 PRS-01 P-01 SNP-00 SP-00 SS-00 STR-16
 TRSE-00 T-00 USIE-00 EPAE-00 /D90W
 -----118FB9 171812Z /38

P 171809Z DEC 93
 FM AMEMBASSY CARACAS
 TO SECSTATE WASHDC PRIORITY 4889
 INFO WHITEHOUSE WASHDC
 USOOC WASHDC
 DOE WASHDC

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 STATE PLS PASS USTR FOR SURO-BREDIE
 NSC FOR FEINBERG
 USOOC FOR 3134/USFCS/OIO/D/WH/TAFT
 4331/IEP/WH/75A/BRUCE AND ZEIGER
 DOE FOR PUMPHREY
 E.O. 12356: N/A

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PAGE 02 CARACA 11173 01 OF 02 171810Z

TARS: EPET, ENRG, ETRD, PREL, VE
 SUBJECT: REFORMULATED GASOLINE: VENEZUELAN REACTION TO
 - EPA DECISION

REF: CARACAS 11029 AND PREVIOUS

- SUMMARY. AS EXPECTED, THE VENEZUELAN PRESS GAVE FRONT-PAGE COVERAGE TO THE EPA'S DECISION ON REFORMULATED GASOLINE AND TO THE GOV'S REACTION TO IT AS EXPRESSED BY ENERGY MINISTER PARRA. PARRA WAS CRITICAL OF THE DECISION AS PROTECTIONIST AND DISCRIMINATORY, AND SAID THE GOV WOULD TAKE ITS CASE TO THE GATT. NEVERTHELESS, HIS TONE WAS MODERATE. HE MADE IT CLEAR THAT THE GOV WANTS TO CONTINUE NEGOTIATIONS WITH THE U.S. AND IS STILL HOPEFUL THAT A SATISFACTORY SOLUTION WILL BE FOUND BEFORE 1995. END SUMMARY.
- AS EXPECTED, THE EPA'S DECEMBER 15 DECISION DENYING VENEZUELA ITS OWN BASELINE FOR REFORMULATED GASOLINE EXPORTS AND THE GOV REACTION TO THE DECISION HAVE RECEIVED FRONT-PAGE COVERAGE IN THE VENEZUELAN PRESS. THE GOV'S REACTION WAS CONVEYED IN A COMMUNIQUE ISSUED BY MINISTER OF ENERGY AND MINES ALIRIO PARRA AND IN REMARKS PARRA MADE TO THE PRESS ON DECEMBER 16. PARRA'S COMMENTS AND THE CONTENT OF THE COMMUNIQUE WERE FAITHFULLY REPORTED IN THE PRESS.
- PARRA CRITICIZED THE EPA DECISION AS CLEARLY DISCRIMINATORY, DIRECTLY AFFECTING VENEZUELA'S INTERESTS

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PAGE 1

10/20/94 135733 PRINTER: HG

93 CARACAS 11173

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(SEVERAL ARTICLES NOTED THAT IT WOULD AFFECT 50,000 BARRELS OF GASOLINE EXPORTS PER DAY WITH A VALUE OF SOME USD 150

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PAGE 03 CARACA 11173 01 OF 02 171810Z
MILLION PER YEAR), AND IN VIOLATION OF ARTICLE 3 OF THE GATT. PARRA DESCRIBED THE DECISION AS CONTRARY TO THE POLICIES OF COMMERCIAL INTEGRATION AND FREE TRADE ESPOUSED BY THE U.S. IN THE NAFTA AND THE NEW GATT ACCORD. HE FOUND IT PARADOXICAL THAT THE EPA HAD ISSUED THE REGULATIONS ON THE SAME DAY THAT THE U.S. AND OTHER COUNTRIES HAD SIGNED THE WORLD'S MOST IMPORTANT TRADE ACCORD.

4. PARRA CONTINUED THAT IN FORMULATING THE REGULATIONS, PROTECTIONIST PRESSURES HAD PREVAILED OVER ENVIRONMENTAL ISSUES. HE SAID VENEZUELA WOULD IMMEDIATELY BEGIN THE PROCESS OF BRINGING ITS CASE BEFORE THE GATT. HE ALSO SAID THE GOV WOULD RESUME DISCUSSIONS WITH EPA IN AN ATTEMPT TO PERSUADE IT TO REVOKE THE DISCRIMINATORY ASPECTS OF THE REGULATIONS.

5. PARRA NOTED THAT THE GOV AND PDVSA HAD WORKED CLOSELY WITH THE EPA FOR THREE YEARS AS THE AGENCY PREPARED ITS REGULATIONS. HE REITERATED THAT VENEZUELAN GASOLINE MET ALL THE NEW U.S. ENVIRONMENTAL REQUIREMENTS AND HAD EMISSIONS LEVELS EQUAL TO OR BELOW THE U.S. AVERAGE. PARRA EXPRESSED CONCERN THAT THE EPA DECISION CREATED AN UNFAIR PRECEDENT AGAINST EXPORTERS OF PETROLEUM PRODUCTS SUCH AS VENEZUELA BY USING ENVIRONMENTAL REGULATIONS FOR PROTECTIONIST PURPOSES.

6. DESPITE HIS CRITICISM OF THE EPA DECISION, PARRA EMPHASIZED THAT "THE DOORS ARE NOT CLOSED TO FURTHER NEGOTIATIONS" WITH THE U.S. AND THAT HE WAS STILL HOPEFUL THAT AN EQUITABLE AGREEMENT COULD BE REACHED

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PAGE 04 CARACA 11173 01 OF 02 171810Z
BEFORE THE RESTRICTIONS BECOME EFFECTIVE IN 1995. ALL THE PRESS STORIES PICKED UP ON THIS ASPECT OF THE MINISTER'S REMARKS AND MADE IT CLEAR THAT A SOLUTION THAT MET VENEZUELAN CONCERNS WAS STILL POSSIBLE.
7. COMMENT: NEITHER THE WIDESPREAD PRESS COVERAGE NOR THE CRITICISM OF THE EPA DECISION WAS A SURPRISE. MINISTER PARRA'S TONE, HOWEVER, ONE WHICH HE CONVEYED EFFECTIVELY TO THE PRESS, WAS MODERATE. OBVIOUSLY, THE CONCILIATORY RESPONSE IS BASED ON VENEZUELAN

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PAGE 2

10/20/94 135733 PRINTER: HG

93 CARACAS 11173

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PAGE 01 CARACA 11173 02 OF 02 171811Z

ACTION EB-01

INFO	LOG-00	ACDA-17	AIO-01	ARA-01	CEA-01	CEQ-00	CIAE-00
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	FRE-03	HA-09	H-01	TEDE-00	INR-00	ITC-01	JUSE-00
	L-03	AOS-00	NSAE-00	OES-09	GMB-01	OPIC-08	PA-01
	PM-02	PRS-01	P-01	SNP-00	SP-00	SS-00	STR-16
	TRSE-00	T-03	USIC-00	EPAE-00	/090W		

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FM AMEMBASSY CARACAS

TO SECSTATE WASHDC PRIORITY 4890

INFO WHITEHOUSE WASHDC

USDOC WASHDC

DOE WASHDC

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STATE P: S PASS USTR FOR SURU-BREDIE

NSC FOR FEINBERG

USDOC FOR 3134/USFCS/OIO/O/WH/TAFT

4331/IEP/WH/OSA/BRUCE AND ZEIGER

DOE FOR PUMPHREY

E.O. 12356: N/A

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PAGE 02 CARACA 11173 02 OF 02 171811Z

TAGS: EPET, ENRG, ETRD, PREF, VE

SUBJECT: REFORMULATED GASOLINE: VENEZUELAN REACTION TO
- EPA DECISION

EXPECTATIONS THAT A SATISFACTORY SOLUTION CAN BE REACHED BEFORE 1995. VENEZUELA DOES INTEND TO TAKE ITS CASE TO THE GATT, BUT CLEARLY WOULD PREFER TO REACH AGREEMENT IN BILATERAL NEGOTIATIONS WITH THE U.S. PARRA HIMSELF NOTED THAT THE FIRST STEP IN A GATT COMPLAINT IS TO CONDUCT TALKS WITH THE U.S. THE MINISTER'S PERSONAL ASSISTANT, ALSO CONFIRMED TO US THAT THE GOV WOULD PREFER TO RESOLVE THE ISSUE BILATERALLY. HOWEVER, IF NEGOTIATIONS WITH THE U.S. ARE UNSUCCESSFUL, THE GOV IS CLEARLY PREPARED TO LET THE GATT PROCESS PLAY ITSELF OUT TO THE END.

DAVIDOW

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PAGE 01 CARACA 11176 01 OF 03 171823Z

ACTION ARA-01

INFO	LDG-00	ACDA-17	AID-01	CEA-01	CIAE-00	CTME-00	C-01
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	HA-09	H-01	TEDE-00	INR-00	ITC-01	JUSE-00	L-03
	ADS-00	NSAE-00	NSCF-00	OMB-01	GPIC-08	PA-01	PM-02
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USDOC FOR 3134/OID/WH/JVLAVIANOS/RTAFT/JRAUNER

USDOC FOR 4331/TEP/WH/OSA/AND/LZEIGER

STATE PLEASE PASS TO OPIC/A.ROSEN

STATE PLEASE PASS TO EXIMBANK/R.RODRIGUEZ

TREASURY FOR UASIA/ENTL-ELLEN WYATT

E.O. 12356: N/A

TAGS: BEXP, ECON, ETRD, PGOV, VE

SUBJECT: PRESIDENT-ELECT CALDERA SPEAKS AT VENAMCHAM

GENERAL MEETING--CAUTIOUSLY HINTS AT INTEREST IN WESTERN

HEMISPHERE FREE TRADE AGREEMENT

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PAGE 02 CARACA 11176 01 OF 03 171823Z

RFF: CARACAS 8800

1. SUMMARY: PRESIDENT-ELECT CALDERA ACCEPTED VENAMCHAM'S INVITATION TO SPEAK AT THE ORGANIZATION'S GENERAL MEETING ON DECEMBER 15. THE MEETING AGENDA INCLUDED ELECTIONS OF OFFICERS AND BOARD MEMBERS FOR 1994, REMARKS BY AMBASSADOR DAVIDSON AND VENAMCHAM PRESIDENT STEPHEN FELLOWS, AND THEN THE SPEECH BY PRESIDENT-ELECT CALDERA. CALDERA'S PRESENCE AND HIS WARMTH TOWARD'S THE BUSINESS GROUP WERE TAKEN AS VERY FAVORABLE SIGNALS BY THE VENAMCHAM MEMBERS.

2. CALDERA EMPHASIZED HIS DESIRE TO WORK WITH THE UNITED STATES IN A COOPERATIVE SPIRIT TO RESOLVE PROBLEMS IN TRADE; HE SAID HE HAS GREAT RESPECT FOR VENAMCHAM'S OBJECTIVE TO WORK IN THE SERVICE OF U.S.-VENEZUELAN COMMERCIAL RELATIONS; AND HE CALLED THE PROCESS OF GLOBALIZATION THROUGH FREE TRADE ARRANGEMENTS AN INEVITABLE PROCESS, AND SAID THAT VENEZUELA MUST STUDY THESE DEVELOPMENTS IN ORDER TO DECIDE ITS INTERESTS IN PARTICIPATING. THE TONE OF THE REMARK WAS POSITIVE AND MOST INTERPRETED IT AS AN INDICATION THAT VENEZUELA WILL WORK FOR HEMISPHERIC FREE TRADE UNDER CALDERA, ALTHOUGH HIS ACTUAL PHRASING WAS NON-COMMITAL. ALSO OF NOTE,

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93 CARACAS 11176

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CALDERA SAID THE U.S. GASOLINE MARKET IS CRITICALLY IMPORTANT FOR VENEZUELA, BUT DID NOT ADDRESS THE SPECIFIC PROBLEM OF REFORMULATED GASOLINE. VENAMCHAM MEMBERS WERE VERY PLEASED BY THE FRIENDLY SPIRIT OF CALDERA'S REMARKS, PARTICULARLY IN VIEW OF THE FACT THAT MOST MEMBERS OPENLY FAVORED CANDIDATE ALVAREZ-PAZ, AND GIVEN THAT BUSINESS VIEWS CALDERA'S

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PAGE 03 CARACA 11176 01 OF 03 171823Z
 COMING ADMINISTRATION AS POTENTIALLY A LOT LESS PRO-BUSINESS THAN RECENT GOVERNMENTS. END SUMMARY.
 3. VENAMCHAM ELECTED OFFICERS AT THE GENERAL MEETING. A COMPLETE LIST OF OFFICERS WILL BE SUBMITTED BY SEPTEL FOR INPUT INTO THE NATIONAL TRADE DATA BANK.
 4. IN HIS REMARKS, AMBASSADOR DAVIDOW PUBLICLY REITERATED PRESIDENT CLINTON'S CONGRATULATIONS TO CALDERA ON HIS ELECTION AND APPLAUDED THE PEOPLE OF VENEZUELA FOR THEIR DEDICATION TO DEMOCRACY. HE EMPHASIZED THAT HE LOOK FORWARD TO WORKING WITH THE CALDERA GOVERNMENT ON AREAS OF COMMON INTEREST AND THAT COMMERCIAL RELATIONS ARE HIGH AMONG THE AREAS FOR COOPERATION. HE APPLAUDED THE VENAMCHAM'S PAST EFFORTS IN SUPPORT OF GOVERNMENT-TO-GOVERNMENT EFFORTS TO ADVANCE THE ECONOMIC AGENDA. HE NOTED THAT CALDERA COMES TO POWER SIMULTANEOUSLY WITH THE ENTRY INTO FORCE OF THE NAFTA AND THE URUGUAY ROUND OF GATT, AND NOTED THAT CALDERA'S GOVERNMENT WILL DETERMINE VENEZUELA'S PARTICIPATION IN HEMISPHERIC AND GLOBAL TRADE AGREEMENTS. HE NOTED THAT AS COUNTRIES DEVELOP VAST TRADE, INEVITABLY ISSUES ARISE OVER SPECIFIC GOODS IN TRADE. HE SAID GOVERNMENTS MUST RECOGNIZE THAT THIS IS PART OF THE PROCESS AND THAT WORKING TOGETHER THESE PROBLEMS CAN BE RESOLVED. THE AMBASSADOR INVITED PRESIDENT CALDERA TO RELY ON VENAMCHAM AS AN ALLY AND SOURCE OF KNOWLEDGE ON TRADE POLICY. THE AMBASSADOR STATED OUR HOPE TO GET TO WORK EARLY ON THE FOUR BILATERAL ACCORDS (IPR, BIT, DOUBLE-TAXATION, AND SUBSIDIES) IN THE HOPE OF

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PAGE 04 CARACA 11176 01 OF 03 171923Z
 COMPLETING THEM WITH THE NEW GOVERNMENT.
 5. IN HIS REMARKS, VENAMCHAM PRESIDENT STEPHEN FELLOWS NOTED THAT NOW THAT THE VENEZUELAN ELECTION IS OVER, VENAMCHAM HOPES FOR POLITICAL STABILITY AND A PROGRAM OF NEW ADVANCES IN ECONOMIC MODERNIZATION. HE NOTED THE CHAMBER'S CONCERN OVER THE REFORMULATED GASOLINE ISSUE AND PLEDGED TO SUPPORT GOV EFFORTS IN ATTEMPTING TO MAINTAIN THE U.S. MARKET FOR THIS CRITICAL VENEZUELAN PRODUCT. HE REFERRED TO THE NAFTA AND SAID

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PAGE 2

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93 CARACAS 11176

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THAT VENEZUELA SHOULD HAVE THE AIM OF JOINING IN AN
EXPANDED HEMISPHERIC TRADE AGREEMENT. HIS REMARKS
ALSO INCLUDED COMMENTS AND ADVICE TO CALOERA ON THE
IMPORTANCE OF ECONOMIC STABILITY AND ON THE IMPORTANCE
OF FOREIGN INVESTMENT IN THE COUNTRY.

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PAGE 01 CARACA 11176 02 OF 03 171824Z

ACTION ARA-01

INFO	LOG-00	ACDA-17	AID-01	CEA-01	CIAE-00	CTME-00	C-01
	DASY-02	0002-00	00EE-00	EB-01	EXIM-06	E-01	FRB-03
	HA-09	H-01	TEDE-00	INR-00	ITC-01	JUSE-00	L-03
	ADS-00	NSAE-00	NSCE-00	DMB-01	OPIC-08	PA-01	PM-02
	PRS-01	P-01	SNP-00	SP-00	SS-00	STR-16	T-00
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R 171823Z DEC 93

FM AMEMBASSY CARACAS

TO SECSTATE WASHDC 4893

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USDOC WASHDC

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USDOC FOR 3134/DID/WH/JVLAVIANOS/RTAFT/JRAUNER

USDOC FOR 4331/IEP/WH/DJA/AND/LZEIGER

STATE PLEASE PASS TO OPIC/A.ROSEN

STATE PLEASE PASS TO EXIMBANK/R.RODRIGUEZ

TREASURY FOR DASIA/INTL-ELLEN WYATT

E.O. 12396: 4/A

TAGS: BCXP, ECON, ETPD, PGOV, VE

SUBJECT: PRESIDENT-ELECT CALDERA SPEAKS AT VENAMCHAM GENERAL MEETING--CAUTIOUSLY HINTS AT INTEREST IN WESTERN MEMBERSHIP WORKING TO GET THE VENAMCHAM FOR ITS EFFORTS TO WORK IN SERVICE OF U.S.-VEZUELAN RELATIONS." "THE AIM IS TO

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PAGE 02 CARACA 11176 02 OF 03 171824Z

ACHIEVE THE BEST POSSIBLE RELATIONSHIP OF FRIENDSHIP AND COOPERATION BETWEEN THE UNITED STATES AND

VENEZUELA. VENEZUELA IMPORTS MORE FROM THE UNITED

STATES THAN FROM ANY OTHER NATION IN THE WORLD AND ITS

EXPORTS ARE MAINLY TARGETED AT THE U.S. MARKET." HE

DID NOT SPECIFICALLY MENTION THE REFORMULATED GASOLINE

ISSUE, THOUGH FELLOW'S REMARKS GAVE HIM THE

OPPORTUNITY TO DO SO, IF HE HAD WISHED. INSTEAD, HE

PICKED UP ON THE AMBASSADOR'S COMMENTS THAT THERE ARE

NO COMMERCIAL DISPUTES THAT THE TWO COUNTRIES CANNOT

OVERCOME BY WORKING TOGETHER.

9. ON BROADER RELATIONS, HE SAID "THE UNITED STATES

REPRESENTS A GUARANTEE FOR ALL LATIN AMERICAN PEOPLE

WHO DECIDE THEIR AFFAIRS THEMSELVES THROUGH A

DEMOCRATIC SYSTEM."

10. COMMENT: VENAMCHAM MEMBERS GENERALLY FOUND THE

POSITIVE AND FRIENDLY TONE OF PRESIDENT-ELECT

CALDERA'S REMARKS TO BE AN ENCOURAGING SIGN. MANY

BUSINESS PEOPLE HAVE COMMENTED SINCE THE ELECTION THAT

CALDERA'S GOVERNMENT WOULD LIKELY MAKE DOING BUSINESS

IN VENEZUELA SOMEWHAT MORE DIFFICULT. CHIEF AMONG

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CONCERNS ARE A TENDENCY TO ENDORSE PROTECTIONIST IDEAS ON THE CAMPAIGN TRAIL, SUGGESTIONS THAT EXCHANGE CONTROLS SHOULD NOT BE RULED OUT, AND COMMENTS BY CALDERA ON THE NEED TO MODERATE THE COUNTRY'S "ALL IN FAVOR" ATTITUDE ON PRIVATIZATION. BUSINESS GENERALLY HAS INDICATED SKEPTICISM AND RESERVED JUDGMENT, WAITING FOR CALDERA TO BEGIN TO OUTLINE POLICY, WHICH HE HAS YET TO DO IN ANY DETAIL. WHILE HE CONTINUED

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PAGE 03 CARACA 11176 02 OF 03 171824Z
THIS TACTIC OF SPEAKING ONLY IN GENERALIZATIONS AT THE VENAMCHAM ADDRESS, HIS TONE WAS REMARKABLY CONCILIATORY, ESPECIALLY IN CONTRAST TO HIS CAMPAIGN ADDRESS TO THE GROUP IN SEPTEMBER, WHERE HE MADE SEVERAL REMARKS THAT HINTED THAT BUSINESS NEEDED TO BE TAXED MORE TO SUPPORT THE COUNTRY'S POOR. EMBASSY VIEWS CALDERA'S DECISION TO PARTICIPATE IN THE VENAMCHAM MEETING, SO SOON AFTER HIS ELECTION, AS A POSITIVE SIGNAL OF THE IMPORTANCE THE PRESIDENT-ELECT ATTACHES TO U.S. VENEZUELAN BILATERAL RELATIONS, AND PARTICULARLY TO HIS INTEREST IN NOW ESTABLISHING GOOD WORKING RELATIONS WITH VENEZUELAN BUSINESS ON INTERNATIONAL TRADE ISSUES. ALTHOUGH THE COMMENT ON A WESTERN HEMISPHERE FREE TRADE AGREEMENT WAS NON

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PAGE 01 CARACA 11176 03 OF 03 171825Z
 ACTION ARA-01
 INFO LOG-00 ACOA-17 AID-01 CEA-01 CIAE-00 CTME-00 C-01
 OAS-00 OODE-00 DOEE-00 EB-01 EXIM-06 E-01 FRB-03
 HA-09 H-01 TEDE-00 INR-00 ITC-01 JUSE-00 L-03
 ADS-00 NSAF-00 NSCE-00 OMB-01 OPIC-08 PA-01 PM-02
 PRS-01 P-01 SNP-00 SP-00 SS-00 STR-16 T-00
 USIF-0J /076W

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R 171823Z DEC 93
 FM AMEMBASSY CARACAS
 TO SECSTATE WASHDC 4894
 DEPTTRES WASHDC
 USOOC WASHDC

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USOOC FOR 3134/OID/WH/JVLAVIANDS/RTAFT/JRAUNER

USOOC FOR 4331/IEP/WH/OSA/ANO/LZEIGER

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TREASURY FOR OASIA/INTL-ELLEN WYATT

E.n. 12356: N/A

TAGS: BEXP, ECON, ETRD, PGDV, VE

SUBJECT: PRESIDENT-ELECT CALDERA SPEAKS AT VENAMCHAM

GENERAL MEETING--CAUTIOUSLY HINTS AT INTEREST IN WESTERN

HEMISPHERE FREE TRADE AGREEMENT

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PAGE 02 CARACA 11176 03 OF 03 171825Z
 COMMITTAL. CALDERA CLEARLY SOUGHT TO IMPLY THAT
 VENEZUELA MUST FIND ITS WAY TO PARTICIPATE, AND THIS
 WAS HIS STRONGEST SUGGESTION TO DATE. THAT HIS
 ADMINISTRATION WILL PURSUE THE ISSUE. END COMMENT.
 DAVIDOW

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ROUTINE

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INCOMING

DEPARTMENT OF STATE
ARA/NEA REARCSPAGE 01 CARACA 11196 201632Z 020472 50471301
INFO: DAND (U) VE (U) EAC (U) RJ (U) PDS (U) RZC (U) ARA (U)
PPC (U) DECP (U) ECP (U) CAS (U) PPA (U)CARACA 11196 201632Z 020472 50471301
ENERGY SECRETARY O'LEARY AND REFERRED TO A "STATE
DEPARTMENT COMMUNIQUE" STATING THAT NEGOTIATIONS WITH
VENEZUELA WOULD CONTINUE AND THAT IT WOULD BE A MISTAKE
TO ASSUME THAT THE EPA DECISION WOULD REDUCE THE AMOUNT
OF VENEZUELAN GASOLINE ENTERING THE U.S.

ACTION EO-00

INFO LOC-00 ACDA-17 BID-00 ARA-00 CEA-00 CER-00 CIAL-00
CINE-00 C-01 CASY-00 DINT-00 DOME-00 EXIN-00 E-01
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TAGS: (P)E1, (EM)G, (TR)D, (PRE)1, (VE)
SUBJECT: REFORMULATED GASOLINE: PRESS COVERAGE TURNS
MORE CRITICAL

REF: CARACAS 11113 AND PREVIOUS

1. SUMMARY. VENEZUELAN PRESS COVERAGE OF THE
REFORMULATED GASOLINE ISSUE INTENSIFIED OVER THE WEEKEND
AND BECAME MORE CRITICAL OF THE U.S. DECISION. IT WAS
ANNOUNCED THAT VENEZUELA HAD SUBMITTED A PROTEST TO THE
GATT. NEVERTHELESS, MOST STORIES CONTINUED TO POINT OUT
THAT A NEGOTIATED SOLUTION WAS POSSIBLE BEFORE 1995.
GOV OFFICIALS ARE APPARENTLY KEEPING A LOW PROFILE ON
THE ISSUE. END SUMMARY.

2. THE EPA'S DECISION ON REFORMULATED GASOLINE RECEIVED
WIDER AND MORE CRITICAL COVERAGE FROM THE VENEZUELAN
PRESS OVER THE WEEKEND. MOST STORIES ACCUSED THE U.S.
OF ABANDONING FREE TRADE PRINCIPLES AND SURRENDERING TO
PROTECTIONIST PRESSURES AT HOME FROM SUND OIL AND
OTHERS. SEVERAL REPUTABLE PAPERS EVEN SUGGESTED THE
CLINTON ADMINISTRATION HAD AGREED TO DISCRIMINATE
AGAINST VENEZUELAN GASOLINE AS PART OF A DEAL TO OBTAIN
CONGRESSIONAL SUPPORT FOR THE NAFTA. ONE CARACAS DAILY
CLASSIFIED THE U.S. ACTION AS A STRANGE WAY OF
SUPPORTING VENEZUELAN DEMOCRACY. IN ADDITION, FOREIGN
TRADE MINISTER MIGUEL RODRIGUEZ ADVISOR TO THE PRESS
THAT VENEZUELA HAD PRESENTED A DECLARATION TO THE GATT
IN GENEVA ON DECEMBER 17 FORMALLY PROTESTING THE EPA'S
DECISION.

3. DESPITE THE ATTACKS, THE PRESS DID REPORT AGAIN THAT
TALKS BETWEEN VENEZUELA AND THE O.S. WOULD CONTINUE AND
THAT A SOLUTION WAS POSSIBLE BEFORE THE NEW REGULATIONS
WECOME EFFECTIVE IN 1995. VENEZUELAN DAILY NEWS/VEPASA
CITED RECENT FAVORABLE REMARKS MADE ABOUT VENEZUELA BY

4. MOREOVER, VENEZUELAN ADMINISTRATION OFFICIALS KEPT A
LOW PROFILE OTHER THAN MIGUEL RODRIGUEZ REMARKS ON
THE GATT. THERE WERE NO NEW PUBLIC COMMENTS ON THE ISSUE
BY ADMINISTRATION OFFICIALS. JULIO SOSA, A KEY ADVISER
TO PRESIDENT-ELECT CALDERON, DID ADDRESS THE PROBLEM
REMARKING THAT THE QUALITY OF VENEZUELAN REFORMULATED
GASOLINE WOULD BE SUPERIOR TO THE O.S. AVERAGE IN 1995,
AND THAT THE GOV WOULD PURSUE ITS CASE IN THE GATT.
HOWEVER, SOSA CONCLUDED BY WELCOMING THE U.S. OFFER TO
CONTINUE A DIALOGUE ON THE ISSUE AND PROFFERING THAT A
SATISFACTORY SOLUTION WOULD BE POSSIBLE. SENATOR EDGAR
VALLEE VALLE, PRESIDENT OF THE SENATE'S PERMANENT
COMMISSION ON ENERGY AND MINES, WAS ALSO QUOTED,
DESCRIBING THE DECISION AS "UNJUST AND IRRITATING," BUT
HE TOO WAS HOPEFUL THAT FURTHER TALKS WOULD LEAD TO A
REPEAL OF THE EPA'S RULING.

5. COMMENT: AS THE VENEZUELAN PRESS HAS HAD MORE TIME
TO MULL OVER THE U.S. DECISION, ITS ATTACKS AGAINST THE
U.S. HAVE INTENSIFIED. NEVERTHELESS, THE TIME CONTINUES

TO BE TEMPERED FOR THE MOST PART BY THE POSSIBILITY OF A
NEGOTIATED SOLUTION. GOV OFFICIALS SEEM TO HAVE
DECIDED, AT LEAST FOR NOW, TO REFRAIN FROM MAKING
INFLAMMATORY REMARKS ON THE ISSUE.

DAVIDSON

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E O 12356: A/A
SUBJECT: MEDIA REACTION: ENERGY/ENVIRONMENTAL
POLICY: EPA BAN ON VENEZUELAN GASOLINE

1. THE EPA BAN ON VENEZUELAN GASOLINE CONTINUED
TO GENERATE HEAVY PRESS COVERAGE AND EDITORIAL
COMMENT THROUGH THE WEEKEND. HEADLINE TREATMENT
AND SUMMARIES FOLLOW.

2. "EL UNIVERSAL" (CONSERVATIVE LEADING DAILY,
CIRC. 160,000) OF SATURDAY, 12/18/93, WAS AS
LEAD FRONT PAGE STORY WITH HEADLINE: "U.S.
RESTRICTION ON VENEZUELAN GASOLINE IS

POLITICAL." FRONT-PAGE STORY DEALS WITH
VENEZUELA'S PLANS TO APPEAL DECISION TO GATT,
FOLLOWED BY LENGTHY ARTICLE ON FRONT PAGE OF
SECOND SECTION BY THE NEWSPAPER'S WASHINGTON
CORRESPONDENT EV BAUMANN. BAUMANN'S STORY QUOTES
MARTY BICKOLS, ASSISTANT ADMINISTRATOR OF THE EPA
FOR AIR QUALITY, AS SAYING THAT THE DECISION WAS
NOT AIMED AT DISCRIMINATING AGAINST FOREIGN OIL
COMPANIES AND THAT VENEZUELA HAD THE RIGHT TO
APPEAL THE DECISION. THE STORY QUOTES THE
VENEZUELAN AMBASSY AS SAYING THAT THE REAL
REASON FOR THE EPA DECISION WAS THE STRONG
POLITICAL PRESSURE BROUGHT TO BEAR ON THE
ADMINISTRATION BY SUN OIL OF PHILADELPHIA, AND
THAT IT IS SUSPICIOUS THAT A CONGRESSMAN FROM
THAT CITY CHANGED HIS VOTE ON THE NAFTA ACCORD.
3. "EL NACIONAL" (LIBERAL LEADING DAILY, CIRC.
130,000) OF SATURDAY, 12/18/93, HAS ARTICLE
WITH HEADLINE: "VENEZUELA HAS BEGUN APPEAL IN
GATT AGAINST GASOLINE DECISION." AND A SECOND
ARTICLE WHICH QUOTES MINISTER OF ENERGY ALIBIO
PARRA, WITH HEADLINE: "UNJUST DECISION OF THE
EPA."

4. "ZAMI" (SENSATIONALIST DAILY, CIRC. 160,000)
OF SATURDAY, 12/18/93, WAS AS LEAD FRONT-PAGE
WITH HEADLINE: "VENEZUELA MUST OPEN OILER OIL
MARKETS." THE SAME PAPER ON MONDAY, 12/20/93,
HAS AN EDITORIAL ON THE SUBJECT: "UNDESIRABLE
POSITION OF THE U.S. TOWARDS VENEZUELA," WHICH
DENOUNCES THE DECISION: "IN WASHINGTON THEY DO

NOT TREAT US AS FRIENDS OR COLLABORATORS, BUT AS
VASSALS AND ENEMIES. IN ORDER, TO HAVE
FRIENDS LIKE THE UNITED STATES, IT IS BETTER TO

5. "ULTIMAS NOTICIAS" (SENSATIONALIST TABLOID
DAILY, CIRC. 200,000) OF SATURDAY, 12/18/93,
HAS SEVERAL STORIES, ALL OF WHICH CONDEMN THE
ACTION. ONE QUOTES FINANCE MINISTER CARLOS
RAFAEL SILVA AS SAYING THAT THE ENVIRONMENTAL
QUESTION IS MERELY A PRETEXT FOR DISCRIMINATING
AGAINST VENEZUELAN GASOLINE. THE SAME NEWSPAPER
ON SUNDAY, 12/19/93, HAS FRONT PAGE HEADLINE:
"UNACCEPTABLE THE VEILED PROTECTIONISM THAT THE
U.S. IS TRYING TO IMPOSE." STORY QUOTES
ECONOMIST JOSE MIGUEL UGACIOU TO THE EFFECT
THAT THE MEASURE IS SIMPLY A VEILED FORM OF
PROTECTIONISM. MONDAY'S EDITION OF THE SAME
NEWSPAPER CONTINUES WITH THE STORY AS LEAD FRONT
PAGE STORY, WITH HEADLINE WHICH QUOTES FOREIGN
MINISTER FERRANDO OCHOA ARTICLE: "WE'RE SERIOUS
AND DELICATE THE FACT THAT THE U.S. IS IMPOSING
PROTECTIONIST MEASURES AGAINST VENEZUELA."

6. "EL DIARIO DE CARACAS" (CENTRIST UPSCALE,
CIRC. 50,000) OF SUNDAY, 12/19/93, HAS AN
EDITORIAL: "A STRANGE WAY OF SUPPORTING US." THE
EDITORIAL BEGINS WITH THE QUESTION: "DOES THE
GOVERNMENT OF THE UNITED STATES SUPPORT
BUREAUCRACY OR POLICE? !!!" AND CONTINUES: "THIS
IS A PROTECTIONIST MEASURE. ACCORDING TO WHAT IS

REPORTED IN THE PRESS, IT IS ALL DUE TO SUN OIL
COMPANY, THE AMERICAN PETROLEUM INSTITUTE AND
THE NATIONAL PETROLEUM REFINERS ASSOCIATION
WORKING AGAINST THE EXPORT OF VENEZUELAN
GASOLINE." THE SAME NEWSPAPER ON SATURDAY,
12/18/93, WAS STORY WITH HEADLINE: "NO LEGAL

PRETEXT FOR BAN ON GASOLINE SALES TO THE U.S."
THE STORY QUOTES EDGAR VALLE VALLE, HEAD OF THE
SERATE COMMITTEE ON ENERGY AND MINES, AS SAYING

THAT THE DECISION IS "CAPRICIOUS," UNJUST, AND
VIOLATES THE GATT RIGHTS FOR EQUAL TREATMENT OF
NATIONAL AND IMPORTED PRODUCTS. "ECONOMIA BOY"
LEADING ECONOMIC DAILY, CIRC. 11,000) OF
SATURDAY, 12/18/93, ALSO CARRIES STORY BASED ON
STATEMENTS BY SENATOR VALLE.

7. "EL PENON" (SENSATIONALIST EVENING DAILY,
CIRC. 150,000) OF SATURDAY, 12/18/93, HAS LEAD
FRONT-PAGE HEADLINE: "WAR AGAINST PPMVA BY U.S.
OIL COMPANIES BROUGHT ABOUT DISCRIMINATION
AGAINST VENEZUELAN GASOLINE."

8. "EL NUEVO PAIS" (LEFT OF CENTER, CIRC.
10,000) CARRIES ARTICLE ON MONDAY, 12/20/93,
WITH HEADLINE: "VENEZUELAN OIL EXPORTS MAY FALL
BY 50,000 BARRELS TO U.S." STORY QUOTES
ALEXANDER GUERRERO, ECONOMIST AND OIL EXPERT, ON
THE EFFECTS OF THE EPA BAN.

9. "THE DAILY JOURNAL" (ENGLISH LANGUAGE DAILY,
CIRC. 20,000) OF SATURDAY, 12/18/93, HAS STORY
WITH HEADLINE: "NATION'S TOP OILMEN DISCUS U.S.
GASOLINE BAN." WELCH, ACTING

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United States Department of State

Washington, D. C. 20520

INFORMATION MEMORANDUM

S/S

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93 DEC 21 7:30 AM

TO: E - Mrs. Spero

FROM: ARA - Alexander F Watson *ARW*

SUBJECT: Update on Venezuela and the Reformulated Gasoline Issue

On December 14 I spoke to Ambassador Davidow in Caracas and briefed him on the results of the interagency discussion on Venezuela and the EPA's reformulated gasoline program. I told him we would be providing him with an EPA approved statement to use with GOV officials and the Venezuelan press.

On December 15, I called Venezuelan Minister of Energy Parra and gave him with a verbal summary of the EPA's intentions regarding Venezuela. My conversation followed verbal talking points provided by Dick Wilson, Director of EPA's Office of Air Quality and Radiation (Tab 1). I provided the same information to Ambassador Davidow, who briefed President-Elect Caldera's Transition Team Head, Dr. Julio Sosa Rodriguez, and PDVSA President Gustavo Roosen.

On December 16, the EPA issued a press statement and conducted a press briefing on the reformulated gasoline rule issued on December 15. The press statement did not mention Venezuela or the foreign refiners issue (Tab 2). The press briefing, conducted by EPA Assistant Administrator for Air and Radiation Mary Nichols, included two questions that related to Venezuela: one by an unidentified Venezuelan journalist and one by a Platt's Oilgram News correspondent. Nichols' answers included and expanded on the talking points provided by Wilson.

On December 20, at ARA's request, the EPA issued a press statement on the use of individual baselines by foreign refiners (Tab 3). This statement puts in writing the talking points provided by Wilson and has been forwarded to Ambassador Davidow for use with GOV officials and the Venezuelan Press.

GOV officials have been moderate, the tone of their remarks tempered by the possibility of a negotiated solution. Press coverage was initially moderate, but became more negative over the weekend. You may also wish to review the attached Platt's Oilgram News article of December 17, which is the only major U.S. news item we have seen on this subject to date (Tab 4).

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Tab 1 - EPA Talking Points of December 15 plus Q&A's From
EPA Press Briefing of December 16

Tab 2 - EPA Press Statement of December 15

Tab 3 - EPA Press Statement of December 17

Tab 4 - Platt's Oilgram News article of December 17

Talking Points Provided by EPA Director Dick Wilson
to A/S Watson on 12/15/93

1. EPA is putting out a final rule that is unchanged from the one the EPA was working on before.
2. EPA has had long discussions with the Venezuelans who put forth interesting proposals to deal with the environmental issues, but, unfortunately, we ran out of time.
3. However, the door is still open to further discussions if the Venezuelans are still interested.

Press Briefing Regarding Venezuela
by EPA Assistant Administrator Mary Nichols on 12/16/93

- Q. Isn't this a protectionist measure?
(question by unidentified Venezuelan journalist)
- A. No, what we were announcing was not the final say-so on Venezuelan fuel. The program does not go into effect until January 1, 1995. State and EPA will be talking to the GOV to see if there is a way to resolve the situation.
(rough paraphrase by EPA Public Liaison Officer John Kasper)
- Q. To what end will the EPA and the Venezuelans hold these meetings?
(question by Platt's Oilgram Reporter Gerald Karey)
- A. The EPA was approached by Venezuela (during the reformulated gasoline rulemaking process) with some ideas and proposals for different ways of treating foreign refiners. We will be looking at those proposals in the future. We expect to continue conversations with the government and the Venezuelan oil industry.
(extract from Platt's Oilgram News of 12/17/93)

12/17/93

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PLATT'S
Oilgram News**Venezuelans Angry, but Talks to Go On
Say Reformulated Gas Rule Discriminates**

Washington—The Environmental Protection Agency expects to continue discussions with Venezuelan officials on how to deal with foreign gasoline under the reformulated gasoline (RFG) program, but without committing to a specific goal or outcome.

Meanwhile, Venezuelans carry ambassador Alvaro Pizarro indicated that Venezuelans may protest if EPA's failure to grant special consideration under the RFG rules, and it may use the recently signed to General Agreement on Tariffs and Trade (GATT) as a vehicle to carry out its bid.

Venezuelan officials consider provisions of the RFG rule establishing separate baselines for foreign and U.S. gasoline to be discriminatory (EN 12/16). In a prepared statement, Pizarro said Dec. 16 that the decision by EPA is "discriminatory...and contrary to the policies of the U.S. as they relate to free commerce." The statement said Venezuela intends to initiate action under GATT to protest the regulations, and to ask the EPA to revoke the discriminatory aspects of the regulations.

Ironically, the statement goes on to say that Venezuela's gasoline "complies with the new specifications, and that (its gasoline) will have emissions levels equal to or less than U.S. gasoline."

"The EPA was approached by Venezuela (during the RFG rulemaking) with some ideas and proposals for different ways of treating foreign reform," Mary Nichols, assistant administrator for air and radiation, told a press briefing. "We will be looking at those proposals in the future... We expect to continue conversations with the government and Venezuelan oil industry."

Asked the point of the discussions, Nichols said the Venezuelans can provide additional information, present proposals, or petition the agency to reconsider the rulemaking. "It is not our intention to dis-

criminate," she said.

A source close to Petroleum de Venezuela (Pdvsa) said he thought it unlikely EPA would revisit the RFG rulemaking, given the controversy surrounding the issue. EPA's willingness to continue discussions with Venezuelans may just be "diplomatic fluff," he said.

The reformulated gasoline rules revealed formally by EPA Dec. 16 decreed that gasoline manufactured by foreign refineries will not be treated in the same manner as gasoline by domestic refineries (EN 12/16). The regulations will allow domestic refineries to use their own 1990 baseline to comply with the production

(Continued on p. 5)

Two Bidders, 3 Bids for Sakhalin-Three Project

New York—Only three companies in two groups submitted formal bids for one of the four blocks on offer in the Sakhalin 3 tender round.

Enron submitted bids on two of the blocks offshore Russia's Sakhalin Is., while a joint venture of Mobil and Texaco submitted a single bid on another of the four blocks on offer. Edward Gendelman, president of WaveTech Geophysical Inc., said in a Dec. 16 phone interview from Moscow. The Denver-based WaveTech is technical advisor to the Sakhalin administration and the Russian government on the tender.

(Continued on p. 4)

**Turkey Wants to Get Iraqi Crude In Line
Talking with U.S. on Roughly 2-Million Bbl**

Ankara—The U.S. and Turkey are discussing a means that would allow Ankara to acquire and sell the Iraqi crude that is sitting in the Turkish portion of the Kizilirmak-Mediterreanean pipeline.

The pipeline has been lifted since Iraq's invasion of Kuwait three years ago. The crude in the pipeline system was previously estimated to be as much as 2-million bbl.

**UN and Iraq Talk Again
On \$1.5-Billion Sale of Oil**

United Nations—The UN and Iraq have reopened discussions on the possibility of a one-time \$1.5-billion sale of Iraqi oil, according to a spokesman for Secretary General Boutros Boutros Ghali.

He said the UN and Iraq are negotiating Iraq's conditions for agreeing to the sale under UN auspices. Letters and phone calls have been exchanged between Baghdad and the UN, he told OILGRAM NEWS, but he declined to identify the individual participants.

Iraqi officials were not available for comment, but Iraqi Ambassador to the UN Nizar Hamdani on Dec. 2 insisted Baghdad would not consider the one-time sale, and it was unclear to what extent the UN-Iraq negotiations were progressing.

Proceeds from any sale under 705 and 712 would be delivered into a UN escrow account to pay the cost of humanitarian operations in Iraq.

The talks resumed during a recent visit to Ankara by U.S. Asst. Secretary of State Stephen Oxman. Turkish diplomats have said that Oxman presented their government with a plan allowing Turkish access to the pipeline's crude.

The diplomats said the U.S. plan stipulates that 30% of the value of Iraq's share of the crude in the idle line would have to go towards a special Gulf fund to compensate countries in the area whose economies were hurt as result of their participation in the U.S.-led coalition forces against Iraq. The balance would be transferred to the UN, and Iraq would be able to use these funds to purchase food and medical supplies from Turkey.

The plan bears a striking resemblance to the UN's one-time, \$1.5-billion oil sales offer that Iraq decided to put on the back burner last August. Iraq is now seeking a complete lifting of the UN oil embargo.

(According to U.S. State Dept. officials in Washington, the talks with Turkey are at an early stage. "We don't think

(Continued on p. 4)

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FERC Hears the Battles Over Mojave Jurisdiction

Washington—Federal Energy Regulatory Commission and the California Public Utilities Commission locked horns Dec. 16, as FERC questioned claims by CPUC and Pacific Gas & Electric that FERC should not have authority to approve a gas pipeline expansion in California proposed by Mojave Pipeline Co.

At a conference Dec. 16, CPUC and PG&E argued that while Mojave was an interstate pipeline under FERC's jurisdiction, the pipeline expansion was strictly within California and the company would be operating like a local distribution company. Therefore, Mojave's expansion should be subject to approval by the state commission, not FERC, CPUC president David Feister said.

Bill White, president of El Paso Natural Gas Co., the parent company of Mojave, said if FERC relinquished its authority in this case, it would kill the expansion plan. Mojave and El Paso officials said the expansion would offer much needed competition to Pacific Gas & Electric's gas distribution system in northern California, a goal which FERC has sought to promote. "If FERC abdicates its jurisdiction, the project dies. (FERC's) policies will be deflated and competition will lose," White said.

Mojave filed an application to FERC in March to build a 473,000 Mcfd pipeline expansion from southern California through central and northern California, aiming to bring the line on by April 1995.

Because of the dispute over regulatory jurisdiction, Mojave has advised the project start-up date to January 1996, president Mike Holland said.

PG&E's main argument was that while it wanted to compete with Mojave, it would not be competing on level ground with Mojave if Mojave was not subject to CPUC regulation like PG&E. "It's not fair to PG&E to compete with a federally-regulated local distribution company," said PG&E senior vice president Jack Justice-Saak.

Cherry-Picking Customers

However, Stark said that Mojave was taking customers away from PG&E, leaving it with smaller bases over which to spread stranded costs. "The Mojave bypass is designed to cherry-pick large customers throughout the PG&E system," he said. But commissioners noted that Mojave said 65% of its customers were looking for new volumes not served by PG&E, and asked Stark why PG&E wasn't trying to capture that business if it truly wanted to compete. Stark said that in an open season making new business, the company generated no interest at all. "It was a failure," he said, which he attributed to potential customers' "regulatory arbitrage" between CPUC and FERC.

Venezuela Protests Reformulated Rule

(Continued from p. 1)

reduction requirements of the Clean Air Act.

Foreign refiners will be required to use the average baseline for all U.S. refiners. Povia, a major marketer in the Northeast, contends that requirement is discriminatory because foreign refiners will be held to a more stringent standard than some domestic refiners whose individual baselines may be "cleaner" than the U.S. average (ON 1/3). Povia wanted to use the physical makeup of its own gasoline in 1990, rather than that of the U.S. industry, as a baseline from which reductions must be made to meet reformulated regulations.

Nichols also rejected oil industry suggestions that requiring aerosol oxides (NOX) emission reductions from RFG in the year 2000, during the second phase of the RFG program, violated the regulatory negotiation—the so-called "reg-neg"—agreement that served as a basis for the rule.

"There was an explicit agreement to leave issues in Phase II out of the reg-neg process," she said. Nichols hailed the provision as the "first fuel regulation to limit emissions of NOX."

Richard Wilson, director of EPA's Office of Mobile Sources, who participated in the negotiations, said there was "no agreement on the details of the Year 2000 performance standards."

Nevertheless, the National Petroleum Refiners Assn. said the NOX reduction requirement "is a serious departure from reg-neg and was introduced without benefit of public review and comprehensive analysis, including costs and alternatives."

The association also expressed concern about a separate proposed rulemaking providing that at least 30% of the oxygen required to be in reformulated gasoline must come from renewable oxygenates.

"The politically motivated proposal (provides) ethanol incentives with a more favorable position in the market through government fiat, and (is) contrary to the

law and the reg-neg agreement."

The regulation "will impose a new set of cost burdens on all aspects of the gasoline manufacturing and distribution industry," NPRA said.

Raymond Lewis, president of the American Methanol Institute, said the proposed ethanol rule may foster delays and the cancellation of multination dollar methanol-based investments, which are economically vital to the Texas and Louisiana natural gas patch. "Unlike ethanol producers, the methanol and MTBE industries do not receive and have never sought state or federal subsidies, environmental waivers or government mandates," Nichols said the proposal will be consistent on an up-and-down basis, with a hearing scheduled for January, and a final rule issued in June 1994.

The RFG program is required in 15 U.S. cities with the highest levels of ozone, while 13 states and Washington D.C. have chosen to participate—representing in all, 33% of the U.S. gasoline market. If all the areas eligible to participate in the program do so, about 55% of the gasoline sold in the U.S. will be reformulated.

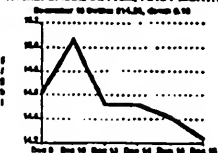
RFG is expected initially to reduce volatile organic compounds and toxic pollutants from vehicles 15% to 17% relative to 1990 baseline gasoline. By 2000, VOC reductions will be reduced 25% to 29%; toxic emissions will be reduced 20% to 22%; and NOX 5% to 7%.—Gerald Kitzky

India Cutting LPG Tariff

New Delhi—The government has decided to cut the import duty on liquefied LPG to 35% from the existing rate of 85% as of March 1, 1994, according to Petroleum & Natural Gas Ministry officials. Industry observers believe the government's decision is a result of the seasonal pressure brought to bear on the government by private LPG importers over the last few seasons following deregulation of LPG imports.

What Crude and Natural Gas Markets are Doing...

NYMEX CRUDE OIL, FIRST MONTH



NYMEX NATURAL GAS, FIRST MONTH



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E.O. 12356: N/A
TAGS: EPET, ETRD, ENRG, PREL, VE
SUBJECT: REFORMULATED GASOLINE: VENEZUELA WILL GO TO
- THE GATT

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PAGE 02 CARACA 00263 112211Z
REF: 92 CARACAS 11033 AND PREVIOUS
1. SUMMARY. THE MINISTER OF ENERGY AND MINES HAS TOLD
AMBASSADOR THE GOV WILL PRESENT A LETTER TO THE USG BY
THE END OF THIS WEEK FORMALLY REQUESTING CONSULTATIONS
UNDER THE GATT TO RESOLVE THE REFORMULATED GASOLINE
DISPUTE AND WILL ALSO RAISE THE ISSUE AT THE NEXT GATT
MEETING IN GENEVA ON JANUARY 25. PARRA SAYS HE WANTS TO
RESOLVE THE ISSUE QUICKLY, HAS ALREADY WRITTEN EPA
ADMINISTRATOR BROWNER, AND IS PREPARED TO SEND HIS
ASSISTANT TO WASHINGTON FOR TALKS. END SUMMARY.
2. MINISTER OF ENERGY AND MINES ALIRIO PARRA ADVISED
THE AMBASSADOR ON JANUARY 10 THAT THE GOV PLANS TO
PROCEED WITH ITS GATT CASE AGAINST U.S. POLICY ON
REFORMULATED GASOLINE. PARRA SAID THE GOV WILL PRESENT
THE JSG WITH A LETTER BY THE END OF THE WEEK (I.E., BY
JANUARY 14) FORMALLY REQUESTING CONSULTATIONS ON THE
ISSUE. IN ADDITION, WORKING THROUGH FOREIGN TRADE
MINISTER MIGUEL RODRIGUEZ, THE GOV WILL FORMALLY RAISE
THE ISSUE AT THE NEXT GATT MEETING IN GENEVA ON JANUARY
25. PARRA INDICATED THAT VENEZUELA FELT IT HAD NO
CHOICE BUT TO MOVE FORWARD WITH ITS GATT CASE BUT WAS
DOING SO RELUCTANTLY.
3. PARRA ALSO NOTED THAT HE HAD WRITTEN EPA
ADMINISTRATOR BROWNER IN LATE DECEMBER, ADVISING HER OF
THE GOV'S INTEREST IN PURSUING DISCUSSIONS WITH THE EPA
TO RESOLVE THE ISSUE.

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94 CARACAS 253

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PAGE 03 CARACA 00263 112211Z
4. COMMENT: CLEARLY, PARRA ASKED TO SEE THE AMBASSADOR
TO PLACE VENEZUELA'S GATT MOVE IN AN APPROPRIATE
CONTEXT. THE GOV WOULD LIKE TO RESOLVE THE ISSUE
WITHOUT FURTHER DELAY AND WITHOUT EXTENSIVE GATT
ACTIVITY. THE VENEZUELAN'S SEEM TO FEEL THAT AFTER YEARS
OF CONSULTATIONS WITH THE EPA, THE TECHNICAL ISSUES HAVE
BEEN THOROUGHLY REVIEWED. WHAT IS REQUIRED, THEY
BELIEVE, IS THE WILL TO MAKE A DECISION TO RESOLVE THE
DISPUTE. VENEZUELA IS THEREFORE LOOKING FOR A CONCRETE
PROPOSAL FROM EPA, RATHER THAN ADDITIONAL DISCUSSIONS OR
SUGGESTIONS THAT REQUIRE FURTHER STUDY. SUCH ACTIONS
ARE LIKELY TO BE PERCEIVED HERE AS DILATORY. DAVIDOW

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10/20/94 135603 PRINTER: HS

94 CARACAS 339

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UNCLASSIFIEDPAGE 01 CARACA 00389 01 OF 02 142212Z
ACTION E-01
INFO LOG-00 JASY-00 ANHR-01 TEDE-00 ADS-00 SS-00 /002W
-----1A7350 142212Z /38O 142210Z JAN 94
FM AMEMBASSY CARACAS
TO SECSTATE WASHDC IMMEDIATE 5526
INFO WHITEHOUSE WASHDC
USDOC WASHDC
DDE WASHDC
USMISSION GENEVA
UNCLAS SECTION 01 OF 02 CARACAS 00389
STATE FOR ARA, EB, AND U/S SPERO
DCE FOR PUMPHREY
USDOC FOR 3134/USFCS/DIO/D/WH/TAFT
4331/IEP/WH/CSA/BRUCE AND ZEIGER
GENEVA FOR USTR
STATE PLS PASS EPA
STATE PLS PASS USTR-AMBASSADOR KANTOR
E.O. 12356: N/A
TAGS: EPET, ETRD, GATT, ENRG, PREL, VEUNCLASSIFIED
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PAGE 02 CAPACA 00389 01 OF 02 142212Z
SUBJECT: REFORMULATED GASOLINE: GOV FORMALLY REQUESTS
CONSULTATIONS UNDER THE GATT
REF: CARACAS 263 AND PREVIOUS
1. SUMMARY. AS EXPECTED, ON JANUARY 14, THE GOV
PRESENTED CHARGE WITH A LETTER ADDRESSED TO USTR KANTOR
FORMALLY REQUESTING CONSULTATIONS UNDER THE GATT OVER THE
REFORMULATED GASOLINE ISSUE (PARA 5). THE GOV'S STRONG
PREFERENCE REMAINS, HOWEVER, TO RESOLVE THE DISPUTE
QUICKLY IN BILATERAL TALKS WITH THE USG. END SUMMARY.
2. AS EXPECTED, ON JANUARY 14, VENEZUELAN FOREIGN TRADE
MINISTER MIGUEL RODRIGUEZ MENDOZA PRESENTED CHARGE WITH A
LETTER ADDRESSED TO U.S. TRADE REPRESENTATIVE KANTOR
FORMALLY REQUESTING CONSULTATIONS UNDER THE GATT OVER THE
REFORMULATED GASOLINE ISSUE. THE MINISTER MADE IT CLEAR
THAT VENEZUELA WAS PROCEEDING WITH ITS GATT CASE
RELUCTANTLY AND THAT ITS STRONG PREFERENCE WAS TO RESOLVE
THE DISPUTE QUICKLY IN BILATERAL DISCUSSIONS WITH THE USG.
3. RODRIGUEZ CONTINUED THAT UNDER GATT RULES THE TWO
PARTIES WILL HAVE 60 DAYS FROM THE DATE OF THE LETTER
REQUESTING CONSULTATIONS TO RESOLVE THE DISPUTE. IF AT
THE END OF TIME THERE IS STILL NO SOLUTION, HE SAID THE
GOV WOULD REQUEST THAT A GATT PANEL CONVENE TO REVIEW THE
CASE. RODRIGUEZ ALSO SAID VENEZUELA WOULD FORMALLY RAISE
THE ISSUE AT THE NEXT GATT MEETING IN GENEVA ON
JANUARY 25-27. HE OFFERED TO PROVIDE EMBASSY WITH AN
ADVANCE COPY OF THE REMARKS THE VENEZUELAN REPRESENTATIVE
UNCLASSIFIED /DEPARTMENT OF STATE
S/FCIDOR/Spive Date: 10/21/94
MR Cases Only:
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PA Exemptions

PAGE 1

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94 CARACAS 339

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WILL MAKE IN GENEVA.

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PAGE 03 CARACA 00389 01 OF 02 1422122

4. SOURCES AT THE STATE OIL COMPANY, PDVSA, TELL US THE GOV HAS HIRED THE ARNOLD AND PORTER LAW FIRM TO REPRESENT IT IN ITS GATT CASE. ARNOLD AND PORTER WILL WORK WITH PDVSA'S U.S. LAW FIRM, COLLIER SHANNON, RILL, AND SCOTT, IN PREPARING THE CASE.

5. THERE FOLLOWS AN INFORMAL TRANSLATION OF MINISTER RODRIGUEZ' LETTER TO AMBASSADOR KANTOR. EMBASSY WILL POUCH ORIGINAL LETTER IN SPANISH TO ARA/AND. BEGIN UNOFFICIAL TRANSLATION:

CARACAS, JANUARY 14, 1994

THE HONORABLE
AMBASSADOR MICHAEL KANTOR
UNITED STATES TRADE REPRESENTATIVE
OFFICE OF THE U.S. TRADE REPRESENTATIVE
600 SEVENTEENTH STREET, N.W.
WASHINGTON, D.C. 20506
DEAR MR. AMBASSADOR:

THE PURPOSE OF THIS LETTER IS TO INFORM YOUR EXCELLENCY THAT THE GOVERNMENT OF THE REPUBLIC OF

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PAGE 2

10/20/94 135604 PRINTER: HG

94 CARACAS 389

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UNCLASSIFIEDPAGE 01 CARACA 00389 02 OF 02 142213Z
ACTION E-01
INFO LOG-00 DASY-00 ANHR-01 TEDE-00 ADS-00 SS-00 /002W
-----1A7B59 142213Z /38O 142210Z JAN 94
FM AMEMBASSY CARACAS
TO SECSTATE WASHDC IMMEDIATE 5527
INFO WHITEHOUSE WASHDC
USOJC WASHDC
OOE WASHDC
USMISSION GENEVA
UNCLAS SECTION 02 OF 02 CARACAS 00389
STATE FOR ARA, EB, AND U/S SPERO
OOE FOR PUMPHREY
USOJC FOR 3134/USF/S/OIO/D/WH/TAFT
4331/IEP/WH/OSA/BRUCE AND ZEIGER
GENEVA FOR USTR
STATE PLS PASS EPA
STATE PLS PASS USTR-AMBASSADOR KANTOR
E.O. 12356: N/ATAGS: EPET, ETRD, GATT, ENRG, PREL, VE
UNCLASSIFIED
UNCLASSIFIEDPAGE 02 CARACA 00389 02 OF 02 142213Z
SUBJECT: REFORMULATED GASOLINE: GOV FORMALLY REQUESTS
- CONSULTATIONS UNDER THE GATTVENEZUELA IS HEREBY REQUESTING CONSULTATIONS WITH THE
GOVERNMENT OF THE UNITED STATES OF AMERICA IN ACCORDANCE
WITH ARTICLE XXII:1 OF THE GENERAL AGREEMENT ON TARIFFS
AND TRADE.THIS REQUEST IS RELATED TO THE FINAL DECISION MADE BY
THE ENVIRONMENTAL PROTECTION AGENCY WITH RESPECT TO
"REGULATION OF FUELS AND FUEL ADDITIVES - STANDARDS FOR
REFORMULATED AND CONVENTIONAL GASOLINE," TO BE CODIFIED
UNDER NUMERAL 49 OF THE CODE OF FEDERAL REGULATIONS, PART
80, A RULING THAT INFRINGES UPON VENEZUELA'S RIGHTS, AND
VIOLATES U.S. OBLIGATIONS UNDER THE AFOREMENTIONED GENERAL
AGREEMENT.THE ENVIRONMENTAL PROTECTION AGENCY'S DECISION WILL
NEGATIVELY AFFECT THE VENEZUELAN ECONOMY AND SPECIFICALLY
WILL HAVE AN IMPACT ON VENEZUELAN GASOLINE EXPORTS TO THE
UNITED STATES, WHICH IN 1993 AMOUNTED TO US \$ 478 MILLION.THE GOVERNMENT OF VENEZUELA CONSIDERS THAT THE
ENVIRONMENTAL PROTECTION AGENCY'S REGULATION DISCRIMINATES
IN THE U.S. AGAINST IMPORTED GASOLINE, FAILS TO FULFILL
OBLIGATIONS OF THE UNITED STATES, AND VIOLATES RELEVANT
PROVISIONS OF THE GENERAL AGREEMENT, AND THEREFORE,
REQUESTS THAT CONSULTATIONS BE HELD AT THE EARLIEST
POSSIBLE DATE.SINCERELY,
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PAGE 3

94 CARACAS 389

10/20/94 135604 PRINTER: HJ

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PAGE 03 CARACA 00389 02 OF 02 142213Z
SIGNED/MIGUEL RODRIGUEZ MENDOZA
MINISTER OF STATE
END UNOFFICIAL TRANSLATION. MORLEY
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Department of State

ALUMINUM TELEGRAM
Barrow

PAGE 01 CARACA 01233 112112Z
ACTION ARA-00

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CARACA 01233 112112Z

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INFO LOC-00 ACDA-07 ACRE-00 AID-00 CEA-01 CEO-01 CIAE-00
C14-00 C-01 OAST-00 OINT-01 OODE-00 ITGC-00 EO-00
EXPE-00 EUR-00 E-01 FEO-01 RA-09 H-01 TEDE-00
IND-00 10-16 TTC-01 JOSE-00 LAB-01 L-00 ADS-00
NSAE-00 NSCE-00 NSI-01 OES-09 DIC-02 OPB-01 OPIC-01
PA-02 PR-00 PMS-01 P-01 SMP-00 SP-00 SSO-00
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SECSTATE WASHDC IMMEDIATE 0130
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USMISSION GENEVA

UNCLAS CARACAS 01233

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4321/EP-W/OSA/BRUCE AND ZEIGER

NOE FOR PUMPHREY

E.O. 12356: N/A
TAGS: EPET, ETRD, GATT, ENRG, PHEL, WE

SUBJECT: MEDIA COVERAGE FOR FRANK, FEBRUARY
11, 1994--U.S. RESTRICTIONS ON IMPORTS OF
VENEZUELAN GASOLINE

1. SUMMARY: FEBRUARY 11 EDITIONS OF LEADING CARACAS DAILIES GAVE PROMINENT COVERAGE TO FEBRUARY 10 STATEMENTS BY VENEZUELAN-AMERICAN CHAMBER OF COMMERCE (VENAMERICAN) PRESIDENT JUAN ANTONIO NICOLEIRA CONDEMNING U.S. RESTRICTIONS ON THE IMPORTATION OF VENEZUELAN REFORMULATED GASOLINE. IN HIS FIRST FORMAL PRESS CONFERENCE, THE RECENTLY INAUGURATED VENAMERICAN PRESIDENT CONDEMNED THE U.S. ENVIRONMENTAL RESTRICTIONS AS PRETEXTS FOR ANTI-COMPETITIVE MANEUVERS BY U.S. OIL COMPANIES AGAINST GOV-OWNED CITGO. NICOLEIRA DISAGREED WITH THE AMBASSADOR'S STATEMENTS DOWNPLAYING THE IMPORTANCE OF REFORMULATED GASOLINE IMPORTS IN RELATION TO VENEZUELA'S OVERALL CRUDE OIL EXPORTS AND THE VENEZUELAN ECONOMY. THE IMPACT WOULD BE SIGNIFICANT, HE SAID, BECAUSE IT WOULD BE DIFFICULT TO RECAPTURE MARKETS LOST WITH THE RESTRICTIONS. NICOLEIRA READ A LETTER HE HAD SENT TO EPA SECRETARY BROWNER, AND SAID HE HAD WRITTEN SIMILAR LETTERS TO SECRETARY OF COMMERCE RONALD BROWN, U.S. CHAMBER OF COMMERCE PRESIDENT RICHARD LESHER, AND THE AMBASSADOR, SEEKING MEETINGS TO DISCUSS THE ISSUE. END SUMMARY.

2. CONSERVATIVE, LEADING DAILY "EL UNIVERSAL"

ICIRC 108-000 RAN NICOLEIRA'S REMARKS ON THE FRONT PAGE OF ITS BUSINESS SECTION UNDER THE HEADLINE, "VENAMERICAN PRESIDENT: U.S. REGULATIONS OF VENEZUELAN GASOLINE ARE UNJUST AND DISCRIMINATORY." A SUBHEAD ENTITLED "DISCORDANCE" HIGHLIGHTED THE DISCREPANCY BETWEEN THE AMBASSADOR AND NICOLEIRA ON THE IMPORTANCE OF THE MEASURES TO THE VENEZUELAN ECONOMY.

3. LEFT-OF-CENTER "EL NUEVO PAIS" ICIRC 78-000 RAN THE STORY UNDER THE HEADLINE, "VENAMERICAN CONDEMNED U.S. FOR REJECTING VENEZUELAN GASOLINE."

4. ECONOMICS DAILY "REPORTER" ICIRC. 8-000 RAN THE STORY UNDER THE HEADLINE, "VENAMERICAN ASKS THE U.S. EQUAL TREATMENT FOR VENEZUELAN GASOLINE."

5. OPINION-ORIENTED, ELITE DAILY "EL GLOBO" ICIRC 15-000 RAN THE STORY UNDER THE HEADLINE, "VENAMERICAN WILL EMERGENCYCALLY DEFEND VENEZUELAN GASOLINE BEFORE U.S. SECRETARY OF COMMERCE."

6. THE VERSION IN BUSINESS DAILY "ECONOMIA HOY" ICIRC. 11-000 WAS ENTITLED, "IN REJECTION LETTER TO EPA VENAMERICAN SAYS U.S. SHOULD RECONSIDER MEASURES."

7. LIBERAL, LEADING DAILY "EL NACIONAL" ICIRC.

130-000 RAN THE STORY UNDER THE HEADLINE, "EPA MEASURES SEEMS TO DISPLACE CITGO--SUBSIDIARY OF PDVSA--FROM THE MARKET."
CHAPLIER

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94 CARACAS 1394

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PAGE 01 CARACA 01394 01 OF 02 182220Z

ACTION EB-01

INFO	LOG-03	ACDA-17	AID-01	ARA-01	CEA-01	CEQ-01	CIAE-00
	CTME-00	C-01	OAS-00	OINT-01	OODD-00	ITCE-00	EXME-00
	E-01	FRB-01	HA-09	IR-01	TEDE-00	INR-00	ITC-01
	L-01	AOS-00	NSAE-00	NSCE-00	OES-09	OMB-01	OPIC-01
	PA-J2	PM-01	PRS-01	SNP-00	SP-00	SS-00	STR-01
	TRSE-00	USIE-00	EPAE-00	/054W			

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FM AMEMBASSY CARACAS

TO SECSTATE WASHDC 6259

USDOC WASHDC

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UNCLAS SECTION 01 OF 02 CARACAS 01394

USDOC FOR 3134/USFCS/OIO/J/WH/TAFT

4331/IEP/WH/USA/BRUCE AND ZEIGER

DO: FOR PUMPHREY

E.O. 12356: 1/A

TAGS: EPET, ERNG, EINV, VE

SUBJECT: NEW ENERGY MINISTER TALKS TO PETROLEUM PRESS

REF: CARACAS 1343

1. SUMMARY. IN GENERAL COMMENTS TO THE PRESS ON
FEBRUARY 17 IN WHICH HE OFFERED FEW SPECIFICS, ENERGY

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PAGE 02 * CARACA 01394 01 OF 02 182220Z

MINISTER ARRIETA PROMISED TO FORMULATE A COMPREHENSIVE
ENERGY POLICY FOR THE COUNTRY WITHIN SIX MONTHS AND SAID
THE NEW PRESIDENT AND BOARD DIRECTORS OF PDVSA WOULD BE
ANNOUNCED NEXT MONTH. THE MINISTER WELCOMED DOWNSTREAM
PARTICIPATION IN THE OIL SECTOR BY PRIVATE INVESTORS BUT
SAID THE STATE SHOULD RETAIN OWNERSHIP OF PETROLEUM AND ENERGY
POLICY IN VENEZUELA AND PROMISED TO ANNOUNCE A
COMPREHENSIVE ENERGY POLICY WITHIN SIX MONTHS. HE
AVERRED THAT CURRENTLY VENEZUELA MAY OWN BUT DOES NOT
CONTROL ITS OIL; RATHER IT IS OIL THAT CONTROLS THE
NATION'S POLICIES.

3. ARRIETA SAID HE WAS LAUNCHING A REVIEW OF PDVSA'S
USD 48.5 BILLION, 1993-2002 BUSINESS PLAN AND MIGHT
ALTER ELEMENTS OF THE PLAN. THE MINISTER WELCOMED
PRIVATE SECTOR, ESPECIALLY VENEZUELAN, PARTICIPATION IN
DOWNSTREAM ACTIVITIES IN THE PETROLEUM SECTOR BUT SAID
THE STATE SHOULD RETAIN CONTROL OF OIL DEPOSITS.
ARRIETA AVOIDED A DIRECT RESPONSE TO A QUESTION ASKING
HIM ABOUT HIS VIEWS ON FOREIGN PARTICIPATION IN THE
EXPLORATION AND PRODUCTION OF LIGHT AND MEDIUM CRUDES.
INSTEAD, HE SAID SUCH PARTICIPATION WAS PROHIBITED UNDER
CURRENT LAW AND CITED THAT AS ANOTHER REASON TO ADOPT A
MACRO-ENERGY POLICY TO DEFINE THE DOWNSTREAM ACTIVITIES

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04/07/94 113554 PRINTER: HI

94 CARACAS 1394

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IN WHICH PRIVATE INVESTORS CAN PARTICIPATE.

4. ARRIETA INDICATED THE NEW PRESIDENT AND BOARD OF DIRECTORS OF PDVSA WILL BE ANNOUNCED AT OR JUST BEFORE THE NEXT PDVSA SHAREHOLDERS MEETING ON MARCH 22. HE SAID THERE WOULD BE SOME CHANGES AT THE TOP BUT PROMISED THE NEW PDVSA PRESIDENT AND MOST OF THE DIRECTORS WOULD

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PAGE 03 CARACA 01394 01 OF 02 182220Z

COME FROM WITHIN THE INDUSTRY. (COMMENT: EXCEPT FOR THE TWO PRESIDENTS NAMED BY CARLOS ANDRES PEREZ, THE HEAD OF PDVSA HAS TRADITIONALLY BEEN NAMED FROM THE RANKS OF THE INDUSTRY. END COMMENT.)

5. ON OIL PRICES, ARRIETA SAID THE VENEZUELAN EXPORT BASKET WAS CURRENTLY SELLING FOR USD 11.50 PER BARREL, WHILE THE AVERAGE PRICE SO FAR IN 1994 WAS ABOUT USD 12.00 PER BARREL. HE ADDED THE GOV EXPECTED THE PRICE OF THE VENEZUELAN BASKET TO AVERAGE USD 12.50 PER BARREL FOR ALL OF 1994. (COMMENT: ARRIETA'S PREDICTION OF A USD 12.50 PER BARREL PRICE APPEARS TO CONTRADICT HIS STATEMENT OF THE PREVIOUS DAY THAT THE GOV WAS COUNTING ON AN AVERAGE 1994 PRICE OF USD 11.50 PER BARREL FOR THE VENEZUELAN EXPORT BASKET. THE MINISTER DID NOT OFFER AN EXPLANATION FOR THE APPARENT DISCREPANCY. END COMMENT.)

6. ARRIETA WAS ALSO CRITICAL OF VENEZUELAN POLICY ON PETROCHEMICALS, SAYING FAILURE TO DEVELOP THIS SECTOR EARLIER HAD LED TO A LACK OF COMPETITIVENESS AND TO FINANCIAL LOSSES. AS HE PUT IT, "WE MUST NOW CRY LIKE WOMEN OVER WHAT WE DID NOT KNOW HOW TO DEFEND LIKE MEN." DESPITE LOW PRICES FOR MANY PETROCHEMICAL PRODUCTS, ARRIETA SEEMS TO BELIEVE THE PETROCHEMICAL SECTOR WORLDWIDE IS HEALTHY AND OFFERS GOOD PROSPECTS FOR GROWTH.

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94 CARACAS 1394

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PAGE 01 CARACA 01394 02 OF 02 182221Z

ACTION EB-01

INFO LGG-00

ACDA-17	AID-01	ARA-01	CEA-01	CEQ-01	CIAE-00
C-01	OAS-00	DINT-01	DDDE-00	ITCE-00	EXME-00
FRB-01	HA-09	H-01	TEDE-00	IHR-00	ITC-01
SOS-00	NSAE-00	NSCE-00	DES-00	GMB-01	OPIC-01
PM-01	PRS-01	SNP-00	SP-00	SS-00	STR-01
USIE-00	EPAE-00	/054H			

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R 182219Z FEB 94

FM AMEMBASSY CARACAS

TO SECSTATE WASHDC 6260

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UNCLAS SECTION 02 OF 02 CARACAS 01394

USDDC FOR 3134/USFCS/OIC/U/WH/TAFT

4331/IEP/4H/DJA/BRUCE AND ZEIGER

DGE FOR PUMPHREY

E.O. 12356: N/A

TAGS: EPET, ERNG, EINV, VE

SUBJECT: NEW ENERGY MINISTER TALKS TO PETROLEUM PRESS

7. ON THE REFORMULATED GASOLINE DISPUTE WITH THE U.S.,
 ARRIETA SAID THE NEGOTIATIONS HAD NOT FAILED AND THAT HE
 REMAINED OPTIMISTIC BOTH SIDES COULD REACH A
 SATISFACTORY SOLUTION.

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PAGE 02 CARACA 01394 02 OF 02 182221Z

8. ARRIETA ALSO CALLED FOR GREATER COOPERATION BETWEEN
 OPEC AND NON-OPEC PRODUCERS IN ORDER TO FIRM UP PRICES.

OTHER COMMENTS HE MADE REGARDING A DIALOGUE BETWEEN OIL
 PRODUCERS AND CONSUMERS WILL BE REPORTED SEPTEL. DAVIDOW

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PAGE 01 CARACA 01933 00 OF 02 1016232 028411 5004627
INFO: DAHD (01) VE (02) EAC (01) RJ (01) PDAS (01) RJC (01) PPC (01)
ECP (01) OAS (01) SEC (01)

CARACA 01933 00 OF 02 1016232 028411 5004627

CONSULTATIONS INITIATED WITH THE GOVERNMENT OF THE UNITED STATES, UNDER THE FRAMEWORK OF PROCEDURES TO RESOLVE GATT CONTROVERSIES, WITH RESPECT TO THE "REGULATIONS ON FUELS AND FUEL ADDITIVES - RULES FOR REFORMULATED AND CONVENTIONAL GASOLINE" APPROVED ON DECEMBER 15 BY YOUR COUNTRY'S ENVIRONMENTAL PROTECTION AGENCY.

ACTION EB-00
INFO LOC-00 ACDA-17 ACDE-00 AGRE-00 AID-00 ARA-00 CEA-01
CEG-01 CIAE-00 CIME-00 C-01 OAS-00 DIRT-01 DODE-00
ITCE-00 EXOE-00 E-01 FRB-01 HA-09 R-01 TEDE-00
INR-00 IO-16 ITC-01 LAB-01 L-09 ADS-00 HSAE-00
NSCE-00 OES-09 OIC-02 OMB-01 OPIC-01 PA-02 PR-00
PRS-01 SWP-00 SP-00 SS-00 STR-01 TRSE-00 USIE-00
EPAE-00 PNB-00 /873W -----766943 1016232 /30

ON THIS ISSUE, I WOULD LIKE TO INFORM YOU THAT THE GOVERNMENT OF VENEZUELA WILL REQUEST THE INCLUSION IN THE AGENDA FOR THE MEETING OF THE COUNCIL OF REPRESENTATIVES OF THE GATT, TO TAKE PLACE ON MARCH 23 OF THIS YEAR, OF THE POINT PERTAINING TO VENEZUELA'S PETITION OF FORMING A SPECIAL GROUP UNDER ARTICLE XXIII:2 OF THE GENERAL AGREEMENT, GIVEN THAT THE 60 DAY DEADLINE, THE TIME ESTABLISHED IN WHICH TO REACH A SATISFACTORY SOLUTION THROUGH CONSULTATIONS, EXPIRES ON MARCH 14.

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FM AMEMBASSY CARACAS
TO SECSTATE WASHDC IMMEDIATE 6661
INFO USDOC WASHDC
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USMISSION GENEVA

NEVERTHELESS, I WISH TO EXPRESS TO YOU THE COMPLETE WILLINGNESS OF THE GOVERNMENT OF VENEZUELA TO CONTINUE WITH THE CONSTRUCTIVE DIALOGUE ESTABLISHED WITH THE GOVERNMENT OF THE UNITED STATES, IN ORDER TO REACH A RAPID RESOLUTION TO THIS SITUATION.

UNCLAS SE CARACAS 01933
USDOC FOR 3134/USICS/DID/D/WH/TAFT
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DOE FOR PUMPKREY

SINCERELY,

/SIGNED/

ALBERTO POLETTO P.
MINISTER OF STATE

DAVIDOW

GENEVA FOR USTR
STATE PLS PASS USTR FOR AMBASSADOR KANTOR
E O. 12356: R/A
TAGS: EPEI, ENRG, ETRO, VE
SUBJECT: REFORMULATED GASOLINE - GOV TO REQUEST GATT PANEL TO CONVENE AT NEXT GATT COUNCIL MEETING

REF: CARACAS 1676 AND PREVIOUS

1. LATE MARCH 8, THE VENEZUELAN MINISTRY OF FOREIGN TRADE PROVIDED EMBASSY WITH A LETTER FROM FOREIGN TRADE MINISTER POLETTO TO AMBASSADOR KANTOR OFFICIALLY ADVISING THE USC THAT THE GOV WILL REQUEST THAT A GATT PANEL CONVENE ON THE REFORMULATED GASOLINE ISSUE. VENEZUELA PLANS TO MAKE ITS REQUEST AT THE NEXT GATT COUNCIL MEETING IN GENEVA ON MARCH 23. ADDITIONAL INFORMATION WILL FOLLOW SEPTEL.

2. FOLLOWING IS AN UNOFFICIAL TRANSLATION OF THE TEXT OF THE LETTER. ORIGINAL LETTER WILL BE POUNCHED TO ARA/AND

UNOFFICIAL TRANSLATION

CARACAS, MARCH 8, 1994

YOUR EXCELLENCY
MR. AMBASSADOR
MICHAEL KANTOR
UNITED STATES TRADE REPRESENTATIVE

600 SEVENTEENTH STREET, N.W.
WASHINGTON, D.C. 20506

DEAR MR. AMBASSADOR

I AM PLEASED TO WRITE TO YOU IN REFERENCE TO THE

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94 CARACAS 1676

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PAGE 01 CARACA 01676 022029Z

ACTION EB-01							
INFO LOG-03	ACDA-17	AID-01	ARA-01	CEA-01	CEQ-00	CIAE-00	
CTME-30	C-01	DASY-00	DINT-01	DDOE-00	EXIM-01	E-01	
FRS-01	HA-09	H-01	TEGE-00	INR-00	IO-16	ITC-01	
L-01	ADS-00	NSAE-00	NSCE-00	RES-09	OIC-02	OMR-01	
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TRSE-00	USIE-03	EPAE-00	/070W				

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DOE WASHDC
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USDOC FOR 3134/USFCS/OID/D/4H/TAFT
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GENEVA FOR USTR
STATE PLS PASS USTR
E.O. 12356: N/A

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PAGE 02 CARACA 01676 022029Z
TAGS: EPET, ENRG, ETRD, VE
SUBJECT: REFORMULATED GASOLINE - GOV TO SEEK
CONSULTATIONS FOR MARCH 7-8
REF: CARACAS 904 AND PREVIOUS

1. MAURO HOYER, ASSISTANT TO THE MINISTER OF ENERGY AND MINES ON REFORMULATED GASOLINE, CALLED ON MARCH 1 TO TELL US THE VENEZUELAN EMBASSY IN WASHINGTON WILL MAKE A FORMAL REQUEST THAT A SECOND ROUND OF CONSULTATIONS UNDER THE GATT ON REFORMULATED GASOLINE BE HELD IN CARACAS ON MARCH 7-8.

2. WE EXPLAINED TO HOYER THAT DUE TO LOGISTICAL REASONS THE U.S. SIDE WOULD ALMOST CERTAINLY NOT BE READY FOR A MEETING AT SUCH AN EARLY DATE. HOYER REPLIED THAT HE UNDERSTOOD BUT INDICATED THE GOV WANTS TO PROPOSE THAT THE MEETING BE HELD WITHIN SIXTY DAYS OF ITS INITIAL REQUEST FOR CONSULTATIONS.

3. IF THE ISSUE HAS NOT BEEN RESOLVED WITHIN THAT SIXTY-DAY PERIOD (AND THE GOV KNOWS IT WILL NOT BE), THE VENEZUELAN INTEND TO PROCEED WITH THE NEXT STEP OF REQUESTING THAT A GATT PANEL CONVENE TO REVIEW THE CASE. HOWEVER, HOYER MADE IT CLEAR THAT THE GOV WOULD STILL MUCH RATHER RESOLVE THE MATTER BILATERALLY WITH THE USG. HE EXPRESSED HOPE THAT THE NEXT MEETING COULD TAKE PLACE LATER IN MARCH.

4. COMMENT: ALTHOUGH THE VENEZUELAN CLEARLY WANT TO

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IS/PC/CDR *gjk* Date: 10/21/94

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RESOLVE THE GASOLINE ISSUE BILATERALLY. THEY REMAIN WARY

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PAGE 03 CARACA C1576 022029Z
AFTER WHAT THEY PERCEIVE TO BE THE TURN-AROUND IN THE
U.S. POSITION LAST YEAR. THE GOV WILL, THEREFORE,
CONTINUE TO PURSUE THEIR CASE IN THE GATT UNTIL BOTH
SIDES HAVE AGREED ON A SOLUTION AND PROBABLY UNTIL THAT
SOLUTION HAS BEEN IMPLEMENTED. DAVIDON
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ROUTINE

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PAGE 01 OF 02 GENEVA 02369 00 OF 02 111752 031506 S032237
INFO: DAND (01) SE (02) EAC (01) R3 (01) POSA (01) RJC (01) ARA (01)
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GENEVA 02369 00 OF 02 111752 031506 S032237
ENVIRONMENTAL PROTECTION AGENCY (EPA) ADOPTED ON
DECEMBER 15, 1993, A FINAL DECISION WITH REGARD TO THE
"REGULATION OF FUEL AND FUEL ADDITIVES - STANDARD FOR
REFORMULATED AND CONVENTIONAL GASOLINE" ("GASOLINE
REGULATION"). (FOONOTE: PUBLISHED AT 59 FED. REG. 7216,
DATED FEBRUARY 16, 1994, TO BE CODIFIED AT 48 C.F.R.
PART 801, THAT FAVORS GASOLINE PRODUCED IN THE UNITED
STATES AND CERTAIN IMPORTED GASOLINE TO THE DETRIMENT
OF GASOLINE EXPORTED BY VENEZUELA.

ACTION EB-00

INFO LOC-00 ACDA-17 AGRE-00 AID-00 ARA-00 CEA-01 CEQ-00
CIAE-00 COME-00 CTRE-00 C-01 DASY-00 OINT-01 DOOE-00
DOCE-00 EXIM-01 E-01 FRB-01 HA-05 M-01 TEDE-00
INP-00 10-16 ITC-01 LAB-01 L-00 ADS-00 HSAE-00
NSCL-00 OCS-05 DIC-02 OMB-01 OPIC-01 PA-01 PM-00
PRS-01 SNP-00 SP-00 SS-00 STR-01 TRSE-00 USIE-00
EPAE-00 PNB-00 /077W
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TO SECSTATE WASHDC PRIORITY 6020
INFO AMEMBASSY CARACAS

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USTR ELECTRONICALLY FOR BRINTA, IVES

E. O. 12366: N/A
TAGS: EPET, ENRG, ETRD, GAIT, USTR, VE
SUBJECT: VENEZUELA -- REFORMULATED GASOLINE

1. SUMMARY. VENEZUELA HAS RAISED THE STAKES IN ITS
EFFORTS TO OBTAIN MODIFICATIONS TO EPA REGULATIONS
AFFECTING VENEZUELAN EXPORTS OF REFORMULATED GASOLINE.
ON MARCH 11, 1994, VENEZUELA FILED WITH THE GATT
SECRETARIAT A DOCUMENT INDICATING ITS INTENT TO REQUEST

ON MARCH 23 THE FORMATION OF A GATT DISPUTE SETTLEMENT
PANEL UNLESS POSITIVE RESULTS ARE ACHIEVED BEFORE THAT
DATE IN BILATERAL NEGOTIATIONS. END SUMMARY.

2. THE VENEZUELAN MISSION TO THE GATT SUBMITTED TO
THE GATT SECRETARIAT ON MARCH 11, 1994, A DOCUMENT IN
SPANISH ENTITLED QUOTE REQUEST OF THE GOVERNMENT OF
VENEZUELA FOR THE ESTABLISHMENT OF A PANEL PURSUANT TO
ARTICLE XXIII:2 REGARDING MEASURES IMPOSED BY THE
UNITED STATES CONCERNING GASOLINE. END QUOTE. VENEZUELA
HAS ASKED THAT THIS MATTER BE PLACED ON THE AGENDA FOR
THE MARCH 23-24 SESSION OF THE GATT COUNCIL, AND THAT
THE DOCUMENT BE CIRCULATED TO ALL CONTRACTING PARTIES.

3. NOTWITHSTANDING THE TITLE OF THE DOCUMENT,
VENEZUELA CHARACTERIZES THE SUBMISSION OF THIS DOCUMENT
AS A QUOTE MEDIDA PREVENTIVA. END QUOTE, WHICH IS
PERHAPS BEST TRANSLATED AS PRECAUTIONARY MEASURE.
VENEZUELAN MINISTER COUNSELLOR JUAN NISLE EXPLAINED
THAT VENEZUELA IS WILLING NOT TO MAKE THE REQUEST AT
THE MARCH 23 GATT COUNCIL MEETING IF THE USG CAN ASSURE
VENEZUELA THAT IT WOULD NOT BLOCK A PANEL REQUEST AT
THE NEXT COUNCIL MEETING, SCHEDULED FOR EARLY MAY 1994.
4. PARA 5 SETS OUT A ROUGH TRANSLATION OF THE
DOCUMENT SUBMITTED TODAY BY VENEZUELA.

5. BEGIN TEXT:

- REQUEST OF THE GOVERNMENT OF VENEZUELA
- FOR THE ESTABLISHMENT OF A PANEL
- PURSUANT TO ARTICLE XXIII:2 REGARDING
- "MEASURES IMPOSED BY THE UNITED STATES CONCERNING
- GASOLINE"

AS WAS STATED IN DOCUMENT DS47/1 AND IN THE GATT
COUNCIL SESSION HELD ON JANUARY 24, 1994, THE V.S.

TAKING INTO ACCOUNT THAT THE GASOLINE REGULATION IS
INCONSISTENT WITH THE GATT OBLIGATIONS OF THE UNITED
STATES, IN PARTICULAR, BUT NOT LIMITED, TO THE
OBLIGATIONS UNDER ARTICLES III, I, VIII AND XI OF THE
GENERAL AGREEMENT, AND THAT THE GASOLINE REGULATION
NULLIFIES AND IMPAIRS THE BENEFITS ACCRUING TO
VENEZUELA UNDER THE GENERAL AGREEMENT, AND TAKING INTO
ACCOUNT THE NEGATIVE IMPACT OF THE GASOLINE REGULATION
ON VENEZUELAN EXPORTS OF THIS PRODUCT, THE GOVERNMENT
OF VENEZUELA REQUESTED, ON JANUARY 14, 1994, THE FORMAL
INITIATION OF CONSULTATIONS WITH THE GOVERNMENT OF THE
UNITED STATES UNDER ARTICLE XXIII:1, CONCERNING THE
MATTER IN QUESTION.

BY MUTUAL AGREEMENT, THESE CONSULTATIONS WERE HELD ON
FEBRUARY 11, 1994. AT THIS MEETING, VENEZUELA PROVIDED

A DESCRIPTION OF THE PRINCIPAL GATT VIOLATIONS
PRESENTED BY THE GASOLINE REGULATION AND A
QUESTIONNAIRE RELATED TO THESE ISSUES. THE UNITED
STATES, FOR ITS PART, POSED THREE QUESTIONS TO
VENEZUELA IN REFERENCE TO THE DESCRIPTION PROVIDED BY
VENEZUELA. BOTH PARTIES EXCHANGED THEIR RESPECTIVE
RESPONSES, IN WRITING, ON MARCH 1, 1994. HOWEVER, THE
RESULTS OF THESE CONSULTATIONS WERE CONSIDERED TO BE
UNSATISFACTORY IN RESOLVING THE SITUATION DESCRIBED,
PARTICULARLY BECAUSE THE GOVERNMENT OF THE UNITED
STATES COULD NOT JUSTIFY THE MEASURES IN QUESTION.

AT THE FEBRUARY 11 MEETING, IT WAS ALSO AGREED THAT THE
PARTIES WOULD CONSIDER THE POSSIBILITY OF MEETING AGAIN
TO EXCHANGE VIEWS. HOWEVER, THE UNITED STATES
REQUESTED ORALLY THAT THE FOLLOW-UP MEETING BE

POSTPONED INDEFINITELY SO THAT IT COULD PROCEED WITH
INTERNAL DELIBERATIONS ON THIS MATTER.

GIVEN THAT THE OPPORTUNITY TO INCLUDE THIS ITEM ON THE
AGENDA FOR THE NEXT COUNCIL MEETING EXPIRES AT 6:00PM
ON MARCH 18, 1994, AND IN VIRTUE OF THE FACT THAT THE
IT IS NOT ANTICIPATED THAT THE SECOND SET OF
CONSULTATIONS WILL BE HELD BEFORE MARCH 14, 1994, THE
DATE ON WHICH WILL CONCLUDE THE 60-DAY PERIOD DESCRIBED
IN PARAGRAPH 6.2 OF THE DECISION OF APRIL 12, 1989,
RELATING TO IMPROVEMENTS TO THE GATT DISPUTE SETTLEMENT
RULES AND PROCEDURES ("1989 DECISION"); THE GOVERNMENT
OF VENEZUELA DEEMS IT APPROPRIATE, AS A PRECAUTIONARY

MEASURE, TO REQUEST THE INCLUSION OF THIS ITEM IN THE
AGENDA FOR THE MARCH 23-24 COUNCIL SESSION SO THAT WE
MAY BE PERMITTED TO INFORM THE COUNCIL ON THE RESULTS
OF THE CONSULTATIONS, AND IN CASE THESE CONSULTATIONS
DO NOT PRODUCE POSITIVE RESULTS, TO MAKE A REQUEST FOR
THE ESTABLISHMENT OF A PANEL CONCERNING THIS MATTER
PURSUANT TO ARTICLE XXIII:2 AND ACCORDING TO THE
PROCEDURES ESTABLISHED IN THE 1989 DECISION.

THE OBJECTIVE (TERMS OF REFERENCE) OF THE PANEL WOULD
BE TO EXAMINE THE INCONSISTENCY OF THE GASOLINE

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PAGE 02 OF 02 GENEVA 02369 00 OF 02 1117512 021506 5832237
REGULATION IN LIGHT OF THE PROVISIONS OF ARTICLES III,
V, VIII AND XI OF THE GENERAL AGREEMENT, THE
NULLIFICATION AND IMPAIRMENT OF THE BENEFITS ACCRUING
TO VENEZUELA UNDER THE GENERAL AGREEMENT, AND ANY OTHER
IMPLICATION THAT THE GASOLINE REGULATION HAS WITH
REGARD TO VENEZUELAN EXPORTS TO THE UNITED STATES.

END TEXT

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PAGE 01 STATE 06422 152126Z 007223 5076516

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INFO: DAND 2; EAC 01; RJ 01; PDAS 01; RJC 01; ARA 01; PPC 01; DEP 01; ECF 01; DAS 01; PPA 01; SCD 01

...THIS "COMPROMISE" IS THE FINAL OFFER WE ARE PREPARED TO MAKE TO RESOLVE THIS ISSUE AND IS CONDITIONAL ON THE GOVERNMENT OF VENEZUELA GOING DROPPING ITS REQUEST FOR THE FORMATION OF A GATT PANEL AT THE MARCH 22 GATT COUNCIL AND NOT RESURRECT IT DURING OUR RULE-MAKING PROCESS.

OPICIN ARA-00

INFO LOG-00 ACDA-1T ACSE-20 3-2-00 AMAD-01 CEA-01 CEO-00
CFAC-00 COME-00 CTRG-00 C-01 DAST-00 DIRM-01 DSOE-00
DSCE-00 ER-00 EXIR-01 E-01 FRO-01 GA-00 H-01
TECE-00 TMO-00 TO-16 ITC-01 LAM-01 L-00
NSAC-00 NSCE-00 OCS-00 DIC-02 OMB-01 OPIC-01 PA-01
PR-00 PPS-01 P-01 SFP-00 SP-00 SSO-00 SS-00
STR-01 TRSE-00 USIE-00 EPAE-00 PNO-00 JATIN

--A PANEL REQUEST IN THE MIDDLE OF OUR RULE-MAKING PROCESS COULD LEAD SOME TO QUESTION WHY WE ARE PROPOSING A REVISED RULE THAT FAILS TO RESOLVE THE DISPUTE.

--WE PLAN TO SIGN THE PROPOSED RULE BY APRIL 21, FOLLOWED BY PUBLICATION AND PUBLIC COMMENT. WE WILL HAVE TO EVALUATE THESE PUBLIC COMMENTS BEFORE THE PROPOSED RULE CAN BE FINALIZED.

--THE GOV WOULD, OF COURSE, RETAIN ITS RIGHT TO A GATT PANEL SHOULD PROGRESS ON THIS ISSUE NOT CONTINUE.

--WE WOULD APPRECIATE YOUR ASSURANCES THAT OUR PROPOSAL NOT BE MADE PUBLIC AT LEAST FOR SEVERAL DAYS, TO PERMIT US TO INFORM OUR DOMESTIC INTERESTS.

004727 152126Z /00

UNCLASSIFIED
TO AMEMBASSY CARACAS IMMEDIATE
INFO USMISSION GENERAL WASHINGTON
STATE 064223

DATE: 06/21/83
CLASS: CONF
SUBJECT: TALKING POINTS FOR AMBASSADOR DAVIDSON REGARDING
RESOLUTION OF REFORMULATED GASOLINE DISPUTE

REF: WU 91 CARACAS 1993, 01 31 GENERAL 2363

3. SEPTEMBER COMPROMISE: A FOREIGN REFINER WOULD NOT BE ALLOWED TO ESTABLISH AND USE ITS OWN BASELINE FOR CONVENTIONAL GASOLINE EXPORTS TO THE U.S. ALL IMPORTED CONVENTIONAL GASOLINE WOULD BE HELD TO THE STATUTORY BASELINE AS SPECIFIED BY U.S. REFORMULATED GASOLINE

REGULATIONS ISSUED DECEMBER 15, 1992, REGARDING REFORMULATED GASOLINE, A FOREIGN REFINER WOULD BE ALLOWED, IF VERIFIED TO EPA'S SATISFACTION, TO CAP ITS 1990, 1990 4E-1000 AND OLEFIN LEVELS AT THAT REFINER'S 1990 LEVELS, BUT ONLY FOR YEARLY VOLUMES IN 1995, 1996 AND 1997, EQUAL TO THE FOREIGN REFINER'S 1990 GASOLINE

EXPORTS TO THE UNITED STATES. ANY ADDITIONAL VOLUMES REFORMULATED GASOLINE WOULD BE HELD TO THE STATUTORY ASELIN LEVELS OF SULFUR, T-90 4E-1000 AND OLEFINS. FOREIGN REFINERS WOULD BE HELD TO A STANDARD OF ENVIRONMENTAL TO DOMESTIC REFINERS IN ENFORCEMENT, MONITORING AND DOCUMENTATION REQUIREMENTS.
CHRISTOPHER

1. REPRESENTATIVES OF STATE, USA, EPA, DOE, OMB AND THE WHITE HOUSE MET AND DISCUSSED THE U.S.-VENEZUELAN REFORMULATED GASOLINE (RFG) DISPUTE ON MARCH 14. THE GROUP DISCUSSED TWO OPTIONS DEVELOPED BY EPA: 1) RETAIN THE FINAL RFG RULE; AND 2) ADOPT FOREIGN REFINER BASELINES WITH VOLUME CAP (THE SEPTEMBER COMPROMISE). THE INTER-AGENCY GROUP AGREED THAT THE USC SHOULD OFFER THE GOV THE SEPTEMBER COMPROMISE, HOWEVER, IN RETURN, THE GOV WOULD HAVE TO AGREE TO NOT GO AHEAD WITH ITS REQUEST FOR A GATT PANEL AND NOT PUBLICIZE THE DECISION UNTIL THE USC HAD TIME TO CONSULT WITH CONGRESS AND OTHER INTERESTED PARTIES. AS EVIDENCE OF THE USC'S GOOD FAITH, THE EPA WOULD SIGN THE PROPOSED CHANGES IN THE RFG RULE BY APRIL 21 (THE LAST DAY FOR PUTTING ITEMS ON THE AGENDA FOR THE NEXT GATT MEETING IN MAY). TALKING POINTS FOR AMBASSADOR'S MARCH 15 MEETINGS WITH GOV OFFICIALS ARE

PROVIDED IN PARA 2. AN EPA-APPROVED DESCRIPTION OF THE SEPTEMBER COMPROMISE IS PROVIDED IN PARA 3.

2. TALKING POINTS:

--THE U.S. ADMINISTRATION YESTERDAY DECIDED IT WAS WILLING TO MOVE FORWARD WITH A PROPOSED RULE ON REFORMULATED GASOLINE (RFG) WHICH IF ADOPTED WOULD REVISE THE RULE PRONOUNCATED ON DECEMBER 15, 1992. THE PROPOSED RULE WOULD ALLOW FOREIGN REFINERS TO ESTABLISH VERIFIABLE INDIVIDUAL BASELINES FOR RFG WITH A VOLUME CAP. THIS

PROPOSED RULE IS CONSISTENT WITH THE "COMPROMISE" INFORMALLY DISCUSSED WITH THE GOV LAST SEPTEMBER.

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STATE 064223
DATE: 06/21/83
CLASS: CONF
SUBJECT: TALKING POINTS FOR AMBASSADOR DAVIDSON REGARDING
RESOLUTION OF REFORMULATED GASOLINE DISPUTE
REF: WU 91 CARACAS 1993, 01 31 GENERAL 2363

REF: WU 91 CARACAS 1993, 01 31 GENERAL 2363
DATE: 06/21/83
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SUBJECT: TALKING POINTS FOR AMBASSADOR DAVIDSON REGARDING
RESOLUTION OF REFORMULATED GASOLINE DISPUTE
REF: WU 91 CARACAS 1993, 01 31 GENERAL 2363

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Department of State

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PAGE 01 STATE 073139 212102
ORIGIN ARA-00

INFO	LOG-00	AIC-00	AMAD-01	CEA-01	CIAE-00	COME-00	CTME-00
	C-01	OASY-00	DINT-01	DODE-00	DOEE-00	EB-00	EXIM-01
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	L-00	ADS-00	NSAE-00	NSCE-00	DES-00	OMB-01	OPIC-01
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TO AEMBASSY CARACAS IMMEDIATE

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E. O. 12958 DECLASS. AUTHORITY

TAGS: EPET PREL VE

SUBJECT: PROPOSED EXCHANGE OF LETTERS FOR RFG DISCUSSIONS

REF: IAI 94 CARACAS 2234

1. WASHINGTON APPROVES EMBASSY PLAN OF ACTION OUTLINED
IN PARAGRAPH 6 OF REPTEL. WASHINGTON REQUESTS THAT THE

APRIL 21 DATE IN PARAGRAPH 7 BE CHANGED TO APRIL 20.
WASHINGTON ALSO REQUESTS THAT THE FOLLOWING SENTENCE BE
ADDED AFTER THE SECOND SENTENCE IN THE SAME PARAGRAPH: WE
UNDERSTAND THAT THIS IS SUFFICIENT PROGRESS THAT THE GOV
WILL NOT REQUEST A PANEL AT THE MARCH 23 GATT COUNCIL
MEETING AND WILL NOT PURSUE A PANEL REQUEST DURING THE
U. S. RULE-MAKING PROCESS.
CHRISTOPHER

DEPARTMENT OF STATE

IS/FPC/CDR JMC Date: 10/27/94

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R. E. HALL
President
Chief Executive Officer

CITGO Petroleum Corporation
Box 3758
Tulsa, Oklahoma 74102
March 24, 1994

DEPARTMENT OF STATE IS/FPC/CDR 411C Date: 10/22/94

Mr. Warren Christopher
Secretary of State
Department of State
2201 C Street, N.W.
Washington, D.C. 20520

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Dear Mr. Secretary:

I would like to commend the Administration for its decision to initiate rulemaking that allows Venezuela to continue participation in the U.S. gasoline market. CITGO is the major buyer and seller of gasoline from Venezuela. This issue is important because approximately 210 CITGO distributors in the Northeast and Mid-Atlantic states depend to some extent on PDVSA gasoline. These distributors supply 5,200 retail gasoline outlets that employ some 42,000 people. Our customers appreciate the reliability of gasoline supply that CITGO maintains, and become concerned when gasoline supply is constrained.

I would also like to clarify what I believe are some inaccuracies contained in recent correspondence you have received regarding the "cleanliness" of gasoline supplied to the United States by Venezuela's Petróleos de Venezuela, S.A. (PDVSA). Recent statements made by the American Petroleum Institute (API) and the National Petroleum Refining Association (NPRA) are in our opinion misleading. Both of these groups recently sent you a letter implying that air quality standards would be compromised should PDVSA be allowed to continue supplying gasoline to the U.S. market. I do not believe this to be the case.

I should point out that the average 1990 gasoline baseline so often referred to is not one number, but 9 individual gasoline parameter averages. Therefore, all domestic gasolines will be higher or lower on some of these parameters depending on the particular refinery. While it is true that PDVSA gasoline is higher in olefins and sulfur than average 1990 domestically refined gasoline parameters, other parameters, particularly air toxics like benzene and aromatics, are lower than average U.S. baseline parameters. Some domestically produced gasoline will also be higher in olefins and sulfur than the average baseline, and indeed be

Mr. Warren Christopher
Page 2
March 24, 1994

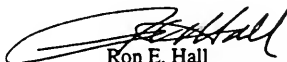
very similar to Venezuelan gasoline. The agreement EPA and PDVSA have reached should assure that PDVSA gasoline will be as clean as most domestically refined gasoline, and thus should not detrimentally affect U.S. air quality problems.

With reference to market concerns some companies may have, a report dated September 2, 1993, by the Congressional Research Service concluded the following:

In sum, it would appear that granting PDVSA its own 1990 baseline would not lead to a change in gasoline brand market shares significantly larger than occurs regularly from the mix of market forces at large. It would, however, reduce slightly, in markets served by PDVSA, the pressure for higher gasoline prices generated by the RFG program's requirements.

I appreciate the opportunity to clarify this matter, and would be happy to discuss it with you at your convenience.

Sincerely,



Ron E. Hall
President and Chief Executive Officer

xc: Anthony Lake

300787003

The Honorable Warren Christopher
Secretary of State
Department of State
2201 C Street, N.W.
Washington, D.C. 20520

3/28/94

UNCLASSIFIED

(c) ~~Re: Briefing by Congressman Dingell:~~ State, USTR, EPA and DOE representatives briefed staff members for House Energy and Commerce Committee Chairman Dingell (D-Michigan) and Committee Member Margorie Margolies-Mezvinsky (D-Pennsylvania) on March 25. Committee/Dingell staffer Ed Finnigan questioned why the September Compromise was accepted now and not last September--the presumption being that the EPA changed its position only as a result of the GOV's threatened GATT panel. EPA spokesman Dick Wilson acknowledged the seriousness of the threatened GATT panel, but said the EPA would have changed its position with or without the threat. The Committee also requested a list of all meetings between the USG and GOV officials on the subject of RFG since last summer, plus all letters, memoranda, telegrams and other relevant documents since last September on this subject. Dingell-Christopher letter of 3/25/94.

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(C) ~~UNCLASSIFIED~~ briefings on RFG Agreement: EPA issued a press release on the U.S.-Venezuelan reformulated gasoline (RFG) agreement on March 23. This was followed by inter-agency briefings of the House, Senate, domestic oil industry and environmental NGO's on March 24. The briefings included an EPA explanation of the latest developments in EPA's rule-making process, a USTR update on the GOV's GATT actions and a State Department description of the overall U.S.-Venezuelan economic relationship. House staffers expressed irritation that Congress had not been pre-advised of the Administration's intended course of action, whereas Senate staffers were concerned about the role U.S. GATT obligations might have had in undermining U.S. environmental law. The environmental NGO's were generally receptive to the EPA's presentation, while the domestic oil industry reaction was politely skeptical. The same inter-agency briefing will be provided to the staffs of Congressman Dingle (D-Michigan) and Margolies-Mezvinski (D-Pennsylvania) on March 25.

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~~(C)~~ **Resolution of RFG Dispute:** The USG and the GOV reached agreement on March 22 to resolve the reformulated gasoline (RFG) dispute, the most contentious issue in U.S.-Venezuelan relations. Under the agreement, the USG will modify the EPA December 15, 1993 regulation for the import of RFG to allow Venezuela to establish and use its own baseline for RFG exports to the U.S. with a volume cap equal to the volume of gasoline exported to the U.S. in 1990. In return, the GOV will withdraw its request for a panel at the March 23 GATT Council Meeting with the understanding that the GOV will resume its request if the revised rule does not go into effect by August 22. The agreement will not result in an increase in pollution over 1990 levels. EPA issued a press release on the subject on March 23. An inter-agency group will begin briefing interested members of Congress and other interested parties on March 24.

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USG Concludes First Round of GATT Consultations: State (ARA and EB), USTR and EPA representatives overcame the weather and met with their Venezuelan counterparts on February 11 for the first round of the GATT Article XXII Consultations on reformulated gasoline. The Venezuelan delegation's opening statement complained that the EPA's December 15, 1993 ruling on reformulated gasoline violates both Article III (national treatment), Article I (most favored nation treatment) and Article XI (import restrictions) of the GATT in addition to imposing estimated damages of \$150 million per year in lost sales of reformulated gasoline during the 1995-1997 period. The Venezuelan delegation also presented 29 written questions about the EPA ruling. The U.S. delegation questioned the Venezuelan interpretation of the GATT statutes, but expressed a willingness to explore options for resolving the dispute that would not compromise U.S. environmental concerns. Both sides agreed to provide written answers to each other's questions by February 28. The Venezuelan delegation then invited the U.S. delegation to conduct the next round of consultations in Caracas prior to March 14 (presumably during the week of February 28). There was no mention of the technical options that had been informally discussed by the GOP and the EPA earlier this month. EPA hopes to have an options memo prepared for EPA/inter-agency consideration during the week of February 21. An inter-agency agreement on an option would pave the way for a de facto settlement outside the GATT consultations.

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Reformulated Gas GATT Consultations: State (ARA and EPA), USTR, EPA and DOE representatives met on February 9 to coordinate the USG approach to the GATT Article XXII Consultations on reformulated gasoline scheduled to begin on February 11. The Article XXII Consultations are designed to share information and are not expected to lead to a negotiated settlement at this time. The USG will take a cautious approach since anything the USG says can be used against it in a future GATT panel. The February 9 meeting concluded with a recognition that an inter-agency political decision must be taken soon. This is because it will take several months to enact any changes in the existing EPA reformulated gasoline regulation and PDVSA will need substantial lead-time to accommodate the final ruling which goes into effect on January 1, 1995. EPA agreed to prepare a final policy options paper that EPA/inter-agency principals could consider by the end of February. A USG-GOV agreement on one of these options would be the first step to the resolution the dispute.

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IEP

March 30, 1994

I. Daily Report

-- (U) EPA, USTR and State Continue Hill Briefings on Reformulated Gasoline

- o EPA, USTR and EB/IEP briefed House Environment and Health Committee staff on reformulated gasoline and Venezuela March 30.

-- EPA was able to clear up several factual misunderstandings with staff members on substance.

- o However, staff reflected considerable ire over process, suggesting that EPA was putting a done deal on the table.

-- Congress would have liked to have been consulted in advance and it feels the public comment period that will follow the proposed rule change publication is a day late and a dollar short.

- o EPA responded that, as a rule-making agency, it wants to apply laws equally across the board. When EPA became convinced that it could verify, monitor and enforce foreign refinery baselines, it moved to propose a change.


-- If other parties can effectively challenge Venezuela's ability to comply, EPA can modify or rescind the rule change.

- o USTR explained that the U.S. is often the first to complain when other countries set two standards, one for domestic products and the other for imports.

- o Staff also accused USTR of wanting to cut and run at the first sign of an environmental GATT challenge.

-- USTR noted it is now vigorously defending other environmental GATT challenges, such as the one against U.S. automobile fuel efficiency standards (CAFE).

-- USTR indicated that the existing reformulated gasoline rule would be difficult to defend on environmental grounds given the different standards for foreign and domestic product.

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March 22

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← Venezuela Accepts Reformulated Gasoline Deal

- o Today Venezuela accepted a U.S. compromise and will pull back its request for a GATT panel on U.S. reformulated gasoline rules on the agenda for the March 23 GATT council meeting.
- o The GOV accepted our offer to issue new regulations by April 22 allowing Venezuela to set its own baseline for reformulated gasoline imports, but capped at 1990 Venezuelan export volumes. The deal will be confirmed in an exchange of letters, to take place today. The deal returns to the terms of a tentative compromise worked out between EPA and Venezuela late last year.
- o We rejected last-minute Venezuelan pressure to allow a baseline for their conventional gasoline imports.
- o If the USG does not proceed with the new regulations as agreed, or they are changed after the comment period, the GOV has explicitly reserved the right to seek a GATT panel.

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~~4~~ EPA Suggests "September Compromise" on Venezuelan Reformulated Gasoline

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- EPA called in State and USTR staff today for bad and good news on options to diffuse Venezuela's reformulated gasoline GATT challenge.
- EPA's Ann Arbor labs now believe that options stressing "emissions" over gasoline ingredient levels (baselines) harbor larger than anticipated environmental short-comings.
 - The emissions based options would also require a more extensive, and potentially drawn-out, rulemaking process.
- EPA staff has concluded that the best option would be to offer Venezuela the "September compromise" -- allowing Venezuela its own regulatory baseline for the first 60,000 b/d with the stricter rule applying above that point.
 - Venezuela accepted this option in September 1993. The agreement held until December 1993, when EPA principals removed the provision from the final rule.
- On January 14, Venezuela called for GATT consultations, starting a 60 day clock after which Venezuela may call for a GATT panel.
 - Consultations were held February 11 in Washington.
 - Venezuela has called for a second round of consultations in Caracas before the 60 day period expires on March 15.
- On February 23, USTR will host EPA and State to to agree on a formal USG offer to Venezuela.
 - All indications are for a consensus agreement on the September compromise.
 - USTR will likely then call a sub-cabinet principals' meeting to endorse the approach. (EB/IEP)

Documents
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Washington, D.C. 20520



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IS/IPC/COR/AMC Date: 10/31/94

MEMORANDUM

TO: EB

FROM: EB/OGC

SUBJECT: Your Meeting with API on Reformulated Gasoline

SUMMARY: API plans to raise its concerns over pending EPA statutes, due out the end of the year. They claim the new regs would provide Venezuela an unfair advantage for its reformulated gasoline exports. API asserts that EPA should not allow regs that would favor Venezuela and that a stricter standard on imported gasoline is necessary because foreign refineries are not required to meet the full range of U.S. environmental standards and therefore gain a significant cost advantage. The Government of Venezuela (GOV) asserts that a different standard for U.S. vs. foreign products is a GATT violation. State and USTR met with EPA April 29 to raise our concerns over any potential GATT issues, suggesting that EPA discuss the issue further with the GOV. **END SUMMARY.**

BACKGROUND

The Clean Air Act of 1990 requires EPA to issue final statutory guidelines by the end of the year for the mandatory introduction of reformulated (cleaner burning) gasoline into several U.S. metropolitan areas. EPA guidelines will introduce reformulated gasoline in two-stages. The first "transition" stage, 1995-1997, is intended to provide refiners time to refit and will allow for different levels of compliance. From 1997 on there will be one universal reformulated gasoline standard, set by the "complex model." EPA has not yet finalized the complex model and it remains the object of much debate.

EPA published its draft transition period statutes in the spring, hoping to receive public comment and issue final statutes by September 15 of this year. EPA has closed its comment period, but will not issue the statutes until the end of 1993.

AMERICAN REFINERS

The EPA's draft statute essentially directs each U.S. refiner to "clean up" its gasoline from a baseline of that refiner's average 1990 gallon of gasoline. Refiners would have to hold three pollutants, olefins, T-90 and sulfur, at their

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1990 levels while cleaning up the rest of the gallon in line with the EPA's prescribed "simple model." Thus, even after reformulation, a gallon of Mobil reformulated gasoline could contain very different levels of olefins, T-90 and sulfur than a gallon of Texaco, or any other brand, of reformulated gasoline.

EPA would also aggregate the levels of olefin, T-90 and sulfur found in each U.S. refiners gasoline into a national average or "statutory baseline." If a refiner can not prove its 1990 levels of the three components, it would have to meet the average. If a refiner was substantially cleaner than average, it would not have the option of lowering its standard to the average. A U.S. refiner that was a bit dirtier than the average statutory baseline, however, would only have to hold its own levels of the three pollutants constant, it would not have raise its compliance to the statutory baseline average.

In addition to the statutes for reformulated gasoline, above, the EPA would monitor to see that a U.S. refiner's conventional gasoline was "no dirtier" than its gasoline in 1990. The EPA wants to assure that refiners do not simply shift excess pollutants out of reformulated gasoline and dump them into conventional gasoline.

FOREIGN REFINERS

EPA told us 4/29 that they could not estimate each foreign refiner's 1990 specs for these three components; nor could most countries be trusted to provide EPA with scientifically valid 1990 profiles. For that reason, EPA's draft statute requires a foreign refiner to hold its olefins, T-90 and sulfur at or below the U.S. statutory baseline average of 1990 -- as well as to comply with the rest of the simple model.

Setting a uniform standard for foreign reformulated gasoline exports to the U.S. poses advantages and disadvantages for foreign suppliers:

ADVANTAGES

Foreign refineries whose levels of the three pollutants are better than the U.S. average need make no adjustment of these pollutants to meet the new standard.

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Those foreign refiners with higher levels of the three pollutants could "cherry pick" clean elements to make reformulated gasoline, shifting dirty elements into their domestic conventional gasoline; an option not open to U.S. refiners. (Foreign conventional gasoline exported to the U.S. market, however, would also have to be no dirtier than that exported to us in 1990.)

DISADVANTAGES

A foreign refiner with a dirtier gasoline than the U.S. average would have to reduce the three pollutants until it met the U.S. average. Venezuela's argument is that this provision sets a higher hurdle for foreign firms than for domestic ones.

VENEZUELA'S PREDICAMENT

Venezuela's gasoline exports to the United States were cleaner than the U.S. average in sulfur and T-90 but dirtier in terms of olefin content. They assert that they cannot reduce olefins to the U.S. average level without cutting their anticipated exports of reformulated gasoline in half, at a significant financial loss. PDVSA is asking EPA for the opportunity to set its own 1990 baseline, just as U.S. companies are able to do. PDVSA tells us they have invested 600 million dollars so far to comply with reformulated gasoline standards and that they will be ready to meet the stricter "complex" model in 1997 like everybody else.

PDVSA and the GOV argue that they have made a strategic and very expensive decision to outfit their refining sector towards the U.S. market. They claim that U.S. producers are more worried about Venezuelan competition than air quality. The GOV has emphasized that the U.S., which can not meet its own petroleum needs, gains energy security from Venezuela's moves to more fully integrate itself as a prime U.S. supplier. (They are our number two supplier of imported oil at about 1.2 mmbd or 15 percent of our imports.)

CONFLICTING ENVIRONMENTAL CLAIMS

Both API and PDVSA have put forth environmental claims and counter-claims that we are not in a position to evaluate. PDVSA claims that their reformulated gasoline, because it is lower in T-90 and sulfur than other brands, will have no worse an effect on the environment than other transitional brands. API claims that with higher olefins, Venezuelan reformulated gasoline would be relatively more injurious to the environment.

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STATE'S INVOLVEMENT

The Venezuelan embassy in Washington and ranking GOV officials have raised the issue repeatedly over the last year with U.S. embassy Caracas, EPA, Capitol Hill, ARA A/S's Aronson and Watson, EB/OGE, and Secretary of Energy O'Leary. On August 2, Venezuelan Oil Minister Parra met with EPA Deputy Director Sussman in Washington to discuss the issue and work out a compromise.

C1

On August 2, EPA Deputy Administrator Sussman met with Venezuelan Oil Minister Parra in Washington. No Department representatives were present.

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EXCISE

cc: Subject: State Comments on Draft paper.

Page 1, paragraph two:

Suggest you add some detail by replacing with: (Also, Energy did not participate in GATT talks.)

On January 14 the Government of Venezuela formally requested GATT Article XXII Consultations on "Regulation of Fuels and Fuel Additives -- Standard for Reformulated and Conventional Gasoline." On February 11, USTR, State, and EPA received a Venezuelan delegation and held the first round of GATT consultations. At that meeting, Venezuela alleged that U.S. reformulated gasoline statutes violate U.S. GATT obligations and that they nullify and impair Venezuela's rights under that GATT. Venezuela specifically asserted that the gasoline rule is inconsistent with the GATT principal of national treatment, that it denies Venezuela most-favored nation treatment and that it constitutes impermissible restriction on imports under GATT. The U.S. responded that it does not accept Venezuela's GATT interpretations. However, the U.S. expressed a willingness to examine other potential options for regulating reformulated gasoline so long as they are consistent with environmental aims of the Clean Air Act of 1990.

At the end of the February 11 consultations, Venezuela requested that a second round be held in Caracas prior to March 14.

Venezuela, and other refiners, will need substantial lead-time to prepare for the rule's entry into force on January 1, 1995.

Page two

Under Cons Second Tick:

Replace the sentence starting with State strongly favors... with:

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... compared to domestic refiners. Domestic refiners argue that foreign refiners gain a competitive advantage because they are not subject to U.S. environmental laws and can shift dirtier gasoline to their home and third country markets. They also allege that any modification of the rule would have adverse air quality consequences.

Options:

at top on page two, note that "the option" that is referred to ⁰⁴ in text is option two.

Option One:

Under pros:

Domestic refiners and RECAUM have contacted the Congress about this issue. EPA has received letters, with total signatures of x members raising concerns about the foreign refiner base^{line} issue.

Venezuelan representatives have also contacted the Congress. Five members of Congress have written EPA raising concerns that denying foreign refiners baselines would have negative gasoline price implications.

o Environmental community has not written EPA on the issue. X

Cons:

delete second point (which cut u.s. efforts) de ✓

keep third point (which covers second point) de ✓

(NEC staff person said this following point should be in this section, probably a tick under the "Jeopardize ability" point:

- U.S. efforts to strengthen GATT environmental provisions would be damaged should GATT decide, justly or unjustly, that a U.S. environmental statute was being employed as protectionism.

I think we
already make
this pt.

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Option 4

This is a compromise position that provides partial, not full, foreign refiner baselines. Venezuela's GATT challenge seeks full ability to set baselines but they agreed to this provision in September 1993, and ~~it is~~ ^{was} the only option to settle.

-- In return, we would require Venezuela to agree to U.S. monitoring/measurement procedures.

Pros:

o

CI

Rationale for the Baseline Approach in the Final Rule:

...second paragraph:

We feel very strongly that it should be replaced along the lines of the following:

CI

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USTR Comments on revised options paper.

USTR Comments in pen.

182725

BACKGROUND

Second Paragraph: change "informal" to "formal" in last sentence. *de*

Fifth Paragraph: change "Although the option discussed below" to "Although option 2 discussed below..." *de*

OPTION 1

PRO:

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Bureau of International Affairs
Department of State
Washington, D.C. 20520
Fax (202) 647-6477



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To: _____

From: _____

Tel: (202) 647- _____

Number of pages including cover sheet: _____

Remarks: We just met with ARA
(memo over) - his changes follow CI
Thanks.

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Venezuelan Gasoline Issue
Talking Points

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Background

- EPA's final rule issued on December 15, 1993, provided that
 - domestic refiners must use individual baseline gasoline parameters (olefins, sulfur and T-90) for compliance purposes for reformulated gasoline (RFG) for 1995-97 only and for conventional gasoline (CG) always, and
 - foreign refiners must use the Clean Air Act specified (statutory) baseline (the statutory baseline is the average of all 1990 U.S. gasoline) for both RFG and CG.
- On January 14, 1994, the government of Venezuela (GOV) asked for formal GATT consultations citing the RFG rule as discriminatory to foreign refiners because GOV claims that they would not be afforded the option of using their own baseline as domestic refiners would.
- On March 9, GOV asked that their request for a GATT panel be taken up at the GATT council meeting on March 23rd in Geneva.
- A GATT challenge presents difficult issues for the U.S.

The Resolution

- The U.S. has agreed to ~~submit~~ partially address the GOV's concerns in order to resolve this issue. The resolution provides that EPA will issue a proposed rule that permits foreign refiners to use their individual baselines for RFG compliance for 1995-97 if they are verifiable and only to the extent of their 1990 import volume. Any RFG beyond their 1990 volume and CG would have to use the statutory baseline. (The rules for CG are not affected.) The proposed rule would also provide for enforcement documentation and monitoring equivalent to that imposed on domestic refiners.
- The proposed rule will be issued by April 20 and will be followed by a public comment period.

OPTIONAL FORM NO. 10

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Need for Resolution1. General

- The resolution avoids a potentially costly and difficult GATT dispute settlement process and avoids a GATT panel on this issue.

2. Environmental

- A successful GATT challenge would require the U.S. to amend the RFG and CG regulations to permit foreign refiners to use their individual baseline, without any volume restriction, for both RFG and CG. Since use of individual baselines without restriction would allow a doubling of Venezuelan gasoline imports, this loss would result in ~~significant~~ NOx increases over 1990 levels because of the high olefin and sulfur levels of the gasoline. The resolution would not result in a NOx increase over 1990 levels as required by the Clean Air Act. It would have a small (much less than 1%) NOx increase compared to the current RFG final rule. ✓

3. Trade

c1

- A GATT panel finding, justly or unjustly, that a U.S. environmental regulation was being used as protectionism would damage U.S. efforts to strengthen GATT environmental provisions.

4. Domestic Refiner Impact

- A successful GATT challenge would allow Venezuela to use ^{its} ~~their~~ individual baseline, unconstrained, for both RFG and CG. ✓

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United States Department of State

Washington, D. C. 20520

INFORMATION MEMORANDUM

~~CONFIDENTIAL~~ S/S
~~SECRET~~



TO: E - Mrs. Spero

FROM: EB - Daniel K. Tisullo

SUBJECT: EPA Proposed Reformulated Gasoline Statute Poses GATT Concerns

Summary. We are concerned that proposed EPA "statutes" could leave us open to a \$ 1 billion dollar GATT damage claim. As mandated by the Clean Air Act of 1990, the EPA must issue the statutes regulating the components of reformulated (cleaner burning) gasoline. The current deadline is December 15. The statutes are now under OMB review. EPA's language would deny foreign refiners an option for meeting pollutant-content levels available to U.S. refiners. Venezuelan government owned Petroleos de Venezuela (PDVSA) argues that its exports to the U.S. market will be restricted by its inability to take advantage of this option. Should the statutes take effect, the GOV has indicated it will take the U.S. before a GATT panel.

The Venezuelan Energy Minister and President-Elect Caldera's Transition Director will be in Washington December 10 to raise this issue at senior levels of the USG. (Appointment request accompanies.) End Summary.

DISCUSSION

EPA's proposed reformulated gasoline statutes mandate that, for the 1995-1997 period, U.S. refiners hold three gasoline components (sulfur, olefins, T-90) at their individual 1990 baseline level. Foreign refiners would be required to keep these substances at the average U.S. level of 1990 -- essentially creating a different, and in some cases stricter, standard.

- EPA argues that it can neither verify the baselines of foreign owned refineries with certainty nor enforce U.S. penalties should they alter their data.
- EPA says it can verify and enforce a uniform average U.S. baseline measured at the port of entry; thus, EPA claims, a potential "double standard" is necessary for the statutes to be administered.
- U.S.- owned refineries abroad, however, would be allowed their own individual baselines.

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IS/FFC/CDR JMC Date: 10/21/94

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- Venezuela argues that, like U.S. refiners, it has the data to establish its own baseline. PDVSA admits that its olefin levels are higher than the U.S. average but points out that a U.S. refiner would be allowed to sell gasoline with similarly high olefin content. Venezuela claims that emissions from burning its reformulated gasoline would be as clean or cleaner than the U.S. average.
 - Venezuela asserts that EPA's motive has less to do with the environment than with satisfying concerns raised by U.S. refiners who want to reduce competition from Venezuela.
- The GOV's assertion is strengthened by the fact that EPA had reached a tentative agreement with Venezuela in August that met many of PDVSA's concerns. The agreement would have allowed PDVSA its own baseline for 60,000 b/d of product, with the average U.S. baseline applying to additional volumes.
 - Venezuela agreed to assume the burden of substantiating its technical data and not to challenge the statutes in the GATT.
- The American Petroleum Institute, backed by refiners Sun and Mobil, vigorously and successfully lobbied EPA to drop the draft agreement with Venezuela.
 - API argues that lax foreign environmental standards give non-U.S. refiners a cost advantage.
 - API enlisted environmental groups and regional air quality administrators who feared that Venezuela's higher olefin content would harm air quality.
- We informed API that the statutes were beyond our jurisdiction but that we did raise legitimate GATT concerns with EPA. We suggested to API that its environmental concerns would be satisfied with a uniform cap on olefin levels, that would apply to domestic and foreign product.
 - API was not receptive.
- The Society of Independent Gasoline Marketers of America, joined by Citizen Action, called on EPA to allow foreign refiners to establish their own baseline. They believe that the resulting increase in gasoline supply would increase competition and decrease retail gasoline prices.

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-3-

- If a panel is convened, and finds against the U.S., we could block adoption of the panel report, as we did when GATT ruled that U.S. prohibition of tuna imports from Mexico was GATT-illegal.
- We are the only party to have suffered a negative finding on an environmental regulation. Additional blocked reports would promote perceptions of U.S. willingness to act unilaterally in defiance of GATT. C 2

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- If the panel report should be adopted, U.S. exports to Venezuela could be subjected to duties designed to counterbalance the estimated \$ 1 billion in damages suffered by Venezuela. *or US would have to raise duties*

-- Venezuela is the second biggest market for U.S. exports in Latin America; 1992 exports were \$ 5.4 billion. (Major export categories include machine parts, automotive parts, passenger vehicles and computers).

' We are awaiting the formal OMB request for inter-agency comments on the EPA statutes.

-- In the interim, we are working with USTR and Treasury to coordinate a written response to OMB and to prepare principals for high level telephone calls to EPA, OMB and NEC.

State and Treasury oppose the proposed statute on GATT and consumer interest grounds. ~~We believe USTR will also oppose on GATT grounds.~~

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United States Department of State

Washington, D.C. 20520

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ACTION MEMORANDUM

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DEC -9 1993

EXCISE

TO: E - Mrs. Spero
FROM: EB - Daniel K. Tsculop
SUBJECT: Appointment Request: Alirio Parra, Venezuelan Energy Minister, and Julio Sosa Rodriguez, Transition Director for President-Elect Caldera.

REQUEST: Office call at Energy Minister Parra's request.

PURPOSE: Venezuela is concerned that EPA's proposed reformulated gasoline statute will violate GATT.

The Venezuelans will ask you to weigh in with EPA, OMB and the NEC in an effort to amend the statute.

OTHER APPOINTMENTS SOUGHT: Energy Secretary O'Leary
Treasury Secretary Bensten
EPA Deputy Administrator Sussman

(Note: On December 3 Parra met with NEC - Rowman Cutter, who was receptive to Parra's case. Cutter suggested interested agencies weigh in with EPA Deputy Administrator Sussman. Parra also met December 3 with Ed Casey and Dick Hecklinger.)

BACKGROUND: EPA's proposed reformulated gasoline statute will deny foreign refiners like Venezuela an option for meeting pollutant-content levels available to U.S. refiners. Energy Minister Parra and Mr Sosa, representing President-elect Caldera, believe the statute to be a violation of GATT and wish to reach a compromise with EPA before it is issued on December 15.

Mr Sosa is also likely to be named Finance Minister and the meeting would provide an important early opportunity to urge the Caldera Administration not to back away from Venezuela's current macro-economic reform program.

TIMING: Friday, December 10, for 30 minutes after 10:00 a.m.

LOCATION: Your Office.

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IS/IFRC/CDR *JMK* Date: *10/21/94*
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MEDIA: None.

PROPOSED
PARTICIPANTS: U.S.

Venezuela

Alirio Parra
Energy Minister C iJulio Sosa Rodriguez
Transition Director for
President-elect CalderaVenezuelan Ambassador
Consalvi

ED Notetaker

RECOMMENDATION

That you agree to meet Energy Minister Parra and Mr. Sosa
after 10:00 a.m. Friday, December 10, for 30 minutes.Approve ✓ DEC - 9 1993 Disapprove _____

Date

Friday, Dec. 10, 1993

Time

11:30 AM - 12 noonABA confirmed w/ drafter.
12/9/93

Attachment:

Caracas 10657 : C i

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Original

United States Department of State

Washington, D. C. 20520



BRIEFING MEMORANDUM
S/S

DEC 10 1993

EXCISE

TO: E - Mrs. Spero
FROM: EB
SUBJECT: Your Meeting with Alirio Parra, Venezuelan Energy Minister and Julio Sosa Rodriguez, President-Elect Caldera's Transition Director
Friday December 10, 1993; 11:30 AM
Your Office

I. PURPOSE

- To listen to Venezuelan Energy Minister Parra's concerns that a proposed EPA statute would discriminate against foreign gasoline refiners and therefore violate GATT.
- To impress upon Venezuela's likely Finance Minister, Sosa Rodriguez, the importance that the USG places on sustained economic reforms in Venezuela.

II. KEY POINTS

- To implement the Clean Air Act of 1990, EPA will issue statutes December 15 regulating the introduction of reformulated gasoline into the U.S. market during 1995-1997. The proposed statutes would deny foreign refiners like Venezuela an option for meeting pollutant-content levels available to U.S. refiners. (Background paper at Tab 1.)

-- Venezuela argues that the statute will restrict its exports to the U.S. If the statute is implemented the GOV will file a complaint with a GATT panel.

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IS / FCC / COA / MRC Date: *10/12/94*

MR Cases Only: EO Citations

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- Since the Venezuelans first raised the issue, we have told them that it is beyond our jurisdiction. However, State has facilitated numerous meetings between Minister Parra and senior Administration officials: (EPA - Deputy Administrator Sussman, NEC - Bo Cutter, DOE - Secretary O'Leary, Treasury - U/S Summers).
- The Venezuelans reached a tentative agreement with EPA in August, but it fell victim to intense opposition by U.S. refiners.
- Although Venezuela offers U.S. companies no access to its downstream (retail) fuels sector, Parra should be commended for progress in opening Venezuela's upstream energy sector to foreign investment, a sea change since nationalization in 1976. Three projects are particularly noteworthy:
 - The \$ 5.6 billion Cristobal Colon liquified natural gas project (Exxon, Shell and Mitsubishi with PDVSA), approved by the GOV this year;
 - Conoco's participation in a 2 billion dollar project to produce heavy oil in Venezuela and upgrade it at Conoco refineries in Texas; and
 - PDVSA's award of 16 service contracts, in two rounds, to private oil companies (5 American) to reactivate shut-in oil fields.

ECONOMIC REFORM

- Caldera came out against Perez Administration reforms, which he says benefit the rich at the expense of the working class.
 - Perez unified the exchange rate, liberalized trade, privatized state-owned enterprises, removed price controls, slashed subsidies, and opened the energy sector, at the margins, to foreign investment.

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TALKING POINTS

In Response to Parra's Demarche on Reformulated Gasoline:

- We have been giving this issue careful study since your government first raised it many months ago. While we do not have jurisdiction over this issue, we have made every effort to facilitate your meetings with senior Administration officials so as to assure you the opportunity to make Venezuela's case.

-- We are pleased that you have come to Washington to meet with your counterparts in the Clinton Administration. There is no substitute for personal dialogue.

As you can appreciate from your own experience as Energy Minister of a major oil producing country, energy regulation is extremely complex.

I am happy to relay your concerns to the EPA, and to urge them to take another look at this issue.

ECONOMIC REFORMTo raise with *Sosa Rodriguez*:

We congratulate President-Elect Caldera on his December 5 election victory and look forward to working closely with you and the new team.

We hope the new government will find ways to provide for Venezuela's social needs while maintaining a strong economic and investment climate.

We note, however, that President-elect Caldera campaigned against the economic reforms of the Perez Administration.

-- He promised to repeal the VAT, maintain gasoline subsidies, review the pending cases of privatization and seek to renegotiate the foreign debt.

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United States Department of State

Washington, D.C. 20520



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EXCISE

Background Paper

EPA's Proposed Reformulated Gasoline Statute

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Summary.

As mandated by the Clean Air Act of 1990, the EPA must issue the statutes regulating the components of reformulated (cleaner burning) gasoline. The current deadline is December 15. The statutes are now under OMB review, where we have voiced our opposition. EPA's language would deny foreign refiners an option for meeting pollutant-content levels available to U.S. refiners. Venezuelan government owned Petroleos de Venezuela (PDVSA) argues that its exports to the U.S. market will be restricted by its inability to take advantage of this option. Should the statutes take effect, the GOV has indicated it will take the U.S. before a GATT panel.

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The Venezuelan Energy Minister and President-Elect Caldera's Transition Director will be in Washington December 10 to raise this issue at senior levels of the USG. (Briefing Memo accompanies.) End Summary.

DISCUSSION

EPA's proposed reformulated gasoline statutes mandate that, for the 1995-1997 period, U.S. refiners hold three gasoline components (sulfur, olefins, T-90) at their individual 1990 baseline level. Foreign refiners would be required to keep these substances at the average U.S. level of 1990 -- essentially creating a different, and in some cases stricter, standard.

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- U.S.- owned refineries abroad, however, would be allowed their own individual baselines.
- Venezuela argues that, like U.S. refiners, it has the data to establish its own baseline. PDVSA admits that its olefin levels are higher than the U.S. average but points out that a U.S. refiner would be allowed to sell gasoline with similarly high olefin content. Venezuela claims that emissions from burning its reformulated gasoline would be as clean or cleaner than the U.S. average.
- Venezuela asserts that EPA's motive has less to do with the environment than with satisfying concerns raised by U.S. refiners who want to reduce competition from Venezuela.

c/

- Venezuela agreed to assume the burden of substantiating its technical data and not to challenge the statutes in the GATT.
- The American Petroleum Institute, backed by refiners Sun and Mobil, vigorously and successfully lobbied EPA to drop the draft agreement with Venezuela.
- API argues that lax foreign environmental standards give non-U.S. refiners a cost advantage.
- API enlisted environmental groups and regional air quality administrators who feared that Venezuela's higher olefin content would harm air quality.
- We informed API that the statutes were beyond our jurisdiction but that we did raise legitimate GATT concerns with EPA. We suggested to API that its environmental concerns would be satisfied with a uniform cap on olefin levels, that would apply to domestic and foreign product.
- API was not receptive.
- The Society of Independent Gasoline Marketers of America, joined by Citizen Action, called on EPA to allow foreign refiners to establish their own baseline. They believe that the resulting increase in gasoline supply would increase competition and decrease retail gasoline prices.

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- If the panel report should be adopted, U.S. exports to Venezuela could be subjected to duties designed to counterbalance the estimated \$ 1 billion in damages suffered by Venezuela.
- Venezuela is the second biggest market for U.S. exports in Latin America; 1992 exports were \$ 5.4 billion. (Major export categories include machine parts, automotive parts, passenger vehicles and computers).
- State oppose the proposed statute on GATT and consumer interest grounds. C/
- We have made OMB aware of our concerns. Given the short time-frame, C/ OMB is not likely to put the rerormulated statutes out to formal inter-agency clearance.

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12/13/93

United States Department of State

Washington, D. C. 20520



INFORMATION MEMORANDUM
S/S



TO: The Secretary
THROUGH: P - Mr. Tarnoff
FROM: ARA - Alexander F. Watson
SUBJECT: Venezuelan Concerns Regarding EPA Regulations for Reformulated Gasoline

To implement the Clean Air Act of 1990, the EPA will issue statutes on December 15 regulating the import of reformulated gasoline during 1995-97. These statutes would provide different treatment for U.S. and foreign suppliers. The Venezuelans have expressed concerns regarding the statutes on the grounds that they violate GATT Article III, which calls for non-discriminatory treatment of imported products.

ARA and EB are concerned about the EPA regulations for a variety of reasons: If Venezuela takes the EPA ruling to the GATT and the GATT rules against the U.S., U.S. exports could be subjected to duties designed to counterbalance the estimated \$1 billion in damages suffered by Venezuela.

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the EPA regulations go against our whole posture vis-a-vis trade for the entire hemisphere. As we argue for free trade in the hemisphere, we would be a protectionist action with important economic consequences for a leading Latin American country.

Last Week the GOV presented a compromise solution to the EPA. The Venezuelans would reduce total emissions to the average U.S. level for reformulated gasoline in return for greater flexibility on the measurement of olefins (the most serious problem for Venezuela's reformulated gasoline). In view of Venezuela's concerns and last week's proposal, I recommended that U/S Spero call the EPA and encourage the EPA to treat foreign refiners equally, but if not, to give the Venezuelan proposal serious consideration. I also recommend that U/S Spero call the NEC and OMB and suggest that they urge the EPA to support equal treatment or a compromise solution.

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PAGE 01 CARACA 11032 1321422

ACTION ARA-01

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L-03	AJS-00	NSAE-00	NSCE-00	OMB-01	OPIC-08	PA-01
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E.O. 12356: OEQI OADR

TAGS: PREL, ETRD, VE

SUBJECT: NEED FOR CONTINGENCY GUIDANCE: REFORMULATED

GASOLINE

1. ~~CONFIDENTIAL~~ - ENTIRE TEXT.

2. SUMMARY: THIS IS AN ACTION CABLE. SEE PARA 5. POSSIBLE ISSUANCE ON DECEMBER 15 OF REGULATIONS PROHIBITING IMPORTATION INTO US OF VENEZUELAN REFORMULATED GASOLINE FROM 1995 TO 1997 IS DEVELOPING INTO A MAJOR BILATERAL ISSUE. POST NEEDS EFFECTIVE PUBLIC AFFAIRS GUIDANCE TO LIMIT DAMAGE. END SUMMARY.

3. VENEZUELAN PRESS AND GOVERNMENT ARE WORKING THEMSELVES

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PAGE 02 CARACA 11032 1321422

INTO FEVER PITCH ABOUT THE EXPECTED DECEMBER 15 ISSUANCE OF EPA REGULATIONS ON REFORMULATED GASOLINE. ISSUE IS BEING PORTRAYED HERE AS A PROTECTIONIST EFFORT BY U.S. OIL COMPANIES UTILIZING ENVIRONMENTAL ORGANIZATIONS. NORMALLY CAUTIOUS GUSTAVO ROJSEN, HEAD OF PDVSA, HAS LABELLED IT THE FIRST LINK IN A CHAIN OF ANTI-VENEZUELAN OIL PROTECTIONISM. PRESIDENT-ELECT CALDERA'S DISPATCH OF ECONOMIC HEAVYWEIGHT JULIO SOSA TO US TO ARGUE VENEZUELA'S CASE ALONGSIDE MINENERGY PARRA OF CURRENT GOVERNMENT IS A SURE SIGN THAT NEXT ADMINISTRATION WILL MAKE THE REFORMULATED CASE ISSUE A LITMUS TEST OF U.S. TRADE INTENTIONS. PRESIDENT VELASQUEZ RAISED THE ISSUE IN PRIVATE CONVERSATION WITH AMBASSADOR DECEMBER 12.

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EXCISE

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 NSC FOR FEINBERG

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PAGE 02 CARACA 11059 141832Z

DOE FOR PUMPHREY

E.O. 12356: DECL: OADR

TAGS: ECCN, EFIN, EPET, ENPG, PREL, ETRO, VE

SUBJECT: CALDERA ADVISOR TALKS OF TRIP TO U.S., ECONOMIC PLANS

1. C - ENTIRE TEXT.

2. AMBASSADOR MET WITH CALDERA'S SENIOR ADVISOR JULIO SOSA ON DECEMBER 13 TO DISCUSS HIS VISIT TO WASHINGTON THE PREVIOUS WEEK TO LOBBY AGAINST EPA REFORMULATED GAS REGULATIONS THAT COULD SERIOUSLY HARM VENEZUELA. SOSA SAID THAT

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PAGE 03

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5. THE BULK OF THE CONVERSATION WITH SOSA CONSISTED OF A REPETITION OF THE ARGUMENTS HE MADE IN THE U.S. IN OPPOSITION TO PROPOSED EPA REGULATIONS WHICH WOULD CLEARLY PREJUDICE VENEZUELA. SOSA ARGUED THAT

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DAVIDOR

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United States Department of State

Assistant Secretary of State
Bureau of Inter-American Affairs

Washington, D.C. 20520-6258

December 15, 1993

MEMORANDUM

TO: E - Ms. Spero
FROM: Alexander F. Watson *AW*
SUBJECT: Venezuelan Reformulated Gasoline

Based on last night's meeting in Bo Cutter's office, I propose to convey the following message to Venezuelan Petroleum Minister Alirio Parra when notified by Carol Browner that I may do so:

"We understand that you have made interesting offers to the EPA in your meetings with them this week on the reformulated gasoline issue. As you are aware, we are under a court order to promulgate the rule. It absolutely must be issued by midnight tonight. There is simply not time to resolve the reformulated gasoline issue before then. EPA Administrator Browner will be signing today a rule that reflects the original negotiated rule-making agreement.

The Department of State has weighed in heavily with EPA, however, on behalf of Venezuela. EPA has assured us it will be willing to continue talking to you on the basis of your most recent offers in an effort to arrive at a solution that meets environmental standards and addresses your specific concerns.

If this is okay with you and your colleagues, I would propose to convey this statement to Ambassador Davidow in Caracas so that he may make the same presentation to President-elect Caldera to avoid inappropriate reaction from that key quarter.

EXCISE

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be answered by the week of february 26 and indicated that they would soon propose a date for a second round of gatt consultations to be held in Caracas before March 14. end summary

2. Article XXII:1 Consultations on the u.s. reformulated gasoline regulations were held between the United States Government and the Government of Venezuela on February 11 at the offices of the United States Trade Representative in Washington. the gov delegation was chaired by mauro hoyer, executive assistant to the minister of energy and mines, and included juan francisco misle, gov geneva mission; clara coro, ministry of energy and mines; maria estela bermudez, institute of foreign trade; miguel salerno and otto rodriguez of petroleos de venezuela and venezuelan embassy representatives victor cedeno, maria sanglade and carlos rossi. the u.s. delegation was chaired by daniel brinza, ustr office of general counsel and included ustr officers sandy gaines, ralph ives, karen lezny, epa attorneys john hannon and Fielding Lamason and state officers perry ball (ara/and) and matthew mcmanus (eb/iep).

3. The Venezuelan delegation opened the meeting by expressing appreciation that the us delegation was able to host the meeting despite the closing of the federal government due to a snow emergency. mauro hoyer then argued that

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(comment:
 some Canadian, but no venezuelan, refineries will likely
 qualify under this provision. end comment)

 article xi

6.

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 Economic Impact

7.

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 GATT Questions

8. US Delegation chair Daniel Brinza thanked Hoyer for his remarks and for agreeing to meet in Washington. He asked the Venezuelan delegation about their basis for citing the least trade restrictive principle and inquired if they were referring to the existing gatt or the new gatt. venezuela responded that

. brinza responded that this broad interpretation of gatt is not shared by the usg.

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9. Brinza then questioned venezuela's invoking of both article XI (import-restrictions) and article III (national-treatment) noting that in past gatt jurisprudence either article XI or article III were cited, but not both. The Gov responded that ,

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10. brinza asked the venezuelans to elaborate on their claim that the gasoline rule would cause them economic harm.

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11. brinza asked if venezuela was referring to paragraphs sections a, b or c of nullification and impairment under article xxiii:1. misle replied that --

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12. brinza emphasized that the usg believes the gasoline rule is gatt consistent. brinza then offered an explanation of the u.s. regulatory process. he explained that, to change a rule like the one in question, the usg would first have to publish a notice in the federal register, solicit and respond to public comment, with requisite waiting periods, and then issue the new rule. Brinza added that the usg is open to pursuing technical discussions with venezuela on the subject and pledged that usg officials would be available to discuss any technical concerns that venezuela might have. brinza stressed however that, were the usg to explore an alternate rule, it would have to be fully consistent with clean air act environmental aims and requirements.

13. mauro hoyer responded that

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14. brinza reiterated that the usg does not believe the gasoline rule to be gatt inconsistent. he endorsed the continuation of technical talks together with a willingness to continue formal consultations and recognized that venezuela has an interest in a timely resolution of the process and indicated that we would shortly refer the issue to the decision making layer of the usg.

15. hoyer concluded venezuela's comments by presenting the u.s. delegation with

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 E-01 FR3-01 HA-09 H-01 TEDE-00 INR-00 IO-16
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PAGE 02 CARACAS 01395 182221Z
 E.O. 12356: N/A
 TAGS: EPET, ENRG, OPEC, VE
 SUBJECT: NEW VENEZUELAN ENERGY MINISTER CALLS FOR
 "PRODUCER-CONSUMER FORUM"

1. IN REMARKS TO THE PETROLEUM PRESS ON FEBRUARY 17, THE NEW VENEZUELAN MINISTER OF ENERGY AND MINES, ERWIN ARRIETA, APPEARED TO CALL FOR ANOTHER TYPE OF PRODUCER-CONSUMER DIALOGUE. ARRIETA SAID HE PLANNED TO PROPOSE, AT THE NEXT OPEC MINISTERIAL IN VIENNA IN MARCH, THAT OPEC SEEK TO ESTABLISH A PERMANENT FORUM CONSISTING OF OIL PRODUCERS AND CONSUMERS IN ORDER TO DISCUSS PRODUCTION AND MARKETING STRATEGIES. IF THE TWO SIDES COULD REACH AGREEMENT ON MONITORING AND ADJUSTMENT OF PETROLEUM VOLUMES AND PRICES, SAID ARRIETA, BOTH WOULD BENEFIT. ARRIETA ADDED THAT HE ENVISIONED A SORT OF "UNITED NATIONS OF ENERGY" WHICH HE BELIEVED WOULD BE POSSIBLE TO ORGANIZE AND OPERATE.

2. COMMENT:

DEPARTMENT OF STATE	IS/FFC/ICR	Date	10/
() RELEASE	() DECLASSIFIED	CLASSIFIED BY	TS 3127/20
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() EXEMPT FROM AUTOMATIC DOWNGRADING AND DECLASSIFICATION	() EXEMPT FROM AUTOMATIC DOWNGRADING AND DECLASSIFICATION	EXEMPTION CODE	() S or () C UADR
() EXEMPT FROM AUTOMATIC DOWNGRADING AND DECLASSIFICATION	() EXEMPT FROM AUTOMATIC DOWNGRADING AND DECLASSIFICATION	EXEMPTION CODE	() S or () C UADR
() EXEMPT FROM AUTOMATIC DOWNGRADING AND DECLASSIFICATION	() EXEMPT FROM AUTOMATIC DOWNGRADING AND DECLASSIFICATION	EXEMPTION CODE	() S or () C UADR

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~~EXEMPTED OFFICIAL USE~~

PAGE 1

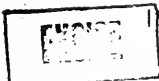
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INCOMING

DEPARTMENT OF STATE
ARA/NEA REARCS



PAGE 01 CARACA 07129 00 OF 07 161742Z 000004 509722Z

INFO: DAND 021 VE 021 EAC 071 RZ 071 PDAS 071 RJC 071 ARA 071
 PFC 071 DECP 071 ECP 071 GAS 071 PPA 071 SCO 071

----- 16/18JAZ AZ LR (TOTAL COPIES: 015)

ACTION EB-00

INFO LOG-00 ACDA-17 ACDE-00 AGRF-00 AIO-00 ARA-00 CEA-01
 CEO-00 CINE-00 CIME-00 C-01 DASTY-00 DINT-01 DODE-00
 ERIM-01 E-01 FRO-01 HA-03 H-01 TEUR-00 IRI-00
 IO-16 ITC-01 L-00 L-00 HOS-00 HSE-00 ICS-03
 OIC-07 OOD-01 OPLC-01 PA-01 PH-00 PPS-01 P-01
 SFP-00 SP-00 SS-00 SIE-01 TISE-00 1-00 USIE-00
 EPAC-00 PNB-00 /073V

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-----JIM033 161746Z /3A

O 161742Z MAR 84
 FM AMEMBASSY CARACAS
 TO SECRETARY WASHDC IMMEDIATE 6435
 WITNESS/DOE WASHDC IMMEDIATE
 INFO USDOE WASHDC
 DOE WASHDC
 USMISSION GENEVA
 [REDACTED] CARACAS 07129

... HOWEVER, THE AMBASSADOR REPLIED THAT THE
 COMPROMISE WOULD NOT BAR ADDITIONAL VENEZUELAN EXPORTS
 OF REFORMULATED GASOLINE BEYOND 1980 LEVELS, BUT WOULD
 REQUIRE THAT THESE ADDITIONAL EXPORTS MEET THE STATUTORY
 BASELINE.

C2

C2

STATE PLS PASS VSTR

STATE PLS PASS EPA

WHITE HOUSE FOR HSC ASD/DOC FOR 3134/WSCS/010/04/M/14/1
 4331/IEP/M/US/AR/DUCE AND ZIEGER

DOE FOR POWHREY

GENEVA FOR WSTR

E.O. 12356: DECS: OADR
 TAGS: EPEI, ENMG, ETED, GATT, PDEL, VE
 SUBJECT: AMBASSADOR MEETS WITH ENERGY AND FOREIGN TRADE
 MINISTERS ON REFORMULATED GASOLINE

REF: AJ STATE 064832 BY CARACAS 071998 AND PREVIOUS

1. C - ENTIRE TEXT.

2. SUMMARY. IN A POSITIVE MEETING ON MARCH 15,
 AMBASSADOR TOLD THE VENEZUELAN ENERGY AND MINES AND
 FOREIGN TRADE MINISTERS THE U.S. IS WILLING TO MODIFY
 ITS RULE ON REFORMULATED GASOLINE CONSISTENT WITH WHAT
 WAS DISCUSSED BY EPA AND GOV OFFICIALS LAST SEPTEMBER.
 AMBASSADOR STRESSED THIS IS OUR FINAL OFFER AND SAID
 VENEZUELA MUST AGREE TO WITHDRAW ITS REQUEST FOR A GATT
 PANEL.

END

SUMMARY.

3. AMBASSADOR MET JOINTLY WITH MINISTER OF ENERGY AND
 MINES AND FOREIGN TRADE MINISTER POULETTE THE
 EVENING OF MARCH 15 TO DISCUSS THE REFORMULATED GASOLINE
 DISPUTE. ALSO PRESENT WERE DEPUTY ENERGY MINISTER
 FREDDY ALVAREZ AND EMBASSY PETROLEUM OFFICER.

DAVIDON

AMBASSADOR DELIVERED POINTS AS PER REF 2. HE STATED
 THAT THE USG HAD MADE A POLITICAL-LEVEL DECISION TO
 MODIFY THE REFORMULER IS EPA RULE SO THAT IT WAS
 CONSISTENT WITH THE IDEAS DISCUSSED BY VENEZUELAN AND
 EPA OFFICIALS LAST SEPTEMBER.

DEPARTMENT OF STATE
 REFERENCE: 10/1/84/14
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PRINTER: HG

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EXCISE

PAGE 01 CARACA 02234 01 GF 03 182046Z

ACTION EB-01							
INFO LOS-00	ACCA-01	ACOE-00	AGRE-00	AID-01	ARA-01	CEA-01	
CEQ-00	CIAS-00	CTRE-00	C-01	OASY-00	DINT-01	OOOE-03	
EXIM-01	E-01	FRM-01	HA-09	H-01	TEDE-00	IHR-00	
IO-16	ITC-01	LAS-01	L-01	ADS-00	NSAE-00	OES-00	
OIC-02	OMs-01	OPIC-01	PA-01	PM-01	PRS-01	P-01	
SNP-00	SP-00	SS-00	STR-01	TRSE-00	T-00	USIE-00	
EPAE-00	P46-00		/0734				

-----31E28E 182048Z /38

Q 182045Z MAR 94
 FM AMEMBASSY CARACAS
 TO SECSTATE WASHDC IMMEDIATE 6925
 WHITEHOUSE WASHDC IMMEDIATE
 INFO USDOC WASHDC
 DOE WASHDC
 USMISSION GENEVA
 C O N F I D E N T I A L SECTION 01 OF 03 CAFACAS 02234
 STATE PLEASE PASS USTA FOR IVES
 STATE PLEASE PASS EPA FOR MARY SMITH
 WHITEHOUSE FOR NSC AND NEC
 USDOC FOR 3134/JSPCS/OIO/D/WH/TAFI
 4331/IEP/WH/JSA BRUCE AND ZIEGER
 DOE FOR PUMPHREY
 GENEVA FOR USTR

~~CONFIDENTIAL~~
~~CONFIDENTIAL~~

PAGE 02 CARACA 02234 01 GF 03 182046Z

E.O. 12350: DECL: OADR
 TAGS: EPET, ENRG, ETRD, GATT, PREL, VE
 SUBJECT: REFORMULATED GASOLINE
 REF: A) STATE 066832; B) CARACAS 02129
 1. CONFIDENTIAL - ENTIRE TEXT.
 2. SUMMARY: THIS CABLE REQUESTS WASHINGTON ACTION. THE
 GOV HAS NOW COME BACK WITH A RESPONSE TO THE OFFER WE
 PRESENTED TO THEM ON MARCH 15. THE GOV SEEKS A WRITTEN
 PRESENTATION OF OUR PROPOSAL. WE SUGGEST THAT WE
 NEGOTIATE A SIMULTANEOUS EXCHANGE OF LETTERS THAT WOULD
 CONFIRM OUR OFFER IN RETURN FOR A WRITTEN COMMITMENT ON
 THEIR PART TO WITHDRAW THE ARTICLE 23 PETITION AND ACCEPT
 OUR PROPOSAL. THE LETTERS WOULD BECOME OFFICIAL ONLY UPON
 MUTUAL ACCEPTANCE OF THE TEXTS.

IN THIS CABLE WE SUGGEST

A PLAN OF ACTION WHICH WE THINK PROVIDES OPPORTUNITY FOR
 RESOLVING THIS ISSUE ON OUR TERMS. IMMEDIATE WASHINGTON
 ACTION IS REQUESTED. END SUMMARY.
 3. AMBASSADOR SPOKE SEPARATELY EVENING MARCH 17 WITH
 MINENERGY ARRIETA AND MINFOREIGN TRADE POLLETO, THE TWO
 OFFICIALS TO WHOM WE HAD PRESENTED OUR PROPOSAL ON

~~CONFIDENTIAL~~
~~CONFIDENTIAL~~

DEPARTMENT OF STATE

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MR. CASEY ONLY:
 EO Citations

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TS authority to:

IS/Freq/CDR *CHK* date *10/25/94*

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94 CARACAS 2234

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GASOLINE EVENING OF MARCH 15. BOTH HAD SPENT ENTIRE DAY IN CABINET MEETINGS AND ARRIETA HAS BEEN CONSUMED WITH SELECTION OF NEW PDVSA BOARD AND PRESIDENT WHICH WILL BE ANNOUNCED IN THE NEXT FEW DAYS. ALSO DELAYING THEIR RESPONSE WAS THE NECESSITY FOR THESE TWO NEW MINISTERS.

PAGE 03 CARACA 02234 01 CF 03 182046Z
WHO ARE UNFAMILIAR WITH THE NEGOTIATING HISTORY, TO CONSULT WITH TECHNICAL EXPERTS IN THEIR MINISTRIES AND PDVSA.

C2

4. THE FOLLOWING IS A DISTILLATION OF THE GOV'S RESPONSE AS PRESENTED BY THE TWO MINISTERS.

C2

6. PLAN OF ACTION.

C2

~~UNCLASSIFIED~~

PAGE 2

94 CARACAS 2234

10/25/94 090255 PRINTER: HG

~~CONFIDENTIAL~~~~CONFIDENTIAL~~

PAGE 01 CARACA 02234 02 OF 03 182047Z

ACTION ER-01

INFO	LOG-00	ACDA-17	ACDE-00	AGRE-00	AID-01	ARA-01	CEA-01
	CEQ-00	CIAE-00	CTME-00	C-01	DASY-00	DINT-01	DDDE-00
	FXIN-01	E-01	FR3-01	HA-09	H-01	TEDE-00	INR-00
	IO-16	LTC-01	LAB-01	L-01	AUS-00	NSAE-00	OES-00
	OIC-02	OM-01	OPIC-01	PA-01	PM-01	PRS-01	P-01
	SNP-00	SP-00	SS-00	STR-01	TRSE-00	T-00	USIE-00
	EPAE-00	PAS-00	/073W				

-----31E2A1 182049Z /38

O 122045Z MAR 94

FM AMEMBASSY CARACAS

TO SECSTATE WASHDC IMMEDIATE 6926

WHITEHOUSE WASHDC IMMEDIATE

INFO USDOC WASHDC

OGE WASHDC

USMISSION GENEVA

~~CONFIDENTIAL~~ SECTION 02 OF 03 CARACAS 02234

STATE PLEASE PASS JSTR FOR IVES

STATE PLEASE PASS EPA FOR MARY SMITH

WHITEHOUSE FOR NSC AND NEC

USDOC FOR 3134/USFCS/OLO/D/WH/TAFT

4331/IEP/WH/JSA BRUCE AND ZIEGER

OGE FOR PUMPHREY

GENEVA FOR USTR

CONFIDENTIAL

CONFIDENTIAL

PAGE 02 CARACA 02234 02 OF 03 182047Z

E.O. 12355: DECL: OADR

TAGS: EPET, ENRG, ETRO, GATT, PKEL, VE

SUBJECT: RECIRCULATED GASJLINE

C2

~~CONFIDENTIAL~~

PAGE 4

94 CARACAS 2234

10/25/94 090255 PRINTER: HG

~~CONFIDENTIAL~~~~CONFIDENTIAL~~

PAGE 01 CARACA 02234 03 OF 03 182048Z

ACTION EB-01

INFO	LOG-00	ACDA-17	ACOE-00	AGRE-00	AID-01	ARA-01	CEA-01
	CEQ-00	CIAC-00	CTME-00	C-01	OASY-00	DINT-01	OOOE-00
	EXIN-01	E-01	FRS-01	HA-09	H-01	TEDE-00	INR-00
	IG-16	ITC-01	LAB-01	L-01	ADS-00	NSAE-00	OES-09
	OIC-02	OMB-01	OPIC-01	PA-01	PM-01	PRS-01	P-01
	SNP-00	SP-00	SS-00	STR-01	TRSE-00	T-00	USIE-00
	EPAC-00	PMB-00	/073W				

-----31E2AD 182048Z /38

O 182045Z MAR 94

FM AMEMBASSY CARACAS

TO SECSTATE WASHDC IMMEDIATE 6927

WHITEHOUSE WASHDC IMMEDIATE

INFO USDOC WASHDC

OGE WASHDC

USMISSION GENEVA

~~CONFIDENTIAL~~ SECTION 03 OF 03 CARACAS 02234

STATE PLEASE PASS USTR FOR IVES

STATE PLEASE PASS EPA FOR MARY SMITH

WHITEHOUSE FOR NSC AND NEC

USDOC FOR 3134/USFCS/DIO/D/WH/TAFT

4331/IEP/WH/JSA BRUCE AND ZIEGLER

OGE FOR PUMPHREY

GENEVA FOR USTR

~~CONFIDENTIAL~~~~CONFIDENTIAL~~

PAGE 02 CARACA 02234 03 OF 03 182048Z

E.O. 12356: O-CL: OADR

TAGS: EPET, ENRG, ETRD, GATT, PREL, VE

SUBJECT: REFORMULATED GASOLINE

C2

DAVIDSON

~~CONFIDENTIAL~~

PAGE 6

IMMEDIATE

CONFIDENTIAL
DEPARTMENT OF STATE
ARA/NEA REARCS

INCOMING

PAGE 01 OF 02 CARACA 07252 00 OF 03 2117507 011603 5061719
INFO: ARA(01) PPC(01) DCP(01) ECP(01) OAS(01) PPA(01)
EAC(01) SCD(01) DAND(07) VET(01) RJ(01) PDAS(01) RJC(01)
RV(01)

CARACA 07252 00 OF 03 2117507 011603 5061719
WITH FOREIGN TRADE MINISTER POLETO ON MARCH 19 TO
DISCUSS REFORMULATED GASOLINE. POLETO WAS ACCOMPANIED
BY TWO ADRES FROM THE FOREIGN TRADE MINISTRY AND AN
ADVISEE FROM THE FOREIGN MINISTRY. AMBASSADOR MADE HIS
PROPOSAL TO POLETO OF A SIMULTANEOUS EXCHANGE OF
LETTERS IN WHICH THE U.S. SIDE PRESENTED ITS PROPOSAL TO
THE GOV. AND THE GOV AGREED TO THE PROPOSAL AND TO DROP
ITS REQUEST FOR A GATT PANEL. HE LEFT POLETO WITH
INFORMAL DRAFTS OF BOTH THE U.S. AND VENEZUELAN LETTERS.

ACTION EO-00 71/15722 A1 00 (TOTAL COPIES: 016)
INFO LOC-00 ACDA-17 ACDC-00 ACRI-00 AIO-00 ARA-00 CEA-01
CEO-00 CIAE-00 CTRF-00 C-01 OASV-00 DINT-01 DODG-00
EATR-01 E-01 FRR-01 NA-09 H-01 IEDG-00 IHR-00
IO-16 ITC-01 LAR-01 L-00 ADS-00 ASAL-00 DES-00
DLC-00 DND-01 DPIC-01 PA-01 PM-00 PUS-01 P-01
SPT-00 SP-00 SS-00 STR-01 TASE-00 T-00 USIE-00
EPAC-00 PWD-00/07JM37607C 7111000 /30

D 211251Z MAR 84
FM AMEMBASSY CARACAS
TO SECSTATE WASHDC IMMEDIATE 0546
INFO WHITERHOUSE WASHDC IMMEDIATE
WSDOC WASHDC
DOE WASHDC
USMISSION GENEVA PRIORITY
CARACAS 07252
STATE PLS PASS EPA
STATE PLS PASS USTR FOR IVES
WSDOC FOR 313/WDFCS/010/D/WM/AF1
0331/IEP/WI/OSA/BRUCE AND ZELGER
DOE FOR PUPPKET
GENEVA FOR USTR

E.O. 12356: OADR
TAGS: EPCI, ENRG, ETRD, PREL, GATT, VE
SUBJECT: AMBASSADOR MEETS WITH FOREIGN TRADE MINISTER
ON REFORMULATED GASOLINE

- 1. C - ENTIRE TEXT.
- 2. SUMMARY. THIS IS AN ACTION REQUEST. PLEASE SEE PARAGRAPH 12. AMBASSADOR MET WITH FOREIGN TRADE MINISTER POLETO ON MARCH 19 TO DISCUSS REFORMULATED GASOLINE. AMBASSADOR PRESENTED HIS PROPOSAL OF AN EXCHANGE OF NOTES IN WHICH THE U.S. WOULD OUTFIT THE 135 OFFER AND THE VENEZUELAN INDICATE THEIR ACCEPTANCE OF THAT OFFER AND THEIR WITHDRAWAL OF A REQUEST FOR A GATT PANEL. AMBASSADOR LEFT POLETO WITH INFORMAL DRAFTS OF BOTH THE U.S. AND VENEZUELAN LETTERS.

11
CLASSIFIED
EXCEPT WHERE SHOWN
OTHERWISE
ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 08-20-2013 BY 60322/UC/STP/STP
13 - Monthly for
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18 of 18

C2

C2

- 3. END SUMMARY.
- 4. AMBASSADOR, ACCOMPANIED BY PETROLEUM OFFICER, MET

~~CONFIDENTIAL~~

IMMEDIATE

~~CONFIDENTIAL~~

INCOMING

DEPARTMENT OF STATE
ARA/NEA REARCS

PAGE 02 OF 02 CARACA 07252 00 OF 03 2112542 011683

5061215

CARACA 07252 00 OF 03 2112542 011683

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CL

THE AMBASSADOR PROMISED TO FORWARD THE VENEZUELAN OFFER TO WASHINGTON AND TO TRY TO GIVE POLETTO AN OFFICIAL RESPONSE BEFORE THE END OF THE DAY ON MONDAY, MARCH 21. POLETTO IS DEPARTING FOR INDIA ON THE MORNING OF MARCH 21. IN RESPONSE TO A QUESTION BY THE AMBASSADOR, AN AIDE TO POLETTO SAID THE GOV COULD, IF AN AGREEMENT WERE REACHED, WITHDRAW ITS

REQUEST FOR A GATT PANEL DURING THE MARCH 23 GATE COUNCIL MEETING.

13. ACTION REQUEST AND COMMENT: PLEASE PROVIDE US WITH A REPLY TO THE GOV OFFER, IN TIME FOR EMBASSY TO DELIVER THE RESPONSE TO THE GOV BEFORE THE END OF THE DAY ON MONDAY, MARCH 21. IF THERE IS ANY FLEXIBILITY IN THE U.S. OFFER, OR IF THE GOV DECIDES, ONCE ITS OFFER HAS BEEN FORMALLY REJECTED, TO ACCEPT OUR ORIGINAL PROPOSAL, WE WOULD THEN STILL HAVE ENOUGH TIME TO EXCHANGE NOTES WITH THE GOV AND GET THE VENEZUELAN TO WITHDRAW THEIR REQUEST FOR A GATT PANEL ON MARCH 23.

DAVIDOV

~~CONFIDENTIAL~~

3/11/94

~~(S)~~ Inter-agency Meeting on Venezuelan Reformulated Gasoline:
 U/S Spero and _____ will be attending a March 14 inter-agency meeting at the NEC to try and resolve the U.S.-Venezuelan reformulated gasoline (RFG) dispute.

C1

EXCISE

C1

~~(S)~~ Ambassador Davidow Comments on Reformulated Gasoline:
 Ambassador Davidow sent a first person cable to U/S Spero highlighting the importance of what is at stake with the upcoming decision on reformulated gasoline.

C2

DEPARTMENT OF STATE		IS/FPC/COR <u>7918</u> Date <u>10/22/94</u>
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FORM Exemptions <u>C1, C2(4)</u>		<input type="checkbox"/> CLASSIFY as <input type="checkbox"/> S or <input type="checkbox"/> C UADR
RA Exemptions _____		<input type="checkbox"/> DOWNGRADE TS to <input type="checkbox"/> S or <input type="checkbox"/> C UADR

3/10/94

Decision Due on Reformulated Gasoline: State (U/S Spero), USTR and EPA will participate in a NEC meeting on March 14 to try and resolve the reformulated gasoline (RFG) dispute with Venezuela.

EXCISE

DEPARTMENT OF STATE IS/EPC/CDR YMC Date 10/22/94

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Exemptions _____		() DOWNGRADE TS to () S or () C OADR

3/2/94

~~Update on Reformulated Gasoline:~~ EPA has completed the preparation of its options memo for the resolution of the reformulated gasoline dispute and this memo will be presented to EPA Administrator Carol Browner early next week. The NEC has also called for an inter-agency meeting to discuss the issue at 1:30 PM on March 14.

Elsewhere, the GOV has asked USTR for a second round of GATT consultations to take place in Caracas on March 8. USTR is preparing a response recommending a later date (after the March 14 meeting). If the dispute is not resolved at the March 14 meeting, the GOV is expected to take the U.S. to a GATT panel at the end of the 60-day Article XXII consultation period which ends on March 13.

EXCISE

DEPARTMENT OF STATE		IS/EPC/CDR <i>mk</i> Date: <i>10/22/74</i>
<input type="checkbox"/> UNCLASSIFIED	<input checked="" type="checkbox"/> DECLASSIFY	MR Cases Only:
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<input type="checkbox"/> DELETE Non-Responsive Info		TS authority to:
FOIA Exemptions <i>C1</i>		<input type="checkbox"/> CLASSIFY as <input type="checkbox"/> S or <input type="checkbox"/> C OADR
PA Exemptions _____		<input type="checkbox"/> DOWNGRADE TS to <input type="checkbox"/> S or <input type="checkbox"/> C OADR

UNCLASSIFIED

2/23/94

~~(S)~~ Interagency Discussion of EPA Options Memo: State (ARA/AND and EB/IEP), USTR and EPA representatives met on February 23 to discuss the first draft of an EPA options memo for the resolution of the reformulated gasoline dispute with Venezuela. The memo's four options include: retaining the EPA's December 15, 1994 final rule; returning to the already negotiated "September Compromise"; adopting the recently discussed "complex model" performance standard; and accepting a modified version of the complex model. ---

EXCISE

ci

Given U/S Spero's travel schedule, an interagency meeting would need to take place on Friday, March 4 or Monday, March 7 if a decision is to be made before March 14, the end of the initial 60-day period for bilateral consultations under Article XXII of the GATT. Once a political-level decision is made, the resolution of the dispute and the termination of the GATT case would be negotiated by USTR and the GOV in the form of a MOU.

DEPARTMENT OF STATE		IS/EPC/CCR <i>JMC</i> Date: <i>10/22/94</i>
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FOIA Exemptions <u>CI</u>		<input type="checkbox"/> CLASSIFY as <input type="checkbox"/> S or <input type="checkbox"/> C OADR
RA- Exemptions _____		<input type="checkbox"/> DOWNGRADE TS to <input type="checkbox"/> S or <input type="checkbox"/> C OADR

2/17/94

Update on Reformulated Gasoline: State, USTR and EPA representatives met on February 17 to discuss the next steps in resolving the reformulated gasoline issue.

EXCISE

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C2(4)

DEPARTMENT OF STATE		IS/FPC/CDR <i>YMC</i> Date: <i>10/22/94</i>
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<input type="checkbox"/> DELETE Non-Responsive Info		<input type="checkbox"/> CLASSIFY as <input type="checkbox"/> S or <input type="checkbox"/> U or <input type="checkbox"/> DADR
FORM Exemptions <i>CL, C2(4)</i>		<input type="checkbox"/> DOWNGRADE TS to <input type="checkbox"/> S or <input type="checkbox"/> U or <input type="checkbox"/> DADR
PA Exemptions _____		

~~SECRET~~ Inter-agency Meeting on Reformulated Gasoline. EPA has accepted our request for an interagency meeting on reformulated gasoline, now set for Friday.

EXCISE

cl

We hope to have a formal USG offer for the GATT talks which could begin as soon as February 13.

DEPARTMENT OF STATE		IS/FPC/CDR <u>AMC</u> Date: <u>10/22/74</u>
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<input type="checkbox"/> DELETE Non-Responsive Info		<input type="checkbox"/> CLASSIFY as <input type="checkbox"/> S or <input type="checkbox"/> C OADR
FOIA Exemptions <u>C1</u>		<input type="checkbox"/> DOWNGRADE TS to <input type="checkbox"/> S or <input type="checkbox"/> C OADR
PA Exemptions		

EXCISE

~~(S)~~ GATT Consultations Held With Venezuela on Reformulated Gasoline

- o USTR, EB, ARA and EPA officers slid into town February 11 to hold GATT Article XXII consultations with a Venezuelan delegation.
- o Venezuela went on record to state that EPA reformulated gasoline regs violate GATT Article I, most-favored nation treatment, Article III national-treatment, and Article XI, import restrictions.
- Venezuela argued that the EPA regs would bar \$ 450 million dollars worth of its gasoline from the U.S. over three years, cost it a return on a US \$ one billion investment and lose it market share.
- o
- o Venezuela requested a second round of GATT consultations before March 14, in Caracas. Both sides submitted a list of written questions to be answered by February 28.
- o After the consultations, EPA informed the rest of the U.S. delegation that it has obtained all the technical data needed. EPA staff will prepare a decision memo by February 18 in anticipation of a principals meeting they will try to arrange the week of February 21.

DEPARTMENT OF STATE		IC/EDC/ODR <i>SARC</i> info. <i>10/22/94</i>
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Venezuela Turns up the Heat on Reformulated Gasoline

On March 8, Venezuela put its request for a GATT panel on U.S. reformulated gasoline rules on the agenda for the March 23 GATT council meeting.

o

C.L.

o

- o The NEC hosts a sub-cabinet meeting March 14 to decide a U.S. response.

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State, USTR and EPA Prepare for February 10 GATT
Consultations with Venezuela on Reformulated Gasoline

- o We (EB/IEP, STA, ARA/AND) met this morning with EPA and USTR about the pending first round of talks with Venezuela over reformulated gasoline.
- o Advance word from Caracas is to expect a delegation February 10. USTR will organize the agenda with our input.
- o At today's meeting, EPA agreed with our request to have its emissions' lab people from Ann Arbor at the table so that remaining technical/scientific emissions questions can be addressed.
- o

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- o USTR General Counsel will brief the USG team February 9 and both EB and ARA will also be at the table February 10.

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USTR Hosts Rehearsal for GATT Consultations on
Venezuela's Complaint about our Reformulated Gasoline
Regulations

EXCISE

- o On February 9 USTR hosted State (ARA, EB), EPA, and Energy Department staff to run through the agenda for the February 10-11 GATT Article XXII consultations that Venezuela has requested on the trade impact of EPA's new reformulated gasoline regulations.
 - Article XXII consultations are designed to share information. A negotiated settlement is not expected at this time by either party.
- o
- o In earlier informal talks with Venezuela, EPA identified several options to diffuse the dispute.
 - At tomorrow's consultations, the USG will propose that EPA and Venezuelan technical staff meet outside of the formal agenda, probably on February 11, to thoroughly discuss these options.
- o EPA has already committed to preparing a final policy options paper by the end of February for consideration by inter-agency principals.

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progress to be made in more clearly spelling out the options available in

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EB/IEP

Tuesday, February 1, 1994

EXCISE

I. Daily Report

(*) State Calls Inter-agency Meeting on Reformulated Gasoline. Caldera Inaugurated Venezuela's President.

C 2

Also in Venezuela, Rafael Caldera was sworn in as president today. Julio Sosa Rodriguez, who met with Under Secretary Spero December 10 on reformulated gasoline, has been named Minister of Finance.

IS/FPC/CDR *Spec* date *10/24/94*

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CLASSIFIEDEB/IEP - Glen RoseThursday, January 6, 1994I. Daily ReportVenezuela Reopens Dialogue With EPA on Reformulated Gasoline

- c Venezuelan embassy reps and their Washington attorneys have begun preliminary talks with EPA in the wake of EPA's December 15 issuance of statutes on reformulated gasoline.
- o EPA is examining Venezuela's case at its Michigan air quality labs, and notes that it may yet find an emissions option which could be extended to Venezuela as well as domestic refiners.
- o The talks are still very preliminary. The goal is for EPA's technical level to explore with GOV representatives a few options that would provide Venezuela greater market access, but that would be acceptable to the domestic refiners.
- o Separately, domestic refiners are pushing EPA to ease onerous provisions of the statute which significantly complicate the distribution and marketing of reformulated gasoline.

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~~CONFIDENTIAL~~

0007 -- Venezuela ~~Refinery~~ Process for Equal Treatment
 under U.S. Clean Air Act Statutes. The Clean Air Act of 1990
 legislates that EPA must issue statutory guidelines by the end
 of the year for the mandatory introduction of reformulated
 (cleaner burning) gasoline into U.S. metropolitan areas with
 poor air quality. EPA published its draft statutes in the
 Spring.

EXCISE

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and DOE. We are following the issue closely with EPA

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12/22/94

United States Department of State

Washington, D.C. 20520

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TO: ARA - Alexander F Watson
FROM: ARA -
SUBJECT: Venezuela and EPA's Regulation Negotiation

Summary

PDVSA did not participate in EPA's reg-neg process and did not sign the 1991 reg-neg agreement. PDVSA's U.S. subsidiary, CITGO, appears to have participated in the process, but did not sign the agreement. EPA argues that the National Petroleum Refiners Association (NPRA) signed the agreement, and since CITGO is a member of the NPRA, the NPRA signed on its behalf. The next step should be for the Venezuelans to make a formal request for meeting with the EPA, leaving it up to the EPA to say when they are ready for further discussions.

The PDVSA Argument

Matt McManus of EB/IEP and Perry Ball of ARA/AND spoke with PDVSA's Washington D.C. lawyer, Mike Sherman of Collier, Rill and Scott, about Venezuela and the EPA's regulation negotiation (reg-neg). According to Sherman, the reg-neg is a process which got the EPA and the domestic refiners together to hammer out the EPA regulations on reformulated gasoline as they were being made. In return, refiners that signed on to the reg-neg process promised not to sue over issues that were discussed in the process or with which they did not get their way.

Sherman added that Venezuela's state oil company, PDVSA, is not a signatory to the reg-neg. PDVSA did lobby EPA directly, but is not bound by the reg-neg agreement. PDVSA's U.S. subsidiary CITGO, did observe the reg-neg, but was not a signatory, nor did it represent its parent. More importantly, the "foreign refiner issue" was not covered in the reg-neg. This is attested to by the lack of any mention of the foreign refiner issue in the reg-neg agreement and in a letter to EPA Administrator Carol Browner by Citizen Action (Tab 1). Thus, even if PDVSA or CITGO had signed, they would still have a right to protest the differential treatment of foreign refiners which was not discussed.

EPA's Point of View

Perry Ball later discussed Sherman's comments with Mary Smith, Director of the EPA's Field Operations and Support Division of the Office of Mobile Sources, who works for Dick Wilson. She confirmed Sherman's views about the reg-neg,

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but took exception to his statement that CITGO had "observed" the reg-neg, but was not a signatory. She said it would be more accurate to say that CITGO had "participated" in the reg-neg, but was not a signatory. She said that CITGO was on one of the four "work groups" of the reg-neg, but was not on the major committee. She also explained that the two main refiner associations, the American Petroleum Institute (API) and the National Petroleum Refiners Association (NPRA) both signed the reg-neg on behalf of their members, which is why most of the U.S. refiners did not sign. CITGO is a member of the NPRA, so it can be argued that the NPRA signed on its behalf.

The Establishment of Baselines

As to your specific questions regarding the baselines, the agreement on baselines for domestic refiners was worked out in the original reg-neg agreement signed in August 1991. This agreement was silent on baselines for foreign refiners. The EPA-Venezuelan verbal agreement to establish an individual baseline for PDVSA was reached in a private meeting between Venezuelan Energy Minister Ferrera and EPA Deputy Administrator Robert Sussman in August 1993.

The Next Step

Attachment:

Tab 1 - Citizen Action Letter to EPA Administrator Browner

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(10)

ANNEX 277 X1



United States Department of State
Washington, D. C. 20520

EXCISE C1 C-

INFORMATION MEMORANDUM

~~_____~~

S/S

TO: E - Mrs. Spero
FROM: EB - Daniel K. Tatuillo
SUBJECT: EPA Proposed Reformulated Gasoline Statute Poses GATT Concerns

Summary. We are concerned that proposed EPA "statutes" could leave us open to a \$ 1 billion dollar GATT damage claim. As mandated by the Clean Air Act of 1990, the EPA must issue the statutes regulating the components of reformulated (cleaner burning) gasoline. The current deadline is December 15. The statutes are now under OMB review. EPA's language would deny foreign refiners an option for meeting pollutant-content levels available to U.S. refiners. Venezuelan government owned Petroleos de Venezuela (PDVSA) argues that its exports to the U.S. market will be restricted by its inability to take advantage of this option. Should the statutes take effect, the GOV has indicated it will take the U.S. before a GATT panel.

~~_____~~
~~_____~~
~~_____~~ end Summary.

DISCUSSION

EPA's proposed reformulated gasoline statutes mandate that, for the 1995-1997 period, U.S. refiners hold three gasoline components (sulfur, olefins, T-90) at their individual 1990 baseline level. Foreign refiners would be required to keep these substances at the average U.S. level of 1990 -- essentially creating a different, and in some cases stricter, standard.

- EPA argues that it can neither verify the baselines of foreign owned refineries with certainty nor enforce U.S. penalties should they alter their data.
- EPA says it can verify and enforce a uniform average U.S. baseline measured at the port of entry; thus, EPA claims, a potential "double standard" is necessary for the statutes to be administered.
- U.S.- owned refineries abroad, however, would be allowed their own individual baselines.

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- Venezuela argues that, like U.S. refiners, it has the data to establish its own baseline. PDVSA admits that its olefin levels are higher than the U.S. average but points out that a U.S. refiner would be allowed to sell gasoline with similarly high olefin content. Venezuela claims that emissions from burning its reformulated gasoline would be as clean or cleaner than the U.S. average.
 - Venezuela asserts that EPA's motive has less to do with the environment than with satisfying concerns raised by U.S. refiners who want to reduce competition from Venezuela.
- The GOV's assertion is strengthened by the fact that EPA had reached a tentative agreement with Venezuela in August that met many of PDVSA's concerns. The agreement would have allowed PDVSA its own baseline for 60,000 b/d of product, with the average U.S. baseline applying to additional volumes.
 - Venezuela agreed to assume the burden of substantiating its technical data and not to challenge the statutes in the GATT.
- The American Petroleum Institute, backed by refiners Sun and Mobil, vigorously and successfully lobbied EPA to drop the draft agreement with Venezuela.
 - API argues that lax foreign environmental standards give non-U.S. refiners a cost advantage.
 - API enlisted environmental groups and regional air quality administrators who feared that Venezuela's higher olefin content would harm air quality.
- We informed API that the statutes were beyond our jurisdiction but that we did raise legitimate GATT concerns with EPA. We suggested to API that its environmental concerns would be satisfied with a uniform cap on olefin levels, that would apply to domestic and foreign product.
 - API was not receptive.
- The Society of Independent Gasoline Marketers of America, joined by Citizen Action, called on EPA to allow foreign refiners to establish their own baseline. They believe that the resulting increase in gasoline supply would increase competition and decrease retail gasoline prices.
-

- If a panel is convened, and finds against the U.S., we could block adoption of the panel report, as we did when GATT ruled that U.S. prohibition of tuna imports from Mexico was GATT-illegal.
- We are the only party to have suffered a negative finding on an environmental regulation. Additional blocked reports would promote perceptions of U.S. willingness to act unilaterally in defiance of GATT. *C. J. (4)*
- If the panel report should be adopted, U.S. exports to Venezuela could be subjected to duties designed to counterbalance the estimated \$ 1 billion in damages suffered by Venezuela. *or US would have to raise duties -*

-- Venezuela is the second biggest market for U.S. exports in Latin America; 1992 exports were \$ 5.4 billion. (Major export categories include machine parts, automotive parts, passenger vehicles and computers).

/ We are awaiting the formal OMB request for inter-agency comments on the EPA statutes.

-- In the interim, we are working with USTR and Treasury to coordinate a written response to OMB and to prepare principals for high level telephone calls to EPA, OMB and NEC.

State and Treasury oppose the proposed statute on GATT and consumer interest grounds. ~~We believe USTR will also oppose on GATT grounds.~~

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R



United States Department of State
Washington, D. C. 20520

INFORMATION MEMORANDUM
S/S

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TO: E - Mrs. Spero
FROM: ARA - Alexander F Watson *AFW*
SUBJECT: Update on Venezuela and the Reformulated Gasoline Issue

On December 14 I spoke to Ambassador Davidow in Caracas and briefed him on the results of the interagency discussion on Venezuela and the EPA's reformulated gasoline program. I told him we would be providing him with an EPA approved statement to use with GOV officials and the Venezuelan press.

On December 15, I called Venezuelan Minister of Energy Parra and gave him with a verbal summary of the EPA's intentions regarding Venezuela. My conversation followed verbal talking points provided by Dick Wilson, Director of EPA's Office of Air Quality and Radiation (Tab 1). I provided the same information to Ambassador Davidow who briefed President-Elect Caldera's Transition Team Head, Dr. Julio Sosa Rodriguez, and PDVSA President Gustavo Roosen.

On December 16, the EPA issued a press statement and conducted a press briefing on the reformulated gasoline rule issued on December 15. The press statement did not mention Venezuela or the foreign refiners issue (Tab 2). The press briefing, conducted by EPA Assistant Administrator for Air and Radiation Mary Nichols, included two questions that related to Venezuela: one by an unidentified Venezuelan journalist and one by a Platt's Oilgram News correspondent. Nichol's answers included and expanded on the talking points provided by Wilson.

On December 20, at ARA's request, the EPA issued a press statement on the use of individual baselines by foreign refiners (Tab 3). This statement puts in writing the talking points provided by Wilson and has been forwarded to Ambassador Davidow for use with GOV officials and the Venezuelan Press.

GOV officials have been moderate, the tone of their remarks tempered by the possibility of a negotiated solution. Press coverage was initially moderate, but became more negative over the weekend. You may also wish to review the attached Platt's Oilgram News article of December 17, which is the only major U.S. news item we have seen on this subject to date (Tab 4).

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Attachments:

Tab 1 - EPA Talking Points of December 15 plus Q&A's From
EPA Press Briefing of December 16

Tab 2 - EPA Press Statement of December 15

Tab 3 - EPA Press Statement of December 17

Tab 4 - Platt's Oilgram News article of December 17



United States Department of State

Bureau of Inter-American Affairs

Washington, D.C. 20520-6258

TO: ARA - Alexander F Watson
 FROM: ARA - Ed Casey
 SUBJECT: Update on Reformulated Gasoline
Summary

[With a GATT challenge over the horizon, USTR is now as anxious as we are to resolve this issue and feels that the inter-agency approach will encourage EPA to make more rapid progress. In the technical talks already underway, the GOV and EPA are charting areas of compromise. A pending GATT suit will likely also afford EPA an opportunity to explain any compromise in terms of U.S. treaty obligations.]

GOV Takes it to the GATT...

[We recommended in our last memo that Ambassador Davidow meet with Energy Minister Parra to encourage the GOV to formally request bilateral, non-GATT, consultations with the EPA. This would serve the purpose of formally placing the ball in EPA's court.]


The End Game

USTR now wants to formalize the PDVSA-EPA technical meetings by adding interagency participation (USTR, State, Energy and possibly Treasury) and GOV officials to comply with the formally requested GATT bilateral consultations. In effect, the GATT consultations would be grafted onto the ongoing PDVSA-EPA meetings. This would have the advantages of preventing the EPA from going it alone without the involvement of the other interested agencies. It would also create leverage on EPA to reach an equitable agreement. Finally, formal consultations would provide EPA an opportunity to explain any agreement in terms of U.S. treaty obligations.



United States Department of State

Washington, D. C. 20520

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CONFIDENTIAL
BRIEFING MEMORANDUM
S/S

TO: E - Mrs. Spero

FROM: ARA - [REDACTED] Acting *JS*

SUBJECT: Inter-agency Meeting on Venezuelan Reformulated Gasoline
Time: 1:30 p.m., March 14
Place: Room 180, OEGB

I. PURPOSE:

1) To seek inter-agency support for EPA's "Foreign Refiner Individual Baselines with Volume Cap Option" to resolve the U.S.-Venezuelan reformulated gasoline (RFG) dispute; and 2) to obtain inter-agency agreement to provide the Venezuelans with a specific date by which EPA would publish a proposed change of the existing RFG regulations in the Federal Register. Both actions are needed to prevent the GOV from taking the U.S. to a GATT investigative panel on March 23.

- o [REDACTED]
- o EPA Administrator Carol M. Browner is not expected to attend the March 14 meeting and will be represented by EPA Assistant Administrator for Air and Radiation Mary Nichols.
- EPA will not advocate either the "Volume Cap" (September Compromise) option or the "Retain the Final RFG Rule" (do nothing) option, but will wait for the inter-agency group to endorse one option.
- o The meeting will be chaired by Sally Katran of OMB; Bowman Cutter of the NEC is in Detroit at the G-7 Jobs Conference.

At the March 14 Meeting

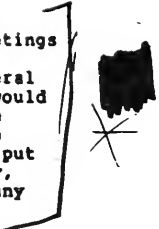
- o We should seek inter-agency support for EPA's "Volume Cap" option to resolve the U.S.-Venezuelan reformulated gasoline (RFG) dispute.
- This option would allow Venezuela to set its own baseline for the first 60,000 barrels/day of RFG exports to the U.S. with the stricter average U.S. baseline applying to all additional exports.
- This option restricts the competitive pressure on domestic refiners and limits any potential environmental effects from Venezuela's relatively "dirtier" gasoline.
- This option was accepted by the GOV last September and the EPA now believes it can adequately measure/monitor Venezuelan compliance.
- o We should also obtain inter-agency agreement to have the EPA draft, and OMB clear, a proposed rule change to be published in the Federal Register by April 21.
- USTR would then draft a credible message spelling out the USG offer and conditions to the GOV.
- This would allow the USG to persuade the GOV to drop its March 23 GATT panel request.
- If necessary, the USG could send a delegation to Caracas to finalize the USG offer, thereby resolving the dispute.

Attachments:

- Tab 1 - Talking Points
- Tab 2 - Embassy Caracas cables on reformulated gasoline: Caracas 1998; Caracas 1933; and Caracas 1932
- Tab 3 - White House Venezuela Briefing Paper
- [REDACTED]

The End Game

USTR now wants to formalize the GOV-EPA technical meetings by adding USG interagency participation (State, USTR and Energy) to comply with the formally requested GATT bilateral consultations. In effect, the ongoing GOV-EPA meetings would be expanded into GATT consultations. This would have the advantage of preventing EPA from acting alone without the involvement of other interested agencies. It would also put pressure on EPA to reach an equitable agreement. Finally, formal consultations would give EPA a chance to explain any agreement in terms of U.S. treaty obligations.



ONE HUNDRED THIRTH CONGRESS

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U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, DC 20515-6116

REG 77 STURTE STAFF DIRECTOR/CHIEF COUNSEL

August 29, 1994

The Honorable Carol M. Browner
 Administrator
 Environmental Protection Agency
 401 M Street, S.W.
 Washington, D.C. 20460

Dear Administrator Browner:

As you know, the Subcommittee on Oversight and Investigations, pursuant to Rules X and XI of the Rules of the U.S. House of Representatives, requested from the Environmental Protection Agency (EPA) documents that were in EPA files for our hearing of June 22, 1994 concerning implementation of the Clean Air Act (CAA) provisions regarding reformulated gasoline.

The agency provided many of those documents. However, by letter of June 17, 1994, EPA's Deputy General Counsel, Gary S. Guzy, advised the Subcommittee that the EPA has been coordinating the treatment of certain documents with the White House. Mr. Guzy, in supplying some documents, said:

"Certain other documents are not being produced at this time, as the Special Counsel to the President is continuing to examine them to determine whether they are subject to executive privilege. Mr. Cutler notes that he expects to discuss with you and the Subcommittee whether a mutually satisfactory accommodation can be reached that will take account both Congress' interest in obtaining information and the privilege accorded to deliberations within the Executive Branch."

Since then, Administration officials provided the Subcommittee staff with a list which very briefly describes 14 documents in EPA files which they believed warranted further discussion. Some documents appear to have been prepared at the EPA, while others apparently were prepared elsewhere and copies were provided to the EPA. In addition, representatives of the Office of the Special Counsel to the President met with Subcommittee staff to discuss the documents contained on the list relative to possible claims of Executive Privilege regarding some or all of these documents. I appreciate the willingness of these Administration officials to meet with the Subcommittee staff as we fulfill our important oversight responsibilities and to

The Honorable Carol M. Browner
August 29, 1994
Page 2

discuss these matters. It is helpful.

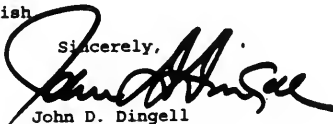
However, I do not believe that such claims generally attach to documents in EPA files and I am troubled that your agency apparently transferred any of these documents to the White House. They should have remained with the agency while such discussions took place. I request that all of these documents be returned to the EPA and that in the future your agency not transfer documents subject to a Subcommittee request in EPA files to any other agency.

Based on discussions to date, to the documents numbered 1 through 4, 7 through 9, and 10 through 12, I believe that there is no question that the EPA should have provided them to the Subcommittee and I request that you do so. As to the other documents, the explanation provided to date through these discussions is insufficient to fully assess the nature of the documents or the Administration's contentions about the possible application of Executive Privilege. Therefore, to the extent that you do not provide these documents or any of the above numbered documents to the Subcommittee, I request that you respond to the matters specified in Attachment A about those documents.

The requested information should be provided by Friday, September 16, 1994. If you or your staff have any questions about this request, please contact Reid P.F. Stuntz, Staff Director and Chief Counsel of the Subcommittee, at (202) 225-4441.

With every good wish

Sincerely,



John D. Dingell
Chairman
Subcommittee on
Oversight and Investigations

Enclosure

cc: The Honorable Dan Schaefer
Ranking Republican Member
Subcommittee on Oversight and Investigations

Mr. Lloyd N. Cutler
Special Counsel to the President

The Honorable Jean Nelson
General Counsel
Environmental Protection Agency

ATTACHMENT A

1. Please provide a detailed description of the documents that you are not providing to the Subcommittee, as follows:
 - a. In the case of a document not prepared by the EPA, please explain how and when the EPA received the document and why the EPA received it. In the case of all the documents, please identify the offices at the EPA where the document and all copies thereof are located or, prior to transfer to the White House, were located.
 - b. Please also provide the name, title, and agency affiliation of the author of each document; the name(s), title(s), and agency affiliation(s) of the addressee(s); the date of the document and the number of pages of the document; a brief description of the subject matter and purpose of the document; the names and titles of all individuals employed by the EPA (other than addressee) transmitted copies of the document; and, if known, the names and titles of all individuals employed by the Executive Office of the President (other than addressee) transmitted copies of the document by the EPA or any other agency and the transmittal date.
2. Please identify whether any document not provided was prepared for, or related to, a meeting involving the President or individuals employed by the Executive Office of the President and please identify: the names, titles, and affiliation of all meeting participants; the date of the meeting; the subject matter and purpose of the meeting; and the purpose of the document in relation to the meeting.
3. For each of the documents not provided, please identify any such documents: prepared for the President or at the President's request; sent to the President for his review; reviewed personally by the President; or discussed with the President at a meeting.

Please provide the date of any such request, review, or discussion and identify the specific pages of the document reviewed by, or discussed with, the President.
4. Please describe the legal basis or other reasons for not providing the documents in question to the Subcommittee.

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FROM EPA MOBILE SOURCESFOSD DIRECTOR
TO

MARY SMITH P.01

United States
Environmental Protection
AgencyCommunications, Education,
And Public Affairs
(A-107)

Environmental News

EPA ANNOUNCES REFORMULATED GASOLINE RULE

Martha Casey 202-260-4378

December 14, 1993

The U.S. Environmental Protection Agency today announced two actions to help cities reduce smog, boost the Midwest economy and help America's farmers. EPA announced plans to issue a final rule and a proposed rule that underscore the Administration's commitment to addressing the concerns of states, industry, farmers, and environmental and consumer groups.

First, EPA will issue its reformulated gasoline rule, a major clean fuel program under the Clean Air Act. This rule will reduce smog forming emissions in the nation's largest cities by nearly 30 percent by the year 2000, bringing substantially cleaner air and health benefits. Second, EPA will issue a separate proposal to help assure a market for renewable fuels, such as ethanol and ETBE, in the reformulated gas program.

The reformulated gasoline rule represents one of the most significant steps forward in the battle against urban smog. The rule will provide refiners with the standards they need to begin producing this cleaner gasoline in 1995.

The impact of the renewable fuel proposal would be to create additional demand for renewable fuels. This will bring jobs and investment to farmers and reduce our dependence on imported oil. EPA's proposal would help farmers by boosting the demand for ethanol and ETBE while protecting our environment.

- 30 -

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages ▶ 1

To *Dirk Wilson*
Dist. Agency

From *Mary T. Smith*
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Fax: *260-3730* Fax: *233 9556*

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United States
Environmental Protection
Agency

Communications, Education,
And Public Affairs
(4-107)

Environmental News

WEDNESDAY, DECEMBER 18, 1992

EPA FINALIZES REFORMULATED GASOLINE RULE

Martha Casey 202-260-4378

The U.S. Environmental Protection Agency today announced two actions designed to help cities reduce smog, boost the Midwest economy and help America's farmers. The agency issued a final rule and a proposed rule that underscore the Administration's commitment to a process that addresses the concerns of states, industry, farmers, and environmental and consumer groups in determining policy.

First, EPA issued its reformulated gasoline rule, a major clean fuel program under the Clean Air Act. This rule will reduce smog forming emissions in the nation's largest cities by nearly 30 percent by the year 2000, bringing substantially cleaner air and health benefits. In addition, EPA is asking for comment on a separate proposal to assure a market for renewable fuels, namely ethanol and ETBE, an oxygenate made from ethanol, in the reformulated gas program.

The agency said the reformulated gasoline program is one of the most environmentally significant initiatives provided in the Clean Air Act for controlling ozone-forming compounds and toxic emissions.

EPA Administrator Carol M. Browner said, "The reformulated fuel program is one of the most effective ways to reduce ozone emissions and it is the first program to directly address toxic emissions from motor vehicles. This federal program will greatly help many areas to achieve air quality standards and improve public health for millions of Americans."

The second action is a separate proposal to assure a market for renewable fuels, namely ethanol and ETBE in the reformulated gas program. The proposed rulemaking would assure that a 30 percent share of the oxygen required in the reformulated gasoline program would come from renewable oxygenates.

-1-

"The renewable fuel proposal would create additional markets for ethanol and ETBE. This will bring jobs and investment to farmers and reduce our dependence on imported oil," Browner said. "EPA's proposal would help farmers by boosting the demand for ethanol and ETBE while protecting our environment."

Agriculture Secretary Mike Espy, commenting on EPA's rule, stated, "This proposal demonstrates President Clinton's strong commitment to support ethanol and the ethanol ether ETBE. One of my top priorities is improving farm income and this initiative will do just that. Farmers will enjoy new market demand for their corn and other commodities used to make ethanol. Jobs in rural areas and new investment will be created by this proposal. At the same time, we will be protecting our environment and improving the nation's energy security."

Ozone is a severe irritant that damages lung tissue and aggravates respiratory disease. Exposure to elevated levels may cause permanent lung damage. Ozone is the result of chemical reactions involving hydrocarbons, nitrogen oxides and sunlight.

Vehicle emissions are estimated to be responsible for about half of the cancer risk associated with all air toxic pollutants. Nationally, they contribute 36 percent of the volatile organic compounds (VOC) in the air and about 46 percent of nitrogen oxides, the two primary pollutants that form ozone.

The Clean Air Act requires the reformulated gasoline program to begin Jan. 1, 1995, in areas with the highest levels of ozone. Those cities are: Los Angeles, Baltimore, Chicago, Houston, Milwaukee, New York City, Philadelphia, San Diego and Hartford. Other areas that exceed the ozone air quality standard may also participate in the reformulated gasoline program. If all eligible areas opt into the program, reformulated gasoline would account for about 88 percent of U.S. gasoline sales. So far, Washington, D.C., as well as some or all of the non-attainment areas in 13 states have adopted the program, accounting for about 30 percent of U.S. fuel market. (A list of areas and counties follows.)

Reformulated gasoline is expected initially to reduce volatile VOCs and toxic pollutants from vehicles 16 to 17 percent relative to 1990 baseline gasoline. By the year 2000, VOC reductions will be reduced 25 to 29 percent. Toxic emissions will be reduced by 20 to 22 percent and NOx by 5 to 7 percent.

In addition to health and environmental benefits the use of reformulated gasoline in the nine required areas will reduce demand for oil imports by 300,000 barrels a day.

The agency expects to expedite the rulemaking for the proposed 10 percent renewable fuels requirement with a public hearing in mid-January 1994 and issue a final rule next June.

Today's rule on reformulated gasoline will be published in the Federal Register in January 1994.

The rule also will be available on the Technology Transfer Bulletin Board System. To access the bulletin board please call:

R-298

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EPA STATEMENT ON
THE USE OF INDIVIDUAL BASELINES BY FOREIGN REFINERS
IN THE REFORMULATED GASOLINE PROGRAM

In EPA's final regulations on reformulated gasoline, promulgated on December 15, 1993, foreign refiners are not allowed to have individual baselines. The average baseline established in the Clean Air Act Amendments of 1990 must be used by foreign refiners.

This issue is technically complicated and was subject to a great deal of discussion during development of the reformulated gasoline regulations. EPA officials had discussions with officials of the Venezuelan government and representatives of PDVSA but were unable to resolve all environmental issues prior to the court-ordered deadline of December 15 for promulgation of the regulations.

EPA is interested in continuing discussions with Venezuela on the issue of foreign refinery baselines. The door is still open and it may be possible to resolve this matter in a way which satisfies the concerns of Venezuela and achieves the U.S. environmental objectives of the Clean Air Act.

United States
Environmental Protection
Agency

Communications, Education
And Public Affairs
(1703)



Note to Correspondents

Wednesday, March 23, 1994

EPA STATEMENT ON GATT SETTLEMENT WITH VENEZUELAN GOVERNMENT

Martha Casey 202-260-4378

The U.S. Environmental Protection Agency today announced that an agreement has been reached between the United States and Venezuelan Governments regarding Venezuela's claim that the EPA's reformulated gasoline rules do not provide equal treatment for foreign refiners and, hence, violate the General Agreement on Tariffs and Trades (GATT).

When EPA issued its final rule for cleaner, "reformulated" gasoline on the court-ordered deadline of December 15, 1993, it was in the midst of discussions with the Venezuelan Government on this issue. Since no agreement had been reached by the court-ordered deadline, EPA's final rule raised issues for Venezuela under the GATT. At the time, however, the Agency stated that it would continue to consider Venezuela's concerns about free trade and gasoline imports.

Feeling that the relief sought by the Venezuelan's might produce the least environmentally desirable outcome, the U.S. and Venezuela have negotiated a compromise. Venezuela had initially asked that both their reformulated and conventional gasoline be evaluated in the same manner as for domestic refiners and that no volume restrictions would apply. Under the compromise, however, Venezuela has agreed to limit use of this approach to 1990 volumes of only reformulated gasoline.

Under this agreement, EPA would propose to amend the portion of its reformulated gas rule that affects the calculation of foreign refiners' baseline and take public comment on the proposal. The agreement results in the VOC and toxic reductions required by EPA's current regulations and for a no NOx increase over 1990 levels as required by the Clean Air Act. Moreover, it avoids a GATT challenge, which if successful, could result in significant adverse trade and environmental ramifications for the U.S.

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-2-

EPA's reformulated gasoline rules provided that each domestic refiner and importer be assigned a baseline for its 1990 gasoline (average quality of a refinery's gasoline in 1990), against which reformulated and conventional gasoline compliance would be measured. The rule provided that domestic refineries use individual refinery data during 1995 through 1997 to calculate their reformulated gasoline baselines. Importers, because of difficulties associated with tracking and verifying data for foreign sources of gasoline, are required to use a baseline provided for in the Clean Air Act. Venezuela claimed that this scheme did not provide for equal treatment between foreign and domestic refiners and, hence, violated the GATT. Beginning in 1998 all refiners, both domestic and foreign, must use the reformulated gasoline baseline specified in the Clean Air Act.

On January 14, 1994, the Venezuelan Government asked for formal GATT consultations with the U.S. and on March 9, asked that their request for a GATT panel be taken up at the next GATT council meeting on March 23 in Geneva. A GATT panel would have formally reviewed Venezuela's claim that the reformulated gasoline rules are discriminatory.

Venezuela sought through the GATT process the use of individual baselines for foreign refineries, for all reformulated and conventional gasoline imported in 1995 and thereafter. The compromise announced today resolves the pending GATT issue. The baseline rules for conventional gasoline are not affected. The proposed rule will be issued by April 20, followed by a public comment period. It is expected that, if finalized, the rule change will only be utilized by Venezuelan refineries.

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TRADE:GATT

JDD:DF:crv

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U.S. House of Representatives
 Committee on Energy and Commerce
 Room 2125, Rayburn House Office Building
 Washington, DC 20515-6115

March 21, 1994

ALAN J. ROTH, STAFF DIRECTOR AND CHIEF COUNSEL
 DENNIS B. FITZGERALDS, DEPUTY STAFF DIRECTOR

The Honorable Warren Christopher
 Secretary
 Department of State
 2201 C Street, N.W.
 Washington, D.C. 20520

The Honorable Carol M. Browner
 Administrator
 Environmental Protection Agency
 401 M Street, S.W.
 Washington, D.C. 20460

The Honorable Michael Kantor
 U.S. Trade Representative
 600 17th Street, N.W.
 Washington, D.C. 20506

Dear Secretary Christopher, Administrator Browner, and
 Ambassador Kantor:

Enclosed is a February 7, 1994 letter I wrote about a new Administration policy, which I generally support, to govern the use of trade measures to enforce environmental objectives. In that letter I said:

I have long complained that many other countries in Europe and elsewhere have not adopted or, most importantly, do not effectively enforce environmental laws and rules similar to those in the U.S. Their rhetoric is high, but their actions, particularly enforcement actions, do not match the rhetoric. This failure has significant implications for the global environment and for our industries and workers in trying to compete. It also adds to pressures from industry and others to weaken our laws and regulations.

Since then, I have been advised by Administration representatives that the Venezuelan Government has filed a challenge under the General Agreement on Tariffs and Trade (GATT)

Page 2

to the Environmental Protection Agency's (EPA) reformulated gasoline (RFG) regulations. While I have not yet seen the documents filed by the Venezuelan Government, I understand that Venezuela is protesting that the regulations treat them differently than domestic refiners. As you know, this was a matter of concern at the hearing of October 29, 1993 by the Subcommittee on Oversight and Investigations, which I chair.

Reportedly, you have collectively and tentatively indicated a fear that the GATT challenge might succeed and, therefore, at a meeting on March 14, 1994, you concluded that you should offer Venezuela "the September compromise" (see enclosed State Department cable). I am greatly troubled by this reaction to Venezuela's challenge, because it was my understanding that the EPA, in promulgating the RFG rule, concluded that Venezuela's gasoline presented a significant environmental problem for the United States, particularly in the northeast and mid-Atlantic area. A particular concern is nitrogen oxide emissions and the high-sulfur content of the gasoline. That concern is heightened by the recent petition by the northeastern states to adopt California standards (see enclosed information provided by the U.S. oil industry). The Venezuela challenge also raises economic and competitive concerns for the U.S. industry.

It is my understanding that the EPA action was consistent with the provisions of Article XX of the GATT, including subparagraphs (b), (d), and (g). Further, I have great difficulty understanding why the U.S. Trade Representative and the State Department are apparently so willing to placate Venezuela, rather than actually contest the challenge, particularly in light of the matters discussed in my February 7, 1994 letter.

While I fully recognize that a challenge might be successful, I am not certain that would be a terrible result. I also understand that the U.S., in order to protect our environment and public health, need not accept the results of that challenge. Moreover, if Venezuela prevails, the U.S. can at that time consider reopening the rule. The U.S. does not need to panic now.

I am also concerned that a reopening of the RFG rule could result in delaying its implementation by those regulated by that rule. Such delays could cause gasoline shortages, next January 1, which I am sure the Administration wants to avoid.

Pursuant to Rules X and XI of the Rules of the House of Representatives, I request a copy of the Venezuelan challenge, as well as information regarding the content of the Venezuelan gasoline from the standpoint of emissions, including sulfur emissions; information regarding the impact of such a proposal on the northeast, should any of those states adopt California

Page 3

standards; and, most importantly, information about the impact of reopening the rule on the ability of those subject to the rule to comply on-time and avoid a gasoline shortage. Please also explain in detail the proposed September compromise with Venezuela that might be part of the proposed new rulemaking. What discussions have occurred with representatives of Venezuela and who participated in them? What, if any, commitments to Venezuela have been made regarding this matter?

Please provide all such information before any decision is made regarding reopening of the rule. At this time, I see no reason why the Administration should bow to this challenge and reopen the rule. I am particularly troubled that you have apparently concluded that the compromise is appropriate, even before the rulemaking takes place.

With every good wish,

Sincerely,



JOHN D. DINGELL
CHAIRMAN

Enclosure

cc: The Honorable Carlos J. Moorhead, Ranking Minority Member
Committee on Energy and Commerce

The Honorable Henry A. Waxman, Chairman
Subcommittee on Health and the Environment

The Honorable Thomas J. Bliley, Ranking Republican Member
Subcommittee on Health and the Environment

The Honorable Philip R. Sharp, Chairman
Subcommittee on Energy and Power

The Honorable Michael Bilirakis, Ranking Minority Member
Subcommittee on Energy and Power

Mr. Robert E. Rubin, Assistant to the President for
Economic Policy

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U.S. House of Representatives
 Committee on Energy and Commerce
 Room 2125, Rayburn House Office Building
 Washington, DC 20515-6115

March 25, 1994

The Honorable Warren Christopher
 Secretary
 Department of State
 2201 C Street, N.W.
 Washington, D.C. 20520

The Honorable Michael Kantor
 U.S. Trade Representative
 600 17th Street, N.W.
 Washington, D.C. 20506

The Honorable Carol M. Browner
 Administrator
 Environmental Protection Agency
 401 M Street, S.W.
 Washington, D.C. 20460

Dear Secretary Christopher, Ambassador Kantor, and
 Administrator Browner:

Since writing to you on March 21, 1994 about a proposed rule to amend regulations promulgated by the Environmental Protection Agency (EPA) last December on reformulated gasoline (RFG), a new State Department cable has come to the Committee's attention. It sets forth a summary of meetings and telephone calls between the U.S. Ambassador and Venezuelan officials regarding the reopening of the regulations. It includes a March 22, 1994 letter to the Minister of State, Mr. Alberto Poletto, and a March 22 reply from the Minister, and briefly describes the so-called "September compromise."

The U.S. letter includes a commitment by the U.S. to propose the reformulated gasoline rule by April 20, 1994 in exchange for Venezuela agreeing to withdraw a request for formation of a GATT panel in Geneva, Switzerland, but not the withdrawal of the GATT challenge. The Venezuelan reply indicates an acceptance of the U.S. offer "without limitations or additional modifications" if the offer is "put into effect as a final regulation within a

Page 2

period of five months" from March 22, 1994. Venezuela indicated that it would reopen the request for a panel if the regulatory process is interrupted or "if at the end of five months, this question has not been conclusively resolved."

It appears that the State Department and the Environmental Protection Agency have entered into an agreement with Venezuela that cannot be changed, even slightly, regardless of what is said by the public as part of the rulemaking. That makes a mockery of the rulemaking process. The decision has been made and Venezuela has imposed a timetable. We question the legality of that action under the Clean Air Act and the Administrative Procedures Act.

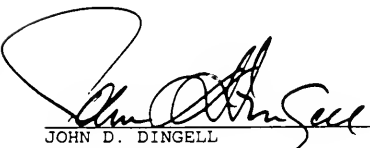
The State Department cable indicates that there have been several meetings and discussions with officials from Venezuela about this matter since last summer. The Committee requests a list, in chronological order, of all such meetings, including the identity of the participants, and all letters, memoranda, telegrams, and other relevant documents since last September in your files concerning the Venezuela matter. Please also explain the alleged discrimination claimed by Venezuela.

The cable states that the proposal "is consistent with the concepts discussed" with Venezuela last September. Please explain why those concepts were once rejected by the EPA and/or Venezuela last year and why they are acceptable to both at this time. The cable further states that any foreign refiner could cap its sulfur and olefin levels at the refiner's 1990 levels, if the relevant data are verified to EPA's satisfaction. We understood that such verification was a concern to EPA for several reasons, including data reliability. How has EPA overcome those and other concerns? Are sulfur and olefins the only pollutants of concern?

Please respond to this letter and our March 24 letter by April 20, 1994.

With every good wish.

Sincerely,



JOHN D. DINGELL
CHAIRMAN



MARJORIE MARGOLIES-MEZVINSKY
MEMBER OF CONGRESS

Page 3

cc: The Honorable Carlos J. Moorhead, Ranking Minority Member
Committee on Energy and Commerce

The Honorable Henry A. Waxman, Chairman
Subcommittee on Health and the Environment

The Honorable Thomas J. Bliley, Ranking Republican Member
Subcommittee on Health and the Environment

The Honorable Philip R. Sharp, Chairman
Subcommittee on Energy and Power

The Honorable Michael Bilirakis, Ranking Minority Member
Subcommittee on Energy and Power

Mr. Robert E. Rubin, Assistant to the President
for Economic Policy

Ms. Sally Katzen, Administrator
Office of Information and Regulatory Affairs
Office of Management and Budget

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REID P. STUNTZ, STAFF DIRECTOR/CHIEF COUNSEL

U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, DC 20515-6116

April 21, 1994

The Honorable Hazel R. O'Leary
 Secretary
 Department of Energy
 1000 Independence Avenue, S.W.
 Washington, D.C. 20585

The Honorable Carol M. Browner
 Administrator
 Environmental Protection Agency
 401 M Street, S.W.
 Washington, D.C. 20460

Dear Secretary O'Leary and Administrator Browner:

After much delay, the Environmental Protection Agency (EPA) promulgated on February 16, 1994 new regulations for certification and enforcement of reformulated gasoline (RFG) and provisions for unreformulated or conventional gasoline (59 F.R. 7716). The regulations were effective on March 18 and, pursuant to the Clean Air Act (CAA), they require retail sale of RFG to begin on January 1, 1995.

Our office was informed by EPA this afternoon that EPA has decided to proceed with the reopening of the regulations regarding Venezuelan gasoline by issuing a proposed rule, which we were told would be signed today. This course is deeply disturbing to the Subcommittee. It represents an abrupt reversal in the direction that we had been led by EPA to believe the Administration was heading on this issue over the course of the last several weeks. During that time, we had understood that EPA was considering the issuance of an advanced notice of proposed rulemaking (ANPRM) that would allow a period for comment on the question of whether EPA should proceed at all with a proposed rule. Today, without any prior notice to the Subcommittee, EPA has apparently determined to move forward precipitously without giving any interested parties a fair opportunity to express their views on that question.

For these reasons, as well as for the reasons set forth in our earlier correspondence on this issue, the Subcommittee

The Honorable Hazel R. O'Leary
The Honorable Carol M. Browner
Page 2

requests your reply, pursuant to Rules X and XI of the Rules of the House of Representatives, to the following questions:

1. At the October 29, 1993 hearing by the Subcommittee on Oversight and Investigations on implementation of the CAA, I expressed concern that the delay in promulgating regulations might cause a delay in implementation by those subject to the regulations, resulting a shortage of conventional and reformulated gasoline and higher prices. Any such shortage, whether local, regional, or national, would seriously affect the U.S. economy and general transportation needs.

The EPA and the Department of Energy (DOE) at that hearing assured me that the Administration does not expect shortages. However, the EPA and California did not expect problems when the low-sulfur diesel rule was implemented last year. Thus, I remain concerned. That concern is exacerbated by the Administration's decision to propose a change mandating a renewable oxygenate requirement and to change the February 16 rule to satisfy Venezuela. Both actions create uncertainty and raise difficult legal issues.

Please describe the actions each of your agencies have taken or plan to monitor timely compliance with the regulations and to ensure that there will be no shortages of gasoline of any kind beginning on January 1, 1995, under the regulations as finalized on February 16. To comply with these regulations, the gasoline will likely have to be delivered and stored long before January 1. What situations could arise that might disrupt supplies of either conventional or reformulated gasoline or fuels for other uses, taking into consideration contracts for supplies, changes in contracts to accommodate ethanol changes, permits, tank capacity, transportation, lead time, blending, and other factors? Based on the latest information available to your agencies since the hearing, do you anticipate any shortages or pricing problems? To what extent will these two proposals affect compliance by January 1, 1995? What pricing issues could arise under the RFG rule, with or without these two proposals?

2. EPA staff tells us that Venezuela was not a party to the regulatory negotiation for this rule. Did anyone represent foreign interests, including Venezuela's interests, such as the seller of Venezuelan gasoline in the U.S.? If not, why not? To what extent were the proponents of the ethanol proposal participants in the regulatory negotiation (Reg. Neg.) and signers to the "Agreement in Principle" of August 1991? Please explain to what extent, if at all, this proposal differs with that agreement.

The Honorable Hazel R. O'Leary
The Honorable Carol M. Browner
Page 3

3. With regard to the new ethanol proposal, the EPA preamble to the new regulations discusses a February 26, 1992, ethanol proposal made by the EPA pursuant to former President Bush's announcement that he wanted ethanol to effectively compete in the RFG program. As a supporter of the use of ethanol, I share that view. However, the preamble indicates that the EPA had a number of "concerns with respect to its legality, energy benefits, and environmental neutrality" and that since then the "concerns have been enhanced." The preamble then concludes:

While EPA maintains that the program would have provided an economic incentive for the use of renewable oxygenates in reformulated gasoline up to a 30% market share, EPA acknowledges that the proposal would have intruded into the efficient operation of the marketplace, impacting the cost of the reformulated gasoline program. As a result, after taking into account the cost, non-air quality and environmental impacts, and energy impacts, EPA has found itself with no choice but to back away from the renewable oxygenate provisions of the February 26, 1993 proposal.

Representatives Sherrod Brown and Jack Fields, in a February 22 letter to the EPA, state that the EPA "is on record as saying it is without legal authority to issue an ethanol mandate." They refer to EPA's final Regulatory Impact Analysis in support of this statement.

Did the DOE have concerns similar to those mentioned in the preamble by the EPA? Please provide all internal and inter-agency letters, memoranda, and other documents in DOE's and EPA's files about those ethanol related concerns.

Please explain how this new proposal overcomes each of the above concerns. Please provide the statutory authority for such a mandate, taking into consideration the policy of section 250(b) of the CAA.

4. Please explain the origin of the new ethanol proposal and the decision to propose it in December. Was this decision made by the EPA or others? Please provide all internal and interagency memoranda and other documents in EPA's files concerning the making of the decision to propose a new ethanol rule.
5. The enclosed March 7, 1994 article in New Fuels Report alleges that the DOE is considering whether to release a new "controversial" analysis. Please provide a copy of all

The Honorable Hazel R. O'Leary
The Honorable Carol M. Browner
Page 4

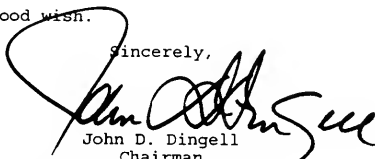
versions of the analysis to the Subcommittee and include them in the rulemaking record. What is the status of the analysis and is the DOE planning to withhold or delay its release?

6. Please explain the effect of the ethanol mandate on energy use and greenhouse gas emissions from the gathering of the new material through the consumption of the final fuel. Is the effect significant and of concern to the DOE or the EPA or both?
7. Does the ethanol proposal achieve the primary regulatory objective of the RFG and does it include specific performance criteria to qualify oxygenates as renewable? Does it violate the principle of fuel neutrality under the CAA and the Energy Policy Act of 1992? What are the benefits of the proposal?
8. If the ethanol proposal is not adopted by the EPA, will ethanol be able to compete effectively in the RFG program? If not, why not?

I request your response to the above matters by May 25, 1994. Please include the letter and your reply in the rulemaking record.

With every good wish.

Sincerely,



John D. Dingell
Chairman

Subcommittee on Oversight
and Investigations

Enclosure

cc: The Honorable Dan Schaefer, Ranking Republican Member
Subcommittee on Oversight and Investigations

The Honorable Henry A. Waxman, Chairman
Subcommittee on Health and the Environment

The Honorable Thomas J. Bliley, Ranking Republican Member
Subcommittee on Health and the Environment

The Honorable Hazel R. O'Leary
The Honorable Carol M. Browner
Page 5

The Honorable Philip R. Sharp, Chairman
Subcommittee on Energy and Power

The Honorable Michael Bilirakis, Ranking Minority Member
Subcommittee on Energy and Power

The Honorable Sherrod Brown, Member
Subcommittee on Oversight and Investigations

The Honorable Marjorie Margolies-Mezvinsky, Member
Subcommittee on Oversight and Investigations

The Honorable Jack Fields, Member
Committee on Energy and Commerce

The Honorable Calvin Kent, Administrator
Energy Information Administration

Mr. Robert E. Rubin, Assistant to the President
for Economic Policy

Ms. Mary Nichols, Assistant Administrator for Air
and Radiation, EPA

New Fuels Report

ALCOHOL WEEK'S NEW FUEL REPORT

sorting worldwide on oxygenates, alcohols, and other alternative fuels

Vol. 16 No. 10 - March 7, 1994

DOE MAY BURY ANALYSIS THAT PAINTS NEGATIVE PICTURE OF EPA PROPOSAL

The Department of Energy is contemplating whether to release the results of a new analysis of the energy and oil input requirements of ethanol use in reformulated gasoline that does not paint a positive picture for ethanol in terms of global warming and reduction of oil input benefits, according to DOE and industry officials. The Environmental Protection Agency highlighted these benefits as a rationale for the proposed renewable oxygenate standard (ROS) that would require renewable oxygenates to be used in 30 percent of the reformulated gasoline (RFG).

While extremely hesitant to discuss the highly controversial analysis, informed sources said that DOE recreated an oil and energy input analysis originally included in DOE's comments on a previous EPA proposal to allow a volatility waiver for ethanol. The preliminary results of the analysis — which currently are undergoing in-house review at DOE — found that despite EPA claims to the contrary, the use of ethanol and ETBE in gasoline provides little or no oil reduction benefits.

Originally, the agency did not plan to release the information that may discredit EPA's proposal, which was promulgated with the political backing of the Clinton Administration. One source explained that since the ROS is an Administration proposal, it was inappropriate for other federal departments to criticize the proposal. One DOE official said that "DOE wanted to submit [the analysis], but EPA would not accept it" because of political ramifications.

However, factions within DOE felt that it could not bury information that would be critical to the rulemaking and effect the nation's future energy balance, according to a source close to the issue. He explained that DOE is not interested in advancing markets for ethanol produced from corn, the primary beneficiary of the proposal. DOE is has invested extensive resources in research to develop ethanol from biomass feedstocks, according to the source. He speculated that some factions in the department might not want to allow this proposal — which would significantly benefit corn-based ethanol, possibly to the detriment of ethanol from cellulosic feedstocks — to be finalized without the input from the new analysis.

A DOE spokesman refused to elaborate on the analysis or speculate as to when it might be released. He stressed that the analysis is not yet complete and that the assumptions used are undergoing extensive review. Another DOE source stressed that the analysis is "a bean-counting kind of thing. It is not a poison pill for this proposal. The expectation that this does not mean that DOE opposes the proposal in any way."

Another industry source accused the policy office that conducted the study of skewing the results based on a long-standing bias against ethanol. He said that, as a result, high-level officials at the DOE Office of Energy Efficiency and Renewable Energy "have assured the ethanol industry that the office will work cooperatively with the policy office and the analysis will receive full interdepartmental review" before any results are released.

The original DOE fossil fuel and energy consumption analysis of ethanol, completed in May 1993 as part of DOE testimony during the RFG rulemaking last year, is extensively referenced in EPA's ROS. The original analysis demonstrates a minor benefit in energy and fossil fuel reduction from ethanol use. However, DOE concluded the energy gains to be so slight that it refused to recommend EPA's proposal that would grant special treatment to ethanol through a volatility waiver. DOE said that "since there are no energy, environmental or economic benefits from the ethanol proposal, we do not believe there is a basis to proceed with it" (*New Fuels Report*, June 14, p.1).

Nonetheless, EPA selectively quoted the DOE study in the ROS to prove that "all oxygenates reduce the amount of crude oil needed to produce gasoline on essentially a gallon per gallon basis." For example, EPA notes in its proposal that "the DOE study shows that the ethers made from renewable alcohols (in this case corn based ethanol) can save nearly 15 percent of the total fossil energy per gallon of ether or about 1.6 percent of the total fossil energy needed per gallon of reformulated gasoline. . . relative to using MTBE made from natural gas-based methanol."

A DOE source explained that the DOE study "was quoted in a way that needed some clarification." He stated the comments were ambiguous, could be interpreted incorrectly and also "could be used to support the basis of the proposal." Similarly, an EPA source said that there were significant differences between the vapor pressure waiver scenario for which the analysis was originally prepared and the current proposal which requires ethanol use in 30 percent of the market.

For example, he explained that the original analysis included the energy required to produce the low volatility gasoline required as a blendstock for ethanol during the summer months. He said that "lower Reid vapor pressure gasoline takes more energy to produce at the refinery." As a result, the summary concluded that the "analysis indicates that the use of ethanol in lieu of MTBE in phase I and phase II summer reformulated gasoline will increase energy and oil use."

An EPA source said that because of these differences between the two proposals, EPA needed to use the DOE study as a starting point for assumptions, then go backward and recalculate. He said that "the DOE analysis was not focused on the proposed rule." The new analysis will account for the modifications in the proposal. An EPA source said that despite the late release of the information, the information could still be included in the federal record, since DOE is a federal agency.

CLEAN AIR REPORT, THURSDAY, MARCH 10, 1994

Due to administration pressure

ENERGY DEPARTMENT MAY BURY STUDY CRITICIZING EPA ETHANOL MANDATE

Department of Energy officials are debating whether to release the results of a new study of EPA's proposed ethanol mandate which criticizes the use of the fuel in the federal reformulated gasoline program, according to DOE and industry officials. DOE researchers have found that EPA's ethanol mandate does not help the U.S. cut greenhouse gas emissions or oil imports by the amount claimed by the agency, say the sources. EPA emphasized these benefits as a rationale for requiring ethanol to be used in 30 percent of the reformulated gasoline sold through the federal program when it issued the proposal in December.

While hesitant to discuss the highly controversial analysis, informed sources say that DOE has recreated an oil and energy input analysis originally included in the department's comments on a previous EPA proposal to allow a volatility waiver for ethanol. The preliminary results of the analysis - which currently are undergoing in-house review at DOE - are that, despite EPA claims to the contrary, the use of ethanol and the fuel additive ETBE (ethyl tertiary butyl ether) in reformulated gasoline provides little or no reductions in oil imports.

DOE did not plan to release any information which may discredit EPA's ethanol proposal, developed by the Clinton administration after intense political pressure from corn-growing states. One source explains that since the ethanol mandate is an administration proposal, it is inappropriate for other federal departments to criticize the proposal. One DOE official says that "DOE wanted to submit [the analysis], but EPA would not accept it" because of political ramifications.

However, officials within DOE feel that they cannot bury the study, which could be critical for parties fighting EPA's ethanol mandate. DOE officials are also aware that EPA's ethanol mandate may have a negative impact on the nation's future energy requirements, according to a source close to the issue. The source says that DOE is not interested in helping to expand the market for ethanol produced from corn, the primary source of the compound. DOE has invested extensive resources in research to develop ethanol from biomass feedstocks, according to the source. The source speculates that some factions in the department might not approve of this proposal - which would significantly benefit corn-based ethanol, possibly to the detriment of ethanol from cellulosic feedstocks - to be finalized without submitting the new analysis to EPA.

-- A DOE spokesman refused to elaborate on the analysis or speculate as to when it might be released. DOE officials stress that the analysis is not yet complete and that the assumptions used are undergoing extensive review. Another DOE source says the analysis is "a bean-counting kind of thing. It is not a poison pill for this proposal." The source says "this [results of the study] does not mean that DOE opposes the proposal in any way."

An ethanol industry source accuses DOE's policy office of skewing the results based on a longstanding bias against the fuel. The source says that as a result, high-level officials at the DOE Office of Energy Efficiency and Renewable Energy "have assured the ethanol industry that the office will work cooperatively with the policy office and the analysis will receive full interdepartmental review" before any results are released.

The original DOE fossil fuel and energy consumption analysis of ethanol, completed in May 1993 as part of department testimony submitted during last year, is extensively referenced in EPA's ethanol proposal. The analysis demonstrates a minor benefit in energy and fossil fuel reduction from ethanol use. However, DOE concludes the energy gains to be so slight that it refused to fully support EPA's proposal waiver. DOE officials say that "since there are no energy, environmental or economic benefits from the ethanol proposal, we do not believe there is a basis to proceed with it."

Nonetheless, EPA selectively quotes from the DOE study on the ethanol requirement to prove that "all oxygenates reduce the amount of crude oil needed to produce gasoline on essentially a gallon per gallon basis." For example, EPA notes in its proposal that "the DOE study shows that the ethers made from renewable alcohols (in this case, corn-based ethanol) can save nearly 15 percent of the total fossil energy per gallon of ether or about 1.6 percent of the total fossil energy needed per gallon of reformulated gasoline . . . relative to using MTBE made from natural gas-based methanol."

A DOE source believes the original department study "was quoted in a way that needed some clarification." The source says EPA comments are ambiguous and could be interpreted incorrectly and also "could be used to support the basis of the proposal." Similarly, an EPA source says that there were significant differences between the vapor pressure waiver scenario for which the analysis was originally prepared and the current proposal which requires ethanol use in 30 percent of the market.

For example, the source explains that the original DOE analysis included the energy required to produce the low volatility gasoline required as a blendstock for ethanol during the summer months. The source says that "lower Reid vapor pressure gasoline takes more energy to produce at the refinery." As a result, the summary concludes that the "analysis indicates that the use of ethanol in lieu of MTBE in phase I and phase II summer reformulated gasoline will increase energy and oil use."

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Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, DC 20515-6116

REID P. STUNTZ, STAFF DIRECTOR/CHIEF COUNSEL

June 13, 1994

The Honorable Warren Christopher
Secretary
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2201 C Street, N.W.
Washington, D.C. 20520The Honorable Hazel R. O'Leary
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1000 Independence Avenue, S.W.
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Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460The Honorable Michael Kantor
U.S. Trade Representative
600 17th Street, N.W.
Washington, D.C. 20506Ms. Sally Katzen
Administrator
Office of Information and
Regulatory Affairs
Office of Management and Budget
Old Executive Office Building
Washington, D.C. 20503Dear Secretaries Christopher and O'Leary, Administrator Browner,
Ambassador Kantor, and Ms. Katzen:Pursuant to Rules X and XI of the Rules of the House of
Representatives, the Subcommittee on Oversight and Investigations
of the Committee on Energy and Commerce is continuing its over-
sight of the Clean Air Act Amendments of 1990 (CAA).

Page 2

I request that each of your agencies appear before this Subcommittee at a public hearing regarding the CAA scheduled for Wednesday, June 22, 1994, at 10:00 a.m. in Room 2123 of the Rayburn House Office Building. The emphasis of this hearing will be the implementation of the reformulated gasoline (RFG) requirements (and related matters) of the CAA by January 1, 1995 without supply shortages, economic disruption, or unexpected price increases. However, other CAA implementation issues regarding EPA funding and full-time equivalent (FTE) resources, transportation conformity requirements regarding nitrogen oxides (NOx), employee trip reduction requirements, and pollution transport issues will also be covered. I request that the panel for this hearing consist of the Energy Department (DOE) Assistant Secretary familiar with the RFG matters and the following other officials who have been engaged in decisions relative to proposed rulemakings regarding RFG:

- Ms. Joan Spero, Under Secretary for Economic and Agricultural Affairs
Department of State (DOS)
- Ms. Charlene Barshefsky, Ambassador
United States Trade Representative (USTR)
- Ms. Mary Nichols, Assistant Administrator for Air and Radiation, Environmental Protection Agency (EPA)
- Ms. Sally Katzen, Administrator
Office of Information and Regulatory Affairs
Office of Management and Budget (OMB).

I request that the panelists be accompanied by the following persons who have been involved in RFG matters: Mr. Alexander F. Watson and Mr. Perry Ball of the DOS; Ms. Karen Lezny, Ms. Carmen Suro-Bredie, Ms. Sandy Gaines, Mr. Ralph Ives, and Mr. Don Brinza of the USTR; and Ms. Mary Smith, Mr. Richard Wilson, Mr. John Hammon, Mr. Chip Lamason, and Mr. George Lawrence of the EPA. Such persons should be available for questions.

Please confirm by June 17, 1994 by telephoning the Subcommittee office (202-225-4441) the attendance of all the panelists and their staff.

It is my hope and expectation that the matters relating to the rules for RFG as they apply to foreign refiners will be addressed initially so that the representatives of the DOS, the USTR, and the Office of Management and Budget (OMB) will not have to remain for the entire hearing. However, I want to ensure that the record is complete on all RFG issues and that the Members will have ample time for questions. Thus, I cannot assure these agencies of an early dismissal.

Page 3

Each panelist is requested to submit a written statement of any reasonable length, which should respond to the enclosed Statement of Issues, to be included in the official hearing record. The panelists will be permitted up to ten minutes to summarize orally their statements. Thereafter, they will be expected to answer the questions of the Subcommittee. Each panelist should also be aware that, in accordance with its usual practice, the Subcommittee will employ the following procedures:

- (1) witnesses are required to provide sworn testimony;
- (2) witnesses should provide the Subcommittee with 30 copies of their prepared statement no later than two business days in advance of their testimony;
- (3) witnesses should provide the Subcommittee with an additional 70 copies of their prepared statements in advance of their testimony; and
- (4) witnesses have an absolute right to be represented by counsel, who may advise witnesses on their Constitutional rights, but who cannot testify. If appearing as a witness, counsel will be sworn.

A copy of selected provisions of the Rules of the U.S. House of Representatives applicable to this Subcommittee is enclosed for your information.

Also, I appreciate the prompt response of your agencies to our request for documents concerning the matters relating to foreign refiners, although I note that the EPA and the DOE have not responded to our request for documents regarding the ethanol matter. I note that the USTR has identified five documents as "confidential", the DOS has identified some documents as "Secret" and many more as "confidential," and the EPA has asked that several broad categories of documents be "preliminarily treated as confidential by the Committee."

The reasons for such treatment of so many agency documents are not readily apparent. Some documents were apparently marked confidential when written. Some of the documents provided by EPA and DOS under the confidential category have also been provided by USTR with no such restriction, such as various drafts of EPA's option paper. The DOS documents include attachments, such as a Citizen Action letter to the EPA, and a letter to Ms. Spero from a Venezuelan Minister thanking her for a meeting on the issue. The EPA material includes various drafts of options, including one that shows options other than the one adopted by EPA were considered and talking points for environmentalists. It also includes results of telephone conversations with the law firm representing the Venezuelan refinery and summaries of meetings

Page 4

with the Venezuelans, which presumably should be in the EPA docket.

The Subcommittee cannot agree to such blanket requests regarding these documents. The Subcommittee has honored such requests when it is clearly shown that there is a legitimate justification for confidentiality of a particular document or portion thereof, but the Subcommittee does not recognize blanket requests. I therefore request by June 17, 1994 that each agency requesting such confidentiality explain in writing which documents provided to the Subcommittee require confidential or secret treatment and why. Please be advised that I have serious doubts that confidentiality is required to protect the U.S. position regarding any possible GATT challenge because the GATT issues are one of the reasons for this hearing. I also have serious doubts about EPA contentions in regard to ethanol that the documents could affect challenges of the rule, since the legality of the rule has been discussed by EPA in its preamble. Nevertheless, I will consider your explanations.

Thank you for your assistance and cooperation with the work of the Subcommittee. Should you have any questions regarding the substance or the procedures of the hearing, please contact Mr. David B. Finnegan, Committee Counsel, at (202) 225-3147.

With every good wish

Sincerely,



JOHN D. DINGELL
CHAIRMAN

Enclosure

cc: The Honorable Dan Schaefer, Ranking Republican Member
Subcommittee on Oversight and Investigations

The Honorable Henry A. Waxman, Member
Subcommittee on Oversight and Investigations

The Honorable Sherrod Brown, Member
Subcommittee on Oversight and Investigations

The Honorable Marjorie Margolies-Mezvinsky, Member
Subcommittee on Oversight and Investigations

The Honorable Fred Upton, Member
Subcommittee on Oversight and Investigations

The Honorable Jack Fields, Member
Committee on Energy and Commerce

The Honorable J. Dennis Hastert, Member
Committee on Energy and Commerce

STATEMENT OF ISSUES
REGARDING
THE SUBCOMMITTEE ON OVERSIGHT
AND INVESTIGATIONS' HEARING
OF JUNE 22, 1994

June 13, 1994

In addition to the matters set forth in our letter of March 25, 1994 to the EPA concerning budgeting and CAA implementation issues (including deadline suit issues), our letter of April 21, 1994 to the EPA and the DOE, and our letters of March 21 and 25, 1994 to the DOS, USTR, and the EPA, I request that your written testimony address the following issues:

Foreign Refiner Issues

1. I understand that the firm Petroleos de Venezuela, S.A. (PDVSA) is owned or controlled by the Government of Venezuela (GOV), which is a good neighbor and friend of the U.S., and that PDVSA exports gasoline to the north-eastern U.S. and Puerto Rico for distribution almost exclusively by CITGO. PDVSA quite properly wants to continue such efforts. The EPA, with aid from the DOE, should indicate the amount of the gasoline and blend-stocks exported to the U.S. by PDVSA annually since 1989. Are the exports direct to the U.S. or through other countries? What is the principal U.S. markets of this product? Please identify all other exporters of refined gasoline to the U.S., including those from Canada, Europe, the Middle East, and the Virgin Islands, and the amount of such exports annually since 1990.
2. I understand that PDVSA did not participate in the RFG regulatory negotiations (reg. neg.) or sign that agreement. However, CITGO participated and the National Petroleum Association, of which CITGO is a member, signed the agreement. Is CITGO a subsidiary of PDVSA? To what extent must the EPA under the reg. neg. law provide for participation of foreign refiners? Who is bound by the reg. neg.? Am I correct in understanding that PDVSA and all foreign refiners thoroughly aired their concerns about the EPA proposals in the rulemaking process?
3. An August 14, 1992 letter to the EPA from the law firm representing PDVSA states that the July 1991 proposed rule allowed foreign refiners to establish their own baselines for reformulated and conventional gasoline, but a 1992 supplemental proposal precluded such refiners from establishing their own 1990 baseline to certi-

fy the gasoline and blendstocks exported to the U.S. as RFG or conventional gasoline. Did the EPA plan to regulate foreign refiners through the baseline established for importers like CITGO? What is wrong with that approach? Please explain the purpose of an August meeting between the GOV and EPA Deputy Administrator Sussman. Was a baseline for PDVSA tentatively agreed to at that meeting? Please explain the September compromise and the one considered in early December by the EPA, but not adopted. How do these differ from that proposed in the new rulemaking?

4. Do all panelists agree that the final EPA regulation covers both domestic refiners and importers of refined product and does not preclude importers or foreign refiners working through importers from participating in the U.S. market? Will the proposed rule apply equally to all foreign refiners and have they been consulted?
5. In regard to RFG certification during 1995-1997, I understand that the EPA developed four methods of setting a refiner's baseline for use in the simple model. Three of the methods required detailed historical information. The fourth is a "default" to the CAA baseline. Both domestic refiners and importers are required to use method one if the information is available. If the information is not available then domestic refiners must use method two, or, if data are not available to compute the baseline using method two, they must use method three. The domestic refiners cannot use method four, the "default" baseline; instead EPA's regulations require the generation of new data, if necessary, to compute its baseline using methods one to three. If method one data are not available, importers must use the "default" baseline. This, in effect, requires foreign refiners to use this baseline. The EPA had doubts it could satisfy the statute's requirement of "adequate and reliable data," because it reportedly was concerned about the reliability of data from foreign refiners and the ability of the U.S. to ensure enforcement, including levying fines and imposing prison terms on violators in foreign countries (as it can do on U.S. refiners). The EPA was also concerned about "gaming."

In a December 9, 1993 letter to EPA Assistant Administrator Mary Nichols, PDVSA's lawyer disputed this "gaming issue," saying "it simply does not provide a rational basis for the agency to refuse to permit the limited use of a foreign refiner's own baseline" and that the "focus of the 'gaming' issue throughout the

- 3 -

rulemaking has involved conventional gasoline, not reformulated gasoline."

(a) Does the EPA agree with this claim of PDVSA? Please explain how the pending EPA proposal differs from the December 1993 RFG rule. Will foreign refiners and domestic refiners be treated identically? If no, what are the differences?

(b) I understand that the RFG rule "simple model" sets a cap on sulfur, T-90, and olefins at the refiner's individual baseline and that PDVSA's gasoline exceeds statutory baselines for olefins and sulfur by significant amounts. How does the new rulemaking proposal deal with sulfur, T-90, and olefins? What is the NOx increase compared to the RFG rule? Some suggest that the increase is small. However, the EPA and the states in the northeast are striving to curb even the smallest NOx emissions to achieve attainment. Why is any such increase acceptable in the northeast? Is it a legitimate concern under Article XX of GATT?

(c) The 1994 DOS documents show that in 1995 PDVSA will not be able to produce gasoline under the EPA rule that meets the sulfur baseline and reach its goal of doubling its 1990 U.S. market share. Will the proposed rule allow PDVSA to double its market share? If yes, why is that acceptable from an environmental standpoint? Is that giving this firm a competitive advantage over U.S. firms?

(d) Are foreign refiners subject to U.S. environmental laws or anti-dumping laws for non-U.S. market gas? Does the EPA have the same jurisdiction over foreign refiners as it has over importers and domestic firms to enforce any data access arrangements? If the answer is no, is that a legitimate concern under Article XX of GATT? How is that concern addressed in the proposal? Does the proposal add burdens and costs to the EPA? What are the drawbacks to the voluntary access arrangements?

General Agreement on Tariffs and Trade (GATT) Issues

6. It is my understanding that PDVSA raised GATT issues in 1992 and that the DOS, USTR, and Treasury Department staff orally conveyed GATT concerns to the EPA beginning in April 1992. I also understand that Ambassador Kantor, in December 9, 1993 discussions with Administrator Browner, declined to press these GATT concerns and supported the EPA, despite urgings by USTR staff on

- 4 -

December 8 that he support the DOS. The DOS, however, continued to support the GOV. On December 14, 1993, Ms. Sally Katzen convened a meeting on the proposed regulation. It was agreed not to change the EPA decision, but to continue discussions with the GOV and PDSVA. On March 14, 1994 another meeting was held by Ms. Katzen at which the EPA position on the RFG rule of December 15, 1993 was changed on condition that the GOV withdraw its pending GATT panel request. On March 24, 1994, the EPA Administrator reported to the White House that the EPA had reversed itself and that the new agreement with Venezuela will provide better environmental protection than would be achieved if the U.S. lost a GATT challenge.

The documents available to the Subcommittee indicate that the GATT threat by the GOV appeared to panic the DOS and USTR officials participating in these meetings, even though there is no legal or other analysis among the documents by the DOS or the USTR about the GATT threat taking into account Article XX.

The documents show that early this year the DOS and the USTR used the GOV challenge under GATT to leverage the EPA to adopt the compromise. This action appears to set a precedent that the Subcommittee wants to address, taking into account the enclosed March 15, 1994 memorandum by representatives of the oil industry, the present ability of the U.S. under GATT to block GATT actions, the issue of retaliation, the changes in the Uruguay Round to GATT, the pending CAFE challenge by the European Union (see *Washington Post* article of June 10, 1994), the overall threat to U.S. environmental laws, and the issues of equity for our domestic refiners.

(a) I request that the USTR explain the applicable GATT provisions under which Venezuela entered a challenge, the defense afforded the U.S. under Article XX of GATT, the strict nature of this process, the history and sensitivity of GATT to national environmental policies, the ability of the U.S. to block adoption of a GATT panel report and preclude compensation under the present GATT and the Uruguay Round, the obligations under GATT to change our laws and regulations, the issue and basis for retaliation against U.S. markets under GATT today and the Uruguay GATT, including the extent to which retaliation can put pressure on the U.S. to change its rules or laws.

- 5 -

(b) I request that the USTR, the DOE, and the EPA also explain the nature of the GATT challenge by the Europeans to the CAFE law, which originated in our Committee, the status of the challenge, and the consequences to energy conservation and the environment in the U.S. and to the U.S. domestic auto industry. I am concerned that the Europeans want the U.S. to change the CAFE so that they can export their inefficient luxury cars to the U.S. market without incurring penalties, to the detriment of energy conservation and global climate efforts. What is the CAFE for model years 1985 to the present for BMW, Volvo, Audi, and Mercedes? What penalties have they paid annually since model year 1985? Does the CAFE law preclude them from averaging over their total fleet sold in the U.S.? Do they sell in the U.S. all models that they manufacture in Europe? Is that their choice?

(c) The Subcommittee appreciates EPA's April 11, 1994 assurance that "no final decision has been made regarding any amendments to reformulated gasoline rule" in response to our concerns that the U.S. commitments to Venezuela developed at Ms. Katzen's meeting and set forth in a DOS cable are not consistent with the Administrative Procedures Act (APA). However, if the EPA does not adopt the proposal, will this be construed as the U.S. breaking its word to the GOV and will the GOV reinstate its GATT challenge with the possible consequences that the Administrator feared in her remarks to the White House? It seems to me that suggests that the APA is being misused because of this threat. The EPA will have no alternative, particularly since the DOS and the USTR will continue to leverage EPA to finalize the proposal.

Implementation of RFG Rule Issue

7. On several occasions the Subcommittee has expressed concern about meeting the RFG rule requirements on time and about gasoline supply problems. I request that the DOE and EPA indicate what actions they have taken to monitor compliance by refiners, pipelines, etc. Are problems anticipated?
8. As you know, the final rule was to be promulgated in 1992. Under court order, that deadline was extended until December 15, 1993 and the final rule was announced at that time. On December 27, 1993 an ethanol proposal was published. However, the final RFG

- 6 -

rule was not published until February 16, 1994. On March 31, 1994, the EPA asked interested persons to submit questions "concerning the manner in which EPA intends to implement and enforce the regulation." Has the EPA received questions and provided answers? Do the questions raise issues pertinent to timely implementation?

9. The EPA Director of the Regulation Development and Support Division, in a letter to the American Petroleum Institute (API), said:

"Review of the final regulations, both with EPA and by outside parties, has identified several errata in the regulations as published in the *Federal Register* (e.g., typographical errors, omissions and inconsistencies).

* * *

"EPA also believes that several areas of the regulation would benefit from clarification.

* * *

"EPA believes that a Direct Final Rulemaking (DFRM) is the most appropriate means of correcting and/or clarifying the times listed in the enclosure because EPA's intended changes are not expected to substantively impact the rule, nor the environmental goals of the program, and thus are not expected to be controversial."

The DFRM has yet to be issued. I understand that if the EPA does issue a DFRM, it will be effective 60 days after publication, unless there are objections. Please explain this DFRM process and why after so much time has passed since the statutory date for the rule that there are so many implementation problems. (I understand that the industry sought guidance from EPA about the baseline data due on June 1 and requested a response prior to June 1 as part of the DFRM, but it was not provided.) To what extent is the EPA delaying the DFRM because of a lack of resources due to budget cuts, reprogramming, and the ethanol and foreign refiner rules?

- 7 -

11. In a May 18 letter to the EPA, the API states that the RFG rule specifies use of "EPA GC-MS method for measuring aromatics," rather than the use of "ASTM method D 1319-93." Apparently, the EPA is allowing the industry to use the old method until 1997 "provided that it is correlated with EPA's GC-MS method." The API says the EPA method "is not fully defined." API says that because of this, the industry cannot make a correlation with D 1319 which will require refiners to "purchase new equipment, install it, and ensure that it is operating properly. It is highly unlikely that all this can be accomplished by September when some refiners will have to begin RFG production." Please explain why the EPA is prescribing such a method, particularly when its Ann Arbor laboratory is still refining it. What is its origin and purpose? What was wrong with the ASTM method?

Ethanol Mandate Issues

12. One oil company notes that in the past 30 years there has been a proliferation of product grades in the U.S. This firm says that the most dramatic increase came from EPA rules under the 1990 amendments to the CAA. More than 250 separate grades will exist in 1995, compared to eight in 1965. The pipelines can handle this under normal circumstances, but consider the enclosed article about the Colonial Pipeline. The firm contends that the number of tanks at each terminal "is a critical factor in determining how many products are handled by a pipeline." The firm believes the ethanol rule adversely affects pipeline terminals. It adds:

"Another operating problem concerns the "trans-mix" or "interface" material in a pipeline ***. Since one product grade abuts the preceding one and the trailing one as they move along, some mixing occurs at the interface points. Today, the "trans-mix" is "downgraded," i.e., pumped into the tank which receives the lower grade of the products interfaces -- thus no extra tankage for trans-mix is needed. New CAAA regulations not only dramatically increase the volume and number of trans-mix materials, but EPA has also yet to rule on how to handle the trans-mix liquids. Even if downgrading is allowed, there is a loss in value. ROR further exacerbates the problem because it mandates the usage of more product grades."

The Subcommittee requests that the EPA and DOE address these matters in addition to responding to the questions in our earlier letter. Is the distribution system being taxed to its limits by the existing rule? What will the ethanol mandate do to it?

Other CAA Implementation Issues

13. Congressman Ralph Regula and others proposed a limitation on funding for the Transportation Department concerning section 176(c) of the CAA. His concern relates to the requirement for a demonstration of nitrogen oxide (NOx) reductions in ozone nonattainment areas. The provision is not specifically required by the statute. The proposed rule did not include the requirement. It was adopted in the final rule and has been the subject of controversy in Ohio and elsewhere. State and local officials believe it will have a chilling effect on transportation projects and related jobs. Also, in some areas like Wisconsin, officials know that NOx can exacerbate the ozone problem.

The EPA's June 8, 1994 letter to the Appropriations Committee opposing the limitation explains:

The Environmental Protection Agency and the Department of Transportation have been working together closely to offer assistance to state and local governments to ensure smooth implementation of the transportation conformity requirements. In addition, EPA is in the process of revising and clarifying its policies regarding Clean Air Act Section 182(f), under which areas that can show they meet the ozone standard can be relieved of the transportation conformity's interim NOx requirement.

(a) Please explain the requirement and its purpose, the need for it, the legal basis for it, and why it was adopted in such apparently rigid form for all ozone nonattainment areas, even those as different as Wisconsin and Houston, Texas? Did the National Academy of Sciences study under section 185B of the CAA conclude that NOx is a problem for all ozone nonattainment areas?

(b) Section 182(f) requires determinations when the EPA approves state implementation plans or revisions. That could be many months from now. In a March 30, 1994 letter to the Governor of Ohio, the EPA Administrator said she would soon

- 9 -

sign a notice announcing "EPA's intention to grant conditional exemptions of the conformity NOx requirements for areas that have not violated the ozone air quality standard in the past three years under an expedited process." On June 8 the EPA approved a "simple waiver application process." How will the process resolve Mr. Regula's concerns and those of others?

(c) I understand that the EPA also wants to apply conformity to attainment areas, but has postponed the matter. Please explain why EPA believes this is good policy. Does the CAA require it? Does it authorize it?

14. I understand that on March 17, 1994, the EPA issued preliminary findings of the Lake Michigan Ozone Control Program which shows that some moderate areas in Wisconsin and Michigan contribute a small fraction of total regional emissions, while they are the recipient of ozone produced by emissions from upwind severe nonattainment areas in Illinois, Indiana, and Wisconsin which have much later attainment dates. In July 1993, the EPA wrote Senator Riegle that the EPA was exploring potential options about the failure of these areas to meet the standards by the shorter dates mandated in the CAA and about the flexibility that may be available under the CAA to avoid the bump up of areas that experience continuing air quality violations attributable to upwind areas. I agree that Congress did not intend that a Moderate area with a 1996 deadline should be bumped up to Serious because of the transport of pollution from another nonattainment area that has a later deadline to control that pollution. The change in categories should be due to the area's own contribution to its problem.

In a March 7, 1994 letter to Senator Levin, Assistant Administrator Mary Nichols said:

"However, EPA recognizes that ozone transport may make it very difficult if not impracticable or impossible for Muskegon and Grand Rapids to comply with the requirements that these areas demonstrate or actually achieve attainment by 1996. EPA is continuing to develop a policy to address this very complicated problem. This policy must account for the national scope of this issue, and in particular its potential application to the Northeast United States that Congress established as an ozone transport region

- 10 -

under section 184 of the Act. This policy must also account for the timetable for completing ozone air quality modeling and for developing SIP control measures for all of the areas involved, including those causing the problem upwind as well as those impacted downwind."

I understand that Massachusetts also wrote to the EPA on January 14, 1994 about this matter and that in March the EPA noted that a "tension exists" between the EPA's "staggered attainment deadlines" and the transport of pollution from more polluted areas to less polluted areas.

I applaud the EPA for addressing this concern. However, I am concerned that it is still not resolved and, just as importantly, that the EPA is possibly considering imposing additional requirements on the upwind states that may cause controversy to the detriment of these Moderate Areas. I would appreciate learning more about the status of this flexibility policy for the Great Lakes region, the Northeast, and elsewhere.

15. Enclosed are several articles critical of the Employee Commute program under section 182(d)(1)(B) of the CAA and EPA "Talking Points" about the program. Please explain how this program works in those portions of consolidated metropolitan statistical areas where public transit is inadequate or non-existent and other modes of transit are not workable. What flexibility is afforded? Also, Congressman J. Dennis Hastert is concerned about the classification of the Chicago areas as Severe. He says that Illinois officials believe this to be in error. Is their belief correct and what is being done about it?

ONE HUNDRED THIRD CONGRESS

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U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, DC 20515-6116

June 28, 1994

Mr. Alexander F. Watson
 Assistant Secretary for Inter-
 American Affairs
 Department of State
 2201 C Street, N.W.
 Washington, D.C. 20520

Ms. Susan F. Tierney
 Assistant Secretary for Policy,
 Planning, and Program Evaluation
 Department of Energy
 1000 Independence Avenue, S.W.
 Washington, D.C. 20585

Ms. Mary Nichols
 Assistant Administrator for Air
 and Radiation
 Environmental Protection Agency
 401 M Street, S.W.
 Washington, D.C. 20460

Dear Mr. Watson, Ms. Tierney, and Ms. Nichols:

At our June 22, 1994 hearing, I indicated that, pursuant to Rules X and XI of the Rules of the House of Representatives, the Subcommittee would have additional questions relating to the implementation of the 1990 amendments to the Clean Air Act. Enclosed are the Subcommittee's questions, as well as questions by Representative Sherrod Brown. I request your response by July 20, 1994.

Also, I reiterate my request at the hearing that the Environmental Protection Agency (EPA) and the Department of Energy (DOE) keep the Subcommittee informed of any actual or anticipated problems that will affect compliance with the New Year's Day 1995 date for providing adequate supplies of reformulated gasoline (RFG) and conventional gasoline and for preventing the dumping of components of gasoline into conventional gasoline. Also, the EPA should keep the Subcommittee informed of any delay in the promul-

Page 2

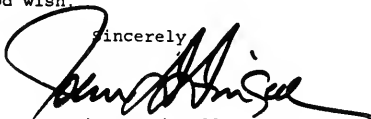
gation of needed guidance, interpretations, clarifications, and corrections to the December RFG rule.

The Subcommittee is continuing to work with the Environmental Protection Agency and others in the Administration to obtain the remaining documents relating to ethanol matters and appreciate the cooperation received thus far in this regard.

Please include this letter and our earlier correspondence related to the June 22 hearing in the pending rulemaking records relating to the foreign refiners baseline and the ethanol mandate.

With every good wish,

Sincerely,



John D. Dingell
Chairman
Subcommittee on Oversight
and Investigations

Enclosure

cc: The Honorable Dan Schaefer, Ranking Republican Member
Subcommittee on Oversight and Investigations

The Honorable Sherrod Brown, Member
Subcommittee on Oversight and Investigations

The Honorable Leon E. Panetta, Director
Office of Management and Budget

Ms. Sally Katzen, Administrator
Office of Information and Regulatory Affairs
Office of Management and Budget

Mr. Ira Shapiro, General Counsel
Office of the United States Trade Representative

Dr. Helmut A. Merklein, Administrator
Energy Information Administration

Ms. Jean C. Nelson, General Counsel
Environmental Protection Agency

into a bilateral agreement with Venezuela rather than a rule?

4. **Ms. Tierney**, I request that the Energy Information Administration (EIA) conduct an analysis by October 1994 which examines the final RFG rule, the many guidances, interpretations, etc., the pending rules (if adopted), the ability of the distribution system to handle these matters, including identifying any pipeline and tankage problems, the extent to which smaller refiners will not produce RFG and potentially create supply problems, and all other relevant factors affecting gasoline supplies nationwide, regionally, and by state. The analysis should include expected RFG supply sources beginning December 1, 1994 for each Sub-PAD in PADD I from local refineries, pipelines, barges and imports.
5. **Ms. Nichols**, I understand that the CAA requires EPA to establish appropriate tolerances for RFG. Has that been done and are they consistent with Reg. Neg.? If not, why not? What other rules are needed under section 211(k) of the CAA relative to RFG and related matters and what is the status of such rules?
6. **Ms. Nichols and Ms. Tierney**, at the Subcommittee's hearing, EPA and DOE claimed that the industry had adequate time to prepare for compliance with the RFG rule. EPA and DOE noted that the final RFG rule issued in February 1994 was substantially similar to the parameters of the rule contained in the Reg. Neg. agreement. Of course, the EPA and DOE testimony did not mention that in 1993 the EPA also proposed the Bush ethanol rule. According to EPA documents provided to the Subcommittee, that proposal was not consistent with the Reg. Neg. (see, for example, the Subcommittee's Exhibit 8 which is enclosed). That proposal created uncertainty which was not resolved until December when the EPA abandoned it. In a letter to the Subcommittee on June 21, 1994, the American Petroleum Institute (API) said:

Even though Congress provided the industry with over three years lead time, the refining industry now has only three months before the RFG production will begin and the industry still does not know what fuel it must sell on January 1, 1995.

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...The issues needing clarification are not minor ones, but are major concerns that directly affect the implementation of the RFG rule. For example, refiner baselines were due to EPA by June 1, 1994 but the industry never received crucial

- 3 -

guidance (in the form of a direct final rule) that was needed for preparing their baseline submissions.

As you know, the refiners form only a part of the industry that provides gasoline to consumers.

The Secretary of Energy, in her June 20, 1994 reply to my letter of April 21, said that the DOE does not "anticipate any significant shortages or pricing problems" as a result of the RFG requirements. The Subcommittee's concern is the lateness of final promulgation of the RFG rule, the delay in providing guidance, clarification, and corrections of the rule and needed interpretations, the addition of two new proposals, and the many other factors that could contribute to forming shortages or pricing problems. The Subcommittee, like the DOE, is particularly concerned about the distribution system and the logistics generally. Has DOE or EPA analyzed the capabilities of the product distribution system to handle numerous grades of gasoline, storage capacity constraints, etc., to ensure that there will be adequate supplies of RFG? If yes, please provide the results. If no, please explain why not.

7. Ms. Nichols, the 1990 baseline values for certain fuel properties are, as the API points out, a vital element of complying with the simple model RFG requirements. The rule provided industry with the opportunity to adjust actual 1990 refinery production documentation if 1990 was an unrepresentative year. It is my understanding that industry submitted an adjusted and an unadjusted baseline. Production of RFG is likely to begin as early as September. If EPA has not approved these baselines by September can industry utilize their submitted adjusted baseline for purposes of producing RFG and conventional gasoline for 1995?

In the case of diesel fuel, the EPA had to exercise prosecutorial discretion. What is the EPA plan regarding enforcement after December 1, 1994?

8. Ms. Tierney, the DOE reply of June 20 to my letter of April 21, 1994 includes a February 16, 1994 memorandum (Tab 7) from Mr. Carmen Difulio to Mr. Charles Kyle Simpson. It describes the EPA proposal and sets forth a so-called "Stakeholders Views" and Mr. Difulio's opinion as follows:

Stakeholder groups are predictably polarized by EPA's proposal. The methanol industry and gasoline refiners oppose it. Farm states and the ethanol industry support it. The proposal particularly benefits Archer Daniel Midlands since it would increase the price of ethanol. In my opin-

- 4 -

ion, the proposal will not increase ethanol investment over currently planned capacity. Nonetheless, the proposal enjoys support from farm interests since EPA and ethanol advocates claim that it will significantly increase ethanol production.

Do you agree with this view and opinion? The memorandum also states that DOE has completed an analysis of EPA's ethanol proposal that could be provided to the EPA even though the comment period ended.

In a memorandum of February 16 to you (Tab 6), the DOE staff mentioned the controversial nature of the analysis and suggested three options on how to proceed. They recommended a peer review option to selected reviewers. In a March 22, 1994 memorandum (Tab 13) to you, marked "confidential," the DOE General Counsel concurred with your plan to seek peer review. He called it a "judicious step in light of the significant implications of DOE's preliminary findings." He also agreed with your plan to share the analysis with the EPA "without delay." He then said:

Finally, I would recommend that the draft technical analysis be presented objectively, without any policy evaluations. Given the controversy surrounding this rulemaking action and the time constraints under which EPA is operating, it is certainly prudent to release these preliminary findings now for peer review, rather than waiting until the draft final rule is submitted to OMB for interagency clearance.

Another undated memorandum (Tab 8) from you to Messrs. White and Nordhaus concludes:

The EPA ethanol proposal is estimated to increase ethanol use by between 30% and 90%. Under the most likely scenario, oil use and greenhouse gas emissions would increase (3% and 1% respectively) and fossil energy use would decrease (2%). Achieving positive greenhouse gas impacts would require that at least 25% of the ethanol used in reformulated gasoline be derived from cellulosic feedstocks. This is unlikely to occur until after the year 2000. There are no likely circumstances under which the proposal would reduce oil use.

The memorandum alerts Messrs. White and Nordhaus that "these results will be controversial and could undercut the legal basis for the proposal." You sought their findings and com-

- 5 -

ments by March 4, 1994. You also said that because of the "complicated nature of the analysis," you planned to circulate a "staff draft for peer review." When was the draft analysis provided to the EPA and made public and when was the peer review started and completed? Now that the analysis is final, please provide the policy review that Mr. Nordhaus urged you not to provide to the EPA.

In a March 8 memorandum (Tab 9) to you, Mr. Carmen Difiglio states:

I have received word from General Counsel that their review of our analysis will take about a week to complete. In the meantime, we have begun to consider the effect of changing our ethanol plant efficiency assumptions. We have assumed that all new ethanol plants have the same overall efficiency and carbon emission characteristics of the industry average. Considering the variety of different sizes and designs of new plants this is probably a good assumption. However, we have begun an analysis of how the results would be affected if all new ethanol plants represented the best practice.

The memorandum adds:

In our analysis of the energy impacts of the mandate, the negative oil, energy use and CO₂ consequences stem from the winter ethanol portion of the mandate. Slightly positive oil and energy use benefits are shown for the summer ETBE mandate by itself. My recommendation is to support the summer ETBE mandate on the basis of reduced emissions and energy use. The Department could actively support the summertime ETBE mandate and oppose the wintertime ethanol mandate or simply support the ETBE mandate and remain silent on the winter mandate.

The ethanol industry clearly benefits from the summer and winter mandates since they guarantee a market and can inflate ethanol prices. However, if the ethanol industry only received the summer ETBE mandate, they would effectively be getting what they originally wanted, *i.e.*, the 1 psi vapor pressure waiver. The vapor pressure waiver only affected the summer use of ethanol, not the winter use. The industry originally was content to compete with MTBE so long as gasoline did not need a lower vapor pressure in order to

- 6 -

use ethanol during the summer. A summertime ETBE mandate effectively provides the industry more benefits than a 1 psi waiver since ethanol must be used, regardless of its market price. Even with the 1 psi waiver, it is unlikely that ethanol would have captured more than 30 percent of the oxygenate market, and it could have been less.

What is the status of that recommendation?

Finally, an "Issue Summary" (Tab 15) states:

EPA's legal justification for this proposal rests on claimed reductions in U.S. oil use and emissions of greenhouse gases resulting from the use of renewable oxygenates.

DOE is participating in interagency meetings on this proposal. A final rule is expected in June. Major issues include:

- The Department of Agriculture has proposed to bar trading between the summer and winter program. This would insure that ETBE is used during the summer. DOE staff has opposed this proposed change.
- EPA is considering phasing in the program: 15% in 1995 then 30% in 1996 and thereafter. DOE staff has supported this proposed change since significant logistical obstacles would make it difficult for refiners to respond to a 30% mandate in less than 6 months.
- EPA is considering adding a "shoulder season" to prevent commingling of ethanol-blended reformulated gasoline with ether-blended reformulated gasoline. This would be achieved by lengthening the summer season so that commingled gasoline does not get used during the summer ozone season. DOE has not had an opportunity to comment on this proposal but intends to oppose such a change.
- EPA staff has acknowledged that it has no capability of its own to provide an assessment of the proposal's impacts on oil use or greenhouse gas emissions and is relying on DOE to help them do so. DOE provided an analysis of these impacts to EPA and the Department of Agriculture. We are answering

their technical questions and responding to their requests to modify assumptions and input data.

Please provide a list of such meetings and of the attendees for each. Why did the DOE oppose the Department of Agriculture's ban on such trading? Please explain the "logistical obstacles" that would make it difficult for refiners to respond to a 30% mandate and please explain how a phasing in will lessen those obstacles. What is the impact on the distribution system of either proposal? Please explain why the DOE opposes a "shoulder season."

9. **Ms. Nichols**, has EPA/DOE analyzed the capability of MTBE facilities to convert to produce ETBE? What logistical problems will be encountered if ethanol must be blended with RFG?
10. **Ms. Nichols**, while I support the use of ethanol, I am also concerned that the EPA, in proposing and promulgating rules, ensure that they comply fully with the applicable law which, in this case is section 211 of the Clean Air Act. EPA's integrity in rulemaking is, at the very least, open to question when the EPA acts otherwise. After examining Exhibit 8, together with Subcommittee Exhibit 4 which is a February 18, 1993 memorandum marked by the EPA as "Privileged and Confidential" from an attorney in EPA's Air and Radiation Division, and the above DOE materials, I am troubled to find that the EPA proposed the Bush rule with so little legal justification and question whether the most recent ethanol mandate is any better legally or otherwise after reading these exhibits.

At the hearing, I requested that the EPA consider the EPA concerns (pages 15-19) expressed in the July 1993 briefing memorandum (see Exhibit 8) about the Bush proposal and explain how and to what extent those concerns are eliminated or substantially mitigated by the EPA's latest proposed ethanol mandate. In providing this response, please take into consideration exhibit 4 and the DOE analysis referenced above.

11. **Ms. Nichols**, since writing to the EPA in our June 13 hearing letter about transportation conformity, the Administrator published a "General preamble for future proposed rule-makings" which I understand is the notice she referenced in her letter of March 30 to the Governor of Ohio. I do not understand how that notice is helpful to Ohio and other states. It is not a rulemaking and it states that the interpretations therein are not binding "as a matter of law." In addition to responding to the Subcommittee's question in my June 13 letter about conformity, please

- 8 -

explain how this notice can grant conditional exemptions of the conformity NOx requirements and why is it not applicable in the Northeast?

Also, why does the EPA want to apply these conformity requirements in attainment areas. Please explain the legal basis for that policy. What is the status of that idea?

12. Ms. Nichols, Michigan submitted a redesignation for Southeastern Michigan last November (see enclosed letters from Governor John Engler). I understand that EPA's Region 5 has supported it, but Headquarters has not yet acted. The Governor believes that the state has performed all the requirements to achieve such redesignation. However, your staff recently told us that there are still some problems. I would appreciate your looking into the matter and providing me with an update of the status of this request, including identifying any actions that the state must take and why.

**Questions by
The Honorable Sherrod S. Brown**

1. As you know, my concerns regarding the RFG rule have centered around the process in which this decision has been made and the effect it will have on my constituents in northeast Ohio. Recently, we have witnessed the difficulties encountered during the introduction of low sulfur diesel (which is only a minor portion of the fuel market) when the government only allotted a one month transition period for that specific fuel to be incorporated into the distribution system.

As you know, this new rule will effect nearly 1/3 of the entire U.S. gasoline market and billions of gallons of fuel. Faced with the fact that there still is not final rule on the ethanol provision, and we have barely six months until the new product must be available across much of America, I am concerned about our ability to meet this deadline. Consequently, is the EPA concerned about recreating similar spot shortages and/or price spikes as we make this dramatic change in such a short time frame? Is there enough time for all effected industries to meet such a deadline? What studies has EPA done on this?

In addition, it is my understanding that there are special requirements for the storage and transportation of ethanol and gasoline. Without a final rule in place, have you studied the impact on pipelines, barges, rail, and trucks, and is there sufficient capacity to move this new product? To your knowledge, have the affected industries proceeded with the necessary capital expenditures to build the new infrastructure required for this change to ensure that they meet the January 1, 1995 deadline?

Do you anticipate any cost difference to the consumer once the new RFG is online? How much difference?

Another of my concerns centers around the availability of sufficient tank storage space. The tight time frame may very well prohibit producers from being able to build new storage tanks for RFG and, therefore, may require them to utilize existing storage tanks to hold this new product, at the expense of other stored fuels. Since I believe these operators are good business people, I assume they will displace their lower value products to make way for this new, mandated product during this time of tank shortage. I understand that in many cases the lower value products are home heating fuel. Could we potentially see a shortage of this product this winter due to a displacement of this

- 10 -

product and a lack of sufficient tank space across the country? Have you considered this possibility?

In short, as we approach the deadline of January 1, 1995, has EPA given enough time to make sure that the market can make a seamless transition from one product to another?

2. It is my understanding that because of this mandate, demand for ethanol will increase in the Northeast, West, and South. In order to meet demand, ethanol supplies in the Midwest will be shifted to these new areas creating a strain on midwestern supplies. Have you studied the effects of regional shifts in supply of ethanol on the consumer? Can you assure me that regional shortages and price spikes, principally in the Midwest, will not occur?

Purvin and Gertz report (tab 1) that Latin America is the principal foreign supplier of gasoline to the U.S., and will also be the principal supplier of reformulated gasoline. In addition to Venezuela's 50,000 b/d reform potential, even with no EPA compromise, the Hess refinery in the Virgin Islands "would have no trouble" meeting EPA standards and supplying about 45,000 b/d of reformulated gasoline to the U.S. market.

Purvin and Gertz believe the Europeans (France, Italy, Spain, Netherlands and U.K.) will be challenged to comply with both European and U.S. environmental programs simultaneously. They note that low margins on U.S. gasoline have reduced European gasoline exports to the U.S. from 150,000 b/d a few years ago to 50,000 b/d in 1993. Purvin and Gertz still anticipate, however, that the European refinery slate will be capable of supplying over 50,000 b/d of reformulated gasoline to the U.S.

Purvin and Gertz also report that Canada and Saudi Arabia could supply 50,000 b/d and 20,000 b/d plus of reformulated respectively.

Comment: The Purvin and Gertz study helps to define the universe of potential foreign reformulated gasoline refiners and does not identify any unexpected major refiners of reform -- which should comfort the EPA to some extent. While there are more reform capable European refiners than we had anticipated, the aggregate European volumes are not large and the report notes that European reform exports to the U.S. may be displaced on the margin by reform from the more proximate Virgin Islands. We will share the report informally with EPA, if nothing else to demonstrate that we will continue our constructive dialogue with them.

The findings of the report may also be of use in convincing the Venezuelans to address the issue bilaterally and not before the GATT. Although most foreign refiners that Purvin and Gertz identified are not expected to have problems conforming to EPA's statutes, a strong Venezuelan push in the GATT would only attract the attention of third parties, potentially bogging down the process, increasing potential USG liabilities and diluting possible GOV benefits. We will also sensitize EPA to the risk of third party complaints, which should provide added impetus for them to resolve the outstanding issue with Venezuela. An immediate and positive USG response to Minister Parra's written request for consultations will be an essential element of our strategy to diffuse this trade dispute on a bilateral basis.

Drafted: EB [redacted]
1/11/94 7-1476

Cleared: EB [redacted]
ARA [redacted]

cc: Embassy Caracas

Privileged and Confidential
February 18, 1993

Ex 4

MEMORANDUM

SUBJECT: Legal Concerns on the Ethanol Provisions in the Reformulated Gasoline Supplemental Proposal

FROM: John Hannon, Attorney
Air and Radiation Division

TO: Michael H. Shapiro
Acting Assistant Administrator
for Air and Radiation

A supplemental notice of proposed rulemaking for the reformulated gasoline program was recently forwarded to the Federal Register for publication. It was signed by former Administrator William Reilly, and contains among other provisions a detailed proposal concerning gasoline blends containing ethanol or other renewable oxygenates. Internal and inter-agency review of this supplemental proposal was completed in a very expedited time frame. For many controversial issues, invitations for public comment on a variety of options was used to temporarily resolve internal agency objections and provide flexibility for the new administration.

The ethanol provisions are expected to be very controversial. This memorandum describes for your benefit certain legal concerns that we expect will be raised during the public comment period.

1. Background and description of proposal

Under section 211(k)(1), EPA's reformulated gasoline regulations must "require the greatest reduction in emissions of [toxics and ozone forming VOCs] achievable through the reformulation of conventional gasoline, taking into consideration the cost of achieving such emissions reductions, any nonair-quality and other air-quality related health and environmental impacts and energy requirements." This authority is limited by section 211(k)(3), which under our interpretation establishes minimum levels for the VOC and toxics emission reduction standards (15% for Phase I, and 20-25% for Phase II). Assuming an adequate justification under the factors noted in section 211(k)(1), EPA appears authorized to establish a less stringent performance standard for ethanol blends than for other reformulated gasolines, within the constraints of the minimum reductions required by section 211(k)(3). The SNPRM's ethanol provisions rely on this legal theory.

Under the reg neg proposal, VOC reductions under the SM were to be achieved from limits on the oxygen content and on the Reid vapor pressure (RVP) of reformulated gasoline. RVP is measured in pounds per square inch (psi), and is a measure of gasoline's volatility or propensity to evaporate. Motor vehicle emissions decrease as the RVP of gasoline decreases, primarily through reductions in evaporative and other non-exhaust emissions. The oxygen content also reduces emissions, through reductions in tailpipe emissions.

Under the SM, the RVP standard for RFG sold in the northern parts of the country would be 8.1 psi, while for southern RFG it would be 7.2 psi. The minimum oxygen content of RFG gasoline was set at 2.0% (wt.).¹ The same standards applied whether the gasoline contained ethanol or not. Since ethanol increases the RVP of gasoline by about 1 psi at typical blending percentages, persons wishing to market ethanol blends of RFG would need to purchase a sufficiently low RVP gasoline for blending such that ethanol's 1 psi RVP boost would not cause the final blend to exceed the standard.²

The ethanol industry claimed this would effectively exclude them from the RFG market. They claimed requiring sub-RVP blendstock would either make ethanol blends uneconomical, or would place their fate in the hands of the oil industry, who would intentionally refuse to produce it such blendstock. In either case, this would exclude ethanol from the RFG market. They fought to obtain a one psi waiver for ethanol blends as a solution to this problem. EPA, the oil industry, states and others opposed the one pound waiver, claiming ethanol would in fact be economical and sub-RVP blendstock would be available. In addition, a one psi waiver was both unlawful and would significantly reduce the emissions benefits of the reformulated gasoline program.

President Bush resolved this by directing that EPA propose changes to the RVP standard for RFG in the north that would effectively amount to a one psi waiver, but would still be environmentally neutral when compared to the prior proposal. For RFG without ethanol the RVP standard would be tightened from 8.1 psi to 7.8 psi, while the standard for ethanol blends would stay at 8.1 psi. The tighter standard on non-ethanol blends was designed to offset the RVP boost from ethanol blends composing up to 30% of the market. Similar but less extensive changes were to be proposed for southern RFG.

¹ These were proposed as "per-gallon" standards for RFG. For refiners that averaged, slightly more stringent standards applied. The SM proposal is discussed in more detail later.

² The 1 psi increase in volatility for ethanol blends causes a significant increase in motor vehicle emissions.

The SNPRM takes an apparently aggressive approach in implementing President Bush's directive. For gasoline marketed in the northern half of the country, the proposed Simple Model RVP standard would be 7.8 psi if ethanol is not used. The RVP standard is increased corresponding to the percentage of gasoline blended with ethanol, ending back at 8.1 psi if a refiner blends ethanol into 30% or more of its RFG production. A similar standard setting process is used when ETBE, an ethanol based ether, is used. The same approach is taken for the VOC performance standards applicable when gasoline is certified under the Complex Model.

The SNPRM establishes a procedure whereby each refiner or blender starts with a "right" to blend ethanol in up to 30% of their production and obtain the corresponding reduction in the stringency of the RVP or VOC standard. These "ethanol blending rights" may be traded, allowing refiners to use ethanol in up to 100% of their gasoline with a corresponding loosening of the RVP standard above 8.1 psi. Each year EPA would require a commitment from refiners specifying the percentage of their production that would be blended with ethanol. If a refiner fails to either trade or commit to use their full 30% ethanol blending rights, EPA would reallocate these rights to other refiners and the refiner who "lost" these rights would be penalized in future years for not using or trading the full 30%. EPA also proposed that refiners could sell or trade commitments to blend. Combining this with RVP trading (discussed later), ethanol use could in effect be transferred from areas like New York to the midwestern cities like Chicago that are much closer to the ethanol production facilities and more used to the additive.

As this brief explanation indicates, the ethanol provision is both very complicated and seemingly designed to provide strong incentives for maximum ethanol use. It appears to go far beyond removing a potential barrier to ethanol's participation in the reformulated gasoline market.

2. Legal issues

Justification for the ethanol incentive program

♦ The proposal contains no more than the rudiments of a factual and policy justification. The preamble itself contains a few paragraphs paraphrasing President Bush's October 1992 announcement, reciting certain allegations concerning the benefits derived from ethanol use. The record support for these claims is almost non-existent. In addition to a clearly inadequate factual justification, there is also no discussion of a conceptual framework for taking into consideration the various statutory factors such as "energy requirements."

The lack of factual justification in the SNPRM does give EPA the maximum flexibility on these factual and policy issues, as we have not taken a clear position on them. However, OGC discussed

it's concern with OMS that this lack of a justification would be a fatal defect to finalizing this proposal. It was understood that another supplemental notice would be required if EPA decided to finalize the ethanol provisions. An additional supplemental notice would help to provide a record support for EPA's final position, and would be required to satisfy notice and comment requirements.

♦ While a missing factual justification would in certain cases be curable, there is real concern that the ethanol proposal exceeds EPA's authority even with a clear justification. There is a significant risk that a court would see these provisions as improperly elevating national energy and other policies into the central emphasis of the program, displacing the statute's primary focus on emissions reductions. The preamble to the SNPRM attempts to avoid this by casting the provisions as necessary to remove barriers to full market participation by ethanol.

Environmental neutrality

♦ The SNPRM claims that the ethanol provisions are environmentally neutral when compared to the proposal agreed upon in regulatory negotiations - the tighter standards for non-ethanol blends should offset the increased emissions from the ethanol blends. However, the ethanol provisions fail to account for emission increases from the commingling of ethanol blends of gasoline with non-ethanol blends. Since the volatility of gasoline blended with ethanol is not linear with the amount of ethanol, commingling or mixing of ethanol blends with non-ethanol blends results in additional emission increases over what would occur without commingling. This mixing can occur, for example, in the underground storage tanks at the retail level or in motor vehicle gasoline tanks. The proposal also does not account for the emissions increases stemming from distillation differences between ethanol and non-ethanol blends.

EPA arguably would have discretion to exclude commingling emissions from its performance standards, however this would be inconsistent with the agency's emphasis to date on regulating actual in-use emissions over the life of covered vehicles. The proposal invites comment on the commingling issue, e.g. on the amount of commingling, the emissions impact, and possible regulatory approaches.

Base oxygen content for determination of the 30% market share

President Bush's October 1992 announcement and the SNPRM's proposals use a 30% market share for ethanol blends as the benchmark for standard setting. However, the President's announcement did not describe the amount of ethanol used to determine the 30% market share. Traditionally ethanol has been

blended at 3.5% (wt.)³ to take advantage of various state and federal tax benefits. Reformulated gasoline under section 211(k) must contain a minimum 2.0% (wt), with a provision for trading oxygen credits between refiners. The SNPRM proposes basing the 30% market share on 2.7% (wt.) ethanol, basically as a compromise between 2.0% and 3.5%.

EPA should have significant discretion on this issue, however the proposal fails to provide a substantial explanation for picking 2.7% oxygen as the benchmark. Since 2.7% would lead to more ethanol use, this exacerbates the general concern about a lack of justification for the ethanol incentives. In addition, using 2.0% instead of 2.7% would help to minimize the commingling problem noted above.

The SNPRM seeks comment on what percentage is appropriate, from 2.0% to 3.5%.

RVP/VOC performance trading

♦ Section 211(k) explicitly authorizes trading programs for compliance with the benzene and oxygen content requirements, and EPA's prior proposal included such credit programs. Under the reg neg agreement, EPA proposed an additional credit program allowing refiners to comply on average with the VOC and toxics standards. Section 211(k) does not explicitly authorize this form of averaging.

EPA claims that averaging increases refiner flexibility, thus allowing refiners who average to save money even if the standard is more stringent. Averaging thus provides EPA with a basis for determining that a more stringent standard is achievable. Section 211(k)(1)'s general authority to require the "greatest achievable reductions" should therefore authorize EPA to allow averaging. This legal rationale is modeled after a similar approach successfully employed in establishing emissions standards for heavy-duty motor vehicle engines. In line with this, EPA previously proposed more stringent toxic and RVP standards when compliance was met on average.

♦ EPA's recent proposal would allow refiners to trade RVP or VOC performance credits, as well as average. Such trading between refiners would further increase refiner flexibility, making it easier to use ethanol blends. However, EPA did not propose a more stringent standard to go along with this increase in refiner flexibility. There is no clear justification why the more stringent standard used with averaging would still be appropriate for purposes of trading. This leaves the RVP trading subject to attack as unauthorized.

³ This corresponds to 10% (volume), the maximum amount of ethanol that may be blended into gasoline under a waiver issued by operation of law under section 211(f)(4) of the Act.

Southern opt-in areas

♦ Section 211(k)(6) authorizes states to opt-in to the federal RFG program. EPA then sets the effective date for the RFG requirements in those ozone nonattainment areas, but retains authority to extend the effective date for up to two years based on a finding of insufficient domestic production capacity. To date, most of the eastern seaboard states have opt-ed in, as well as Texas.

♦ President Bush's October announcement included a provision whereby southern areas of the country that had opted-in to the federal RFG program could choose whether or not the ethanol provisions would apply in their jurisdiction. If they chose the ethanol provision, it would be structured around a 20% ethanol market share instead of a 30% share. EPA's SNPRM includes this provision.

♦ It is highly questionable whether section 211(k) authorizes a state to choose what federal RFG standard applies in its borders. Section 211(k)(6) authorizes states to opt-in to the federal program, in effect allowing a state to determine the geographic scope of the federal program. It does not authorize a state to choose the performance standards applicable in the area. It is also very doubtful that EPA could defend a federal rule that bases the stringency of a federal RFG standard solely on whether or not a Governor requested such a standard.

♦ The SNPRM raises these legal concerns, and invites comment an option whereby a southern state could at any time petition EPA to revise the RFG regulations to include appropriate incentives for ethanol use.

**Ethanol in
Reformulated Gasoline**

Briefing to the

Administrator

7/9/93

Et 8

Presentation Overview

- 3 Main Issues for Reform FRM
 - Complex Model
 - Phase II Standards (NOx)
 - Provisions for Ethanol in RFG
- Ethanol in RFG
 - Historical Perspective
 - Reg Neg
 - Background on Ethanol
 - The Ethanol Debate
 - Bush Compromise
 - EPA Concerns with Proposal
 - Response to the Proposal
 - Options for Ethanol FRM

Historical Perspective

CAA Deadline	November 1991
NPRM	July 1991
Reg Neg Agreement in Principle SNPRM FRM Scheduled for	August 1991 April 1992 November 1992
Bush Announcement on Ethanol	October 1992
SNPRM Published	February 1993
Waxman Court Order for FRM	September 1993
Program Begins	January 1, 1995

Reg Neg

Participants: Big and Small Oil, Oxygenate Producers, Auto, Environmentalists, States, Gasoline Marketers, Federal Gov't

Insufficient information at the time to completely model emissions vs fuel parameters

Compromise reached to promulgate:

Simple model FRM by 11/92 for use in 1995

Complex model FRM by 3/93 for use in 1997 (4-year lead time if not)

Key tradeoffs involved: performance averaging, performance stds for southern states, and simple anti-dumping program

Simple Model:

Summer RVP spec for all fuels for evap

Oxygen spec for Exhaust VOC

Oxygen caps for NOx

Maximum 5.7% ethanol (10% blends require use of complex model)

Ethanol Industry signed with full knowledge

Background on Ethanol

Ethanol, like other oxygenates added to gasoline significantly reduces CO emissions to help in CO attainment during the winter

Ethanol mixed as an alcohol with gasoline increases ozone during the summer
 Increases gasoline volatility by 1.0 psi RVP
 Volatility Increase magnified due to commingling In-use

Pollutant	Relative to REG	Relative to Conv Gasoline
Total VOC*	33%	33%
Reactivity Adjusted VOC**	22%	14%
NOx	little change	little change

* Includes distillation and commingling estimates ** Calculated from total VOC using CARB reactivity adjustments

Heavily subsidized

54 cent/ethanol gallon Federal subsidy for ethanol
 Many states have additional subsidies of 20-30 cents/ethanol gallon

With subsidies ethanol is economical

Relative to gasoline - Roughly 8% of gasoline contained 10% ethanol (gasohol) prior to CAAA
 Relative to other oxygenates In winter Oxy-Fuel Program and Winter RFG
 EPA believes it is also economical in Summer RFG

Background on Ethanol (Cont)

Historically marketed by splash blending into delivery trucks
Alcohols incompatible with petroleum distribution system
Produced in different location than gasoline
Easy to do since not dependent on a special gasoline blendstock

Ethanol Interests want to continue splash blending

Splash blending is not as easy under reform
Needs "clear" gasoline blendstock - free of other oxygenates
Finished fuel must meet reform stds and refiners need certainty that it will

Ethanol concerned about being labelled a "dirty fuel" and losing State support

Ethanol could be used to produce ETBE
No distribution system concerns, can be blended at the refinery
All the emission benefits of ethanol, none of the detriments
Reduces volatility of the blend instead of increasing it
At the moment not economic
No published health studies

Ethanol Lobby

Ethanol industry lobbied Congress and Administration that EPA's proposal unjustly excluded ethanol from the reform market

Their arguments:

Domestic source of energy

Reduces oil imports

Improves energy security

Reduces trade deficit

Renewable energy source

Global warming benefits

Endless supply - plenty of vacant land

Good farm policy

Reduces farm subsidy payments

Improves value of farm products

Farm related jobs

Need year-round market to remain competitive - winter only is inadequate

Ethanol Lobby

Ethanol Industry Position

Need a 1.0 psi RVP waiver

To allow splash blending of ethanol into reform

Intent of Congress in the CAAA

EPA granted it under volatility control rule

Justified by ozone reactivity - Same or greater ozone benefits as RFG

If no outright waiver, focus on ozone reactivity instead of VOC mass

CO emission reductions reduce ozone

VOC emissions from ethanol blends are less reactive

Many other air quality benefits

Air quality modeling proves it

Statutory Provisions

RVP Waiver:

Provided under 211(h) for nationwide volatility standards
Consistent with prior EPA volatility rulemaking

Not provided under 211(k) for reformulated gasoline
All RFG has to meet the same minimum performance stds

Reactivity:

CAAA requires reductions in "ozone forming VOCs" for RFG

CAAA clearly specifies mass basis, not reactivity for minimum RFG stds

CAAA require mass basis for State's 1996 and later reasonable further
progress requirements as well

EPA Understanding

Legally:

OGC and DOJ concluded in Fall '92

1.0 psi RVP waiver under 211(h) does not apply to RFG

No basis for a reactivity based approach for minimum RFG stds

EPA's Phase I stds are the minimum required by the Act (In North)

Only if EPA set stds beyond the minimum could reactivity be used - as long as the minimums are still met on a mass basis

Reactivity can be used to determine what is an ozone forming VOC

Agency currently excludes methane and ethane

No technical basis for changing definition in a way that would be beneficial to ethanol

EPA Understanding

Technically:

With a 1 psi waiver, ethanol blended RFG would increase not decrease VOC emissions and still couldn't be splash blended as it is now

Adjusted for reactivity, VOC emissions still increase, especially relative to other RFGs

CO benefit is small and only relative to conventional gasoline

VOC composition similar between RFG blends

Only "mitigating factor" is that emission increases are evaporative which tend not to react as quickly as exhaust

Risky going down the reactivity path

State of the science is weak and increasingly uncertain/controversial

Relative reactivity of VOCs are dependent on ambient conditions

Difficult/impossible to apply on a Nationwide basis

Inclusion of reactivity in RFG would reduce the mass benefits States

could claim toward their 15% VOC requirement for RFG

Consideration of reactivity would have serious ramifications for many other EPA air programs

Emissions and Reactivity Spreadsheet Analysis

Oxygenated RFGs Compared to CAA Baseline Gasoline (8.7 RVP)

	<u>MTBE</u>	<u>Ethanol</u>	<u>Ethanol</u>	<u>ETBE</u>
Wt% Oxygen	2.0	2.0	3.5	2.0
Blend RVP	8.1	9.1	9.1	8.1
Exhaust VOC	-8%	-4%	-7%	-9%
Non-Exhaust VOC	-8%	+5%	+5%	-8%
Total VOC	-16%	+2%	-2%	-17%
Distillation	+2%	+10%	+10%	0%
Commingling	N/A	+8%	+8%	N/A
Adjusted Total VOC	-14%	+19%	+17%	-17%
CO Reactivity Adj.	-2%	-2%	-4%	-2%
VOC Reactivity Adj.	-0%	-11%	-11%	+2%
Total Ozone	-16%	+6%	+2%	-17%

Ethanol Lobby's Ozone Modeling

Illinois Corn Growers in Fall '92

Numerous assumptions aimed at stacking the deck

Not an RFG scenario - attributed to ethanol a benefit for extra oxygen which would not occur under oxygen averaging

Ignored commingling and distillation effects

Assumed mobile sources only 5% of inventory

Picked and chose among studies for emission speciation profiles

Unvalidated Episode/Model used, etc.

Still showed an ozone increase of 0.05%

Result low but not too unexpected given their assumptions and that VOC increased by only 0.6% in their scenario

Council of Great Lakes Governors (Pending)

Correcting some problems adding new ones

Inflating EPA's exhaust inventory estimates for "Enrichment"

Assuming benefits on Non-road

Still picking and choosing speciation profiles

Doing sensitivity runs to evaluate other assumptions

Calendar year

Oxygen content of scenarios

Commingling,

Gasoline Volatility Decision

EPA granted ethanol a 1 psi waiver in the 1989 gasoline volatility rule

**Without waiver would have eliminated ethanol market nationwide
Would have gone counter to Congressional subsidy**

**Ethanol blend's volatility reduced by same amount as other gasoline
Started 1.0 RVP higher prior to rule, still 1.0 RVP higher after**

**Environmental detriment of waiver minor in comparison to emission
benefits of the rest of the rule
Gasohol only 8-10% of market**

**Exhaust VOC and CO emission and reactivity benefits reduce
environmental losses relative to conventional gasoline - this is not
true relative to RFG**

**Ethanol use not expected to rise as a result of the waiver which would
increase the environmental loss**

Bush Compromise Proposal

Announcement on October 1, 1992

Neither a "net" waiver nor Inclusion of reactivity

**Allowed 30% of RFG to have ethanol with higher RVP, but
RVP increase made up by other 70% (lower RVP)**

Various other incentives

Unrestricted early use of the complex model

Incentive also applied to ETBE

Support for ETBE tax break

Concerns With Ethanol Proposal

Violates Spirit of Reg. Neg and may jeopardize future Reg Negs

Substantial Legal Problems:

To justify legally need to show that ethanol's energy and other benefits are substantial enough to override environmental impact

Can't do - no significant energy benefits, not more cost effective

Even if ethanol had clear cost and energy benefits, it would be a clear legal stretch to turn an environmental regulation into an economic subsidy/energy regulation (vs tax credits, energy requirements, etc.)

Justification in proposal almost non-existent

Providing justification now without reproposing violates notice and comment reqts

Significantly increases the risk of litigation on not only this, but many other elements of the RFG program

Concerns with Ethanol Proposal

Not Environmentally Neutral:

Bush proposal supposedly environmentally neutral, but ignored certain significant impacts

Commingling

Distillation effects on evap other than RVP

Unrestricted early use of the complex model

30% market share for ethanol (at matched RVP) and unrestricted early use increase gasoline vehicle related VOC emissions by approx. 10%

Potential for temporal peaks in ethanol use could result in larger emission increases under worst-case ozone conditions

States would be required to make up the loss in other more burdensome and costly ways

States are already having difficulty getting the necessary reductions

Offsetting the VOC Increase of Ethanol Proposal

Ethanol proposal increases mobile source VOC emissions by 6% (approx. 2% increase in total VOC inventory) relative to the adjusted 1990 baseline

Roughly equivalent to:

- all aircraft and vessel emissions**
- 1/2 of all service station refueling emissions**
- 1/3 of all consumer solvent and landfill emissions**

Possible programs to offset the VOC increase:

Roughly equivalent of all feasible TCMs

Some of which are already being done by the States

Non-Road usage restrictions could more than offset, but are difficult to implement and enforce

More stringent enhanced I/M than required could offset some, but difficult to do by 1996

Additional point or area control measures would be costly

Concerns With Ethanol Proposal

Other Concerns:

Burdensome and Complex:

Requires the refiners to control the destination of their fuel to ensure emission increases from ethanol are offset in each covered city

Major disruption of current fuel distribution infrastructure and extremely costly if not impossible to comply

Large EPA enforcement burden

Increased ethanol sales result in increased gov't expenditure

Highway Trust Fund or general budget

Lower farm subsidies possible

**Oil industry required to subsidize ethanol industry
(13.7 cents/gal ethanol)**

Continuing Ethanol Pressure

Ethanol has rejected the Bush compromise and our recent proposal

"Not a viable option"

"[Enforcement] too complex and convoluted and may work to prevent the use of ethanol"

"Far too complicated to be effectively used"

Ethanol contends that the only acceptable solution is a 1.0 psi RVP waiver on the basis of reactivity

It is just an "accounting problem" not an air quality issue

Seeking a "scientific" resolution

The current ethanol industry may have nothing to lose by holding out

if successful, they dominate market

if they delay implementation of RFG

Ethanol profitable without reform

Time to obtain legislative fix

Other Player's Positions

Oil Industry:

Not a workable option

If forced, costs to consumers will be high

Auto Industry:

Not workable in present form

Simplify and limit it to 2 years

Environmentalists/States:

Causes environmental detriment

Violation of Reg Neg

Interferes with SIP planning

Increased cost

Not workable

Methanol Industry:

Not equitable

How much of a subsidy is ethanol going to get

Let them compete like the rest of us

Farm Lobby: Allied with ethanol

Options for Ethanol FRM

Promulgate ethanol proposal modified as best we can to address concerns

Revert to Reg Neg

**In conjunction could show support for other
pre-ethanol actions in lieu of ethanol proposal**

Promulgate Modified Proposal

- Could simplify the proposal and/or make it more pro-ETBE
- Eliminate complicating provisions aimed at maximizing ethanol RVP trading
 - Forfeiting and allocation of unused ethanol
 - Unrestricted early complex model use
- Allow refiners to blend as much ethanol as they want as long as within a city the 30% limit is not exceeded and restrict maximum RVP of ethanol blends to less than 1.0 psi increase (USDA recommendation)
- Allow less ETBE to count as more ethanol or even restrict the program to ETBE only

Pros:

- Less VOC emission increase than proposal (Less ethanol use)
- Somewhat less burden on Oil and EPA

Cons:

- Refiners still required to track their fuel to each city under averaging
- May force per-gallon compliance to avoid it
- Still no energy, or environmental justification
- Still burdensome
- Won't satisfy anyone
- Serious legal problems

Revert to Reg Neg

Address legal issues head-on:

- No authority for: waiver, reactivity adjustment
- No justification for special treatment

Pro:

- Maintains Reg Neg
- No increase in VOC
- Reduces cost
- Legally, technically defensible

Con:

- Would be portrayed as lack of support for "Domestic"
"Renewable" Fuels
- Political pressure from:
Ethanol lobby, Farm lobby, Pro-Ethanol Governor's,
Representatives, Senators

Support for Other Pro-Ethanol Actions

Possible Options:

Non-taxable tax credit for ETBE
Governor's Ethanol Coalition Mandate for 30% renewables
Fuels for America Proposal from Governor Nelson of Nebraska

Pros:

Supports renewables while protecting the environment
Deflects some political pressure - Could satisfy farm lobby

Con:

Beyond EPA's control - Requires Congressional Action

Non-Taxable Blender's Tax Credit For ETBE

Shifts ethanol subsidy from Highway Trust Fund to general fund

Eliminates Federal revenue resulting from taxes collected on the 54 cent/gal ethanol subsidy (18 cents/gal ethanol)

Pros:

Environmentally neutral - no commingling, no distillation effects
Previously supported by USDA, DOE, EPA
Refiners can blend: Easiest way for renewables to obtain widespread use

Cons:

Could significantly increase demand for ethanol, increasing Fed budget deficit
Volume could be capped (per gallon or per company), could be scaled for competition with MTBE, but entitlement problems
Methanol industry still being squeezed
Health effects of ETBE not yet studied

Governors' Ethanol Coalition Mandate

Mandate for 30% Renewables in RFG (Independent of RFG rulemaking)

Pros:

Essentially same ethanol market demand as RFG proposal
 Provides certainty of market leading to development of renewables to compete with ethanol
 EPA free to require that ethanol blends meet environmental stds
 Clinton was one of 16 governors to support it in June, 1992 (during campaign)

Cons:

Commingling/Distillation still exist unless incorporated into the complex model, which would likely cause a shift toward ETBE
 Still a burden on refiners to reduce RVP (unless shift to ETBE)
 Still requires clear gasoline for ethanol blending (unless as ETBE)
 Enforcement of 30% required but relatively simple
 Already rejected once by ADM

Nebraska's "Fuels for America" Proposal

Market-based program to ensure 20% of transportation fuels from new domestic sources, 3% from renewable resources by the year 2000

Pros:

Benefits for Ethanol, Oil, Environment

Revitalizes domestic oil industry, stimulates demand for alternative fuels

4-fold increase in demand for renewables

Stimulates national economic growth

Creates 1 million new jobs - 7 times more per dollar than typical government spending

Provisions for renewables reduces global warming

Cons:

Could be criticized as being protectionist (like other incentives)

Could increase fuel cost by 2-3 cents per gallon

Greater subsidy burden (but with a mandate the need for a tax subsidy is eliminated)

Timing is Critical

Decisions needed now on path to take

Sept 15, 1993 Waxman Deadline

Running out of lead-time for Refiners for 1995

Delays in ethanol decision could delay other RFG provisions

Need time to work decisions within the Administration

CRA PETROLEUM ECONOMICS MONTHLY



Philip K. Verleger, Jr.

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Just Wait Until Next Year

"Wait till next year" used to be the spring motto of the Cleveland Indians and other perennial losing baseball teams. However, the League's further expansion and the introduction of a three-division, three-round playoff tournament have made it possible for four additional teams to dream of a World Series victory as late as the end of September. Thus, there may be hope for Cleveland in 1994.

Oil refiners and crude oil producers will have to wait until 1995. However, the wait may be worthwhile. Recently, world financial markets have signaled that traders are concerned about inflation. Recent increases in commodity prices seem to support their apprehension, although government policymakers claim there is no reason to worry.

The situation in crude markets today seems to refute the government's view. Supplies are already constrained and further tightness is in store for 1995 unless the Iraq embargo is lifted. If this does not happen, substantially higher prices could occur next year.

After several bad years, gasoline refiners could enjoy a year of truly great margins in 1995 if new government regulations on importing reformulated gasoline are imposed. If these regulations are left unchanged, they could cut gasoline imports in half and add as much as 25 to 50 percent to retail prices. Thus, refiners would enjoy once-in-a-century profit levels, although they will probably spend the rest of the decade trying to prove that the higher prices resulted from the regulations and not some other action.

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MAY REPORT SUMMARY

We cover three topics in this issue of the *CRA Petroleum Economics Monthly*: 1) commodity inflation and the crude oil prices, 2) crude market developments, and 3) the decline in open interest on the New York Mercantile Exchange. The title ("Just Wait Until Next Year") refers to the first section, where we note that proposed EPA regulations relating to reformulated gasoline imports could push East Coast retail prices up by as much as 50 percent in 1995, giving refiners a once-in-a-lifetime profit.

Section I ("What Do Traders See?") reviews the recent increase in commodity prices, long-term interest rates, and oil prices. Government officials have assured everyone that the inflation alarms now ringing in financial markets are false signals. These officials may be wrong. The projected crude oil supply/demand balance appears to be tight for the next eighteen months, assuming the UN sanctions on Iraq continue. Further inflationary pressure will come from proposed EPA regulations, which in effect will limit US imports of reformulated gasoline. These regulations could boost 1995 gasoline prices by as much as 50 percent in the worst-case scenario. Such large increases would be great news for refiners in the short run, but would almost certainly trigger an enormous public outcry, moves for additional regulation, and legal investigations. We recommend that the oil industry make policymakers and the public aware of the price increases that may occur if the regulations are not modified.

Section II ("Seasonal Backwardation?") analyzes recent developments in the crude market. Much of the sharp increase in the WTI price is explained by speculative purchases, which seem to have exaggerated backwardation in US inland crude markets. However, the price increase has been exacerbated by the "Cushing Cushion," a situation we first described and named in this publication in 1987. With the Cushion, the seasonal price swing is amplified when there are strong seasonal increases in consumption in the upper Midwest and logistical facilities are pushed to capacity.

Section III ("A Curious Coincidence?") reviews the decline in open interest on the New York Mercantile Exchange since the beginning of 1994 and the change in the character of the participants. CFTC data reveal that total open interest has declined by more than 190,000 contracts. The decline has occurred despite a sharp increase in speculative purchases. We suggest that part of the drop in open interest



may be attributed to the liquidation of futures and swap positions held by Metallgesellschaft.

I. WHAT DO TRADERS SEE?

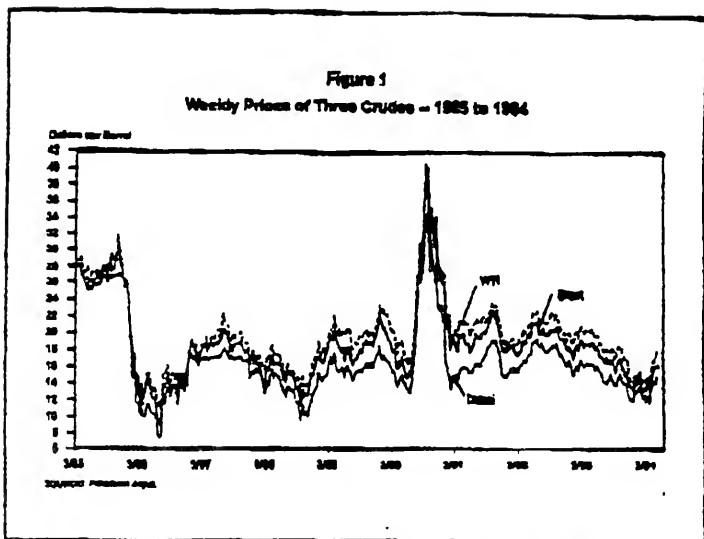
Prices of several raw commodities have risen sharply during the first months of 1994. *The Economist* (May 21, 1994) notes that its proprietary commodity index increased by 16 percent through May, after rising only 3 percent in all of 1993. According to the editors, the price of coffee has risen by almost 70 percent, while prices of wool, aluminum, cotton, copper, nickel, and rubber have increased by between 20 and 50 percent. Petroleum prices have increased during the same period by as much as 40 percent.

These increases have startled the financial markets and contributed to the more than 150-basis-point increase in long-term interest rates. To date however, most macro-economists and government officials continue to assure everyone that there is no danger of inflation. One wonders if they are correct. A review of the markets for many commodities indicates that supply and demand is precariously balanced. For example, inventories of important foodstuffs such as corn and wheat are low. Thus, prices of many grains will rise sharply if the summer brings another poor crop. The balance between coffee supply and demand is also uncertain due to a worse-than-expected crop, and the consequent increase in coffee prices is not terribly surprising.

The greatest risk of commodity inflation, however, comes from the oil sector. Worldwide inventories of crude and product were drawn down at an unexpectedly high rate during the first quarter, mostly because of higher-than-projected consumption in North America. Stocks are now forecasted to increase at a lower-than-expected rate for the rest of the year due to the unforeseen speed of economic growth and OPEC's decision to hold to its second-half 1993 production quota. The combination of increased consumption and steady OPEC output will be enough to push crude prices higher in 1994.

While such price increases ought to worry economic policymakers, a word of caution is in order. The price increase experienced to date is not very different from the one experienced in prior years. Indeed, examining a graph of crude prices from March 1985 to the present (Figure 1) reveals that the current cycle is little different from price increases in March 1986, January 1989, and late 1991. In short, increases over the past month are not worrisome by themselves.





However, the increases are not finished. Further price rises are probably in store for 1995 unless UN sanctions on Iraq are eased. A preliminary review of the 1995 supply/demand balance suggests that OPEC output will have to average almost 26 million barrels per day during 1995, up 1.5 million barrels per day from current levels. Such a high level of output may be physically if not politically difficult to achieve without Iraq's presence in the market, given the current and prospective problems facing some oil-exporting nations.

The introduction of reformulated gasoline may add to inflationary pressures in the United States. Proposed EPA regulations will make it very risky for independent traders to import this gasoline. As a consequence, imports may be reduced, total supplies cut, and imbalances between supply and demand created. These imbalances will lead either to temporary product shortages or much higher gasoline prices. We assume that markets will be allowed to clear and that retail gasoline prices will increase by as much as 50 percent in certain regions, particularly the East Coast.

The prospect of oil and gasoline price increases has been sufficient to spook financial markets. These increases may boost the US Consumer Price Index by a

fall two percent in 1995, lifting inflation rates from the projected 3 percent to 5 percent.

The Recent Price Increase

OPEC oil ministers can be pardoned for secretly having doubts about the oil market's sanity. Consider the recent sequence of events. Last September they met and established new quotas. The pundits generally greeted the agreement with applause. However, traders responded almost immediately by selling the market down. The price decline accelerated — as the ministers expected — when OPEC failed to cut production during December. Further price declines were expected this spring, when the organization again failed to cut quotas to meet projected declines in second-quarter demand. However, the decline lasted exactly three days before traders concluded that world markets were undersupplied. In the subsequent two months, prices have increased by \$3 to \$4 per barrel despite the OPEC ministers' failure to make recommended production cuts.

Three factors explain the sudden spring increase in prices: 1) economic growth rates have exceeded expectations, giving an unexpected boost to petroleum consumption; 2) oil production and/or exports have been curtailed from several producers, cutting world supply slightly below projected levels; and 3) prices have been pushed higher by massive buying on the part of speculators.

Higher Economic Growth Rates

Growth rate projections have been repeatedly revised upward over the last two to three quarters. In November, the economists surveyed by Consensus Economics projected 1994 growth rates of 2.9 percent for North America, 1.3 percent for Europe, and 2.1 percent for the Asia/Pacific region. More recently, this same group of forecasters has become modestly more bullish concerning 1994, projecting growth rates of 3.6 percent for North America, 1.5 percent for Europe, and 2 percent for the Asia/Pacific region. However, the consensus projections for 1995 call for much stronger growth, with the real GDP expected to increase by 3.6 percent in North America, 2.3 percent in Europe, and 2.9 percent in Asia/Pacific.

Oil consumption will obviously continue to increase in 1995 if these forecasts are realized. Total usage in 1995 could reach 69 million barrels per day, a 1.8 million barrels per day increase from last year's levels.



Reduced Production Levels

The increase in consumption has occurred at a time when oil-exporting countries are experiencing increasing operational difficulties. As a result, future production levels are less certain.

- Iran is having difficulty maintaining output at the level permitted by its quota. *The Energy Compass* reports that Iranian exports fell to 2.4 million barrels per day recently, a decline of 300,000 barrels per day from earlier levels. The drop in exports is attributed to a production decline caused by water encroachment in older fields. The *Compass* writers and others suggest that production will fall further in the future.
- The oil sector in Nigeria is reportedly experiencing frequent breakdowns. Political unrest in the Delta and River States has caused periodic production interruptions. At the same time a lack of hard currency is holding up investments in some oil fields because the government cannot make the payments to its partners required by production-sharing agreements.
- Production in Yemen is threatened by the civil war in that country.
- Exports from Russia continue to be disrupted by the breakdown of economic order behind the former Iron Curtain.
- Production and exports from both Algeria and Egypt remain uncertain as Islamic fundamentalists continue to threaten the respective governments.

Taken together, these risks make future production levels quite uncertain. Supplies will be adequate in 1994 if everything goes right. However, disruptions in one or two countries could create substantial tightness and raise prices.

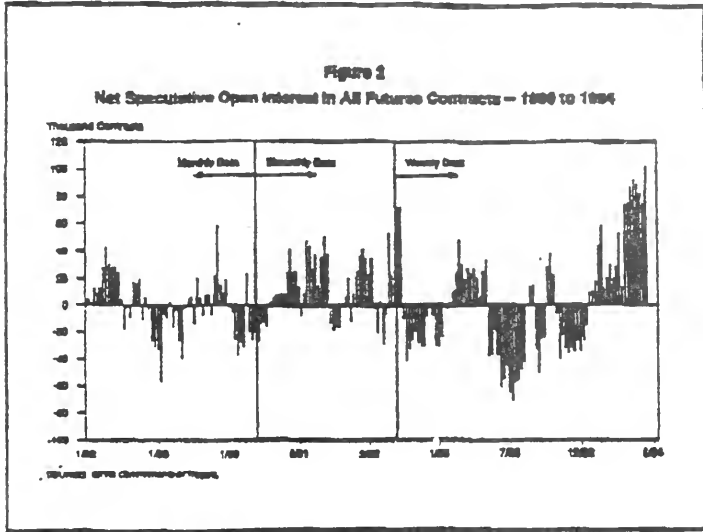
The Speculative Push

Speculation is the third factor contributing to higher prices. Between April 1 and May 24, noncommercial and nonreporting traders shifted their position in US petroleum futures from being net long 10,000 contracts to being net long 100,000 contracts (see Figure 2). As a consequence, these traders had the largest long position (and commercial traders the largest short position) ever recorded.

Some of these purchases may be attributed to investments by the "new commodity investors" described in this report three months ago, but other purchases were probably made by commodity funds. For the foreseeable future, the upward push



to prices imparted by these long-term investors should continue to the extent that investments are being made as a hedge against inflation.



The Outlook for 1995

The improving economic outlook for 1995 is certainly one of the prime factors driving the rise in industrial commodity prices and the rise in oil prices. Stronger economic growth will clearly boost oil consumption and, in the absence of an end to the Iraq embargo, will almost certainly increase oil prices.

The impact of the stronger economy can be seen from Table 1, which presents a projection of quarterly oil consumption and production for 1994. This forecast, which is based primarily on the IEA's May outlook, shows modest increases from 1993 levels in consumption and non-OPEC production. A balance between consumption and production under the current OPEC quota is achieved with small increases in inventories in the second and third quarter, followed by a very large drawdown in the fourth quarter.

Total OECD	39.2	40.6	38.8	38.8	41.1	40.0
Former Soviet Union	6.6	5.0	4.9	4.7	4.9	5.0
Other Non-OECD	22.4	23.1	22.9	22.7	23.7	23.1
Total World Demand	67.1	69.0	66.4	67.0	69.7	68.0
Supply						
OECD	16.6	17.4	17.2	17.3	17.9	17.5
Former Soviet Union	7.9	7.1	6.9	6.8	6.7	6.9
Other Non-OPEC	14.4	14.8	14.9	14.9	15.1	14.9
Processing Gains	1.4	1.5	1.5	1.5	1.5	1.5
Total	40.3	40.8	40.5	40.5	41.2	40.8
OPEC						
Crude	24.7	24.8	24.8	24.8	24.8	24.8
NGLs	2.2	2.2	2.2	2.2	2.2	2.2
Total	26.9	27.0	27.0	27.0	27.0	27.0
Total World Supply	57.4	57.8	57.5	57.5	58.2	57.8
Stock Change						
OECD Government	0.1	0.1	0.1	0.1	0.1	0.1
Other	0.2	-1.3	1.0	0.4	-1.8	-0.5
Total World						
Stock Change	0.3	-1.2	1.1	0.5	-1.5	-0.3

Source: IEA and Charles River Associates.

It is the projected fourth-quarter stock drawdown that should worry traders. According to this projection, world commercial inventories must be drawn down toward record lows by the end of the year unless output is increased. This would put stocks at or near commercial minimum levels and leave almost no available supplies to be drawn during the first quarter of 1995, which is normally the period of greatest use.

The impact on stocks can be observed in Figures 3 and 4. Figure 3 shows historical and projected stocks in OECD countries from 1974 through the first quarter of 1995, while Figure 4 shows the days of forward consumption covered by available stocks (i.e., inventories at the start of a quarter divided by actual or projected consumption). A common message emerges from both graphs: commercial inventories must be drawn to historic lows to meet projected consumption.

Tight inventories can be avoided in one of three ways: 1) prices can increase to reduce use, 2) economic activity can slow to reduce use, or 3) supplies can be increased. Currently the market is acting as if traders and speculators believe that higher prices and slower economic growth will curtail consumption.



Figure 3
Private and Total Stocks Held in OECD Countries - 1974 to 1996

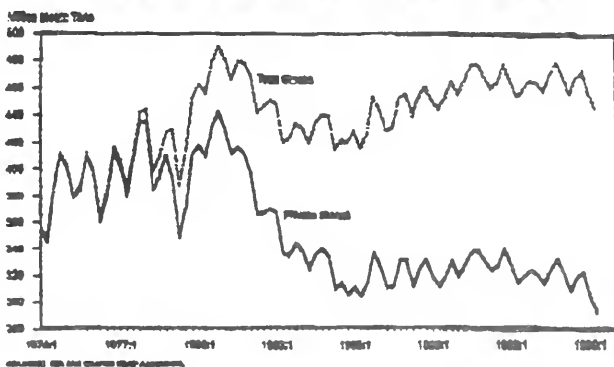
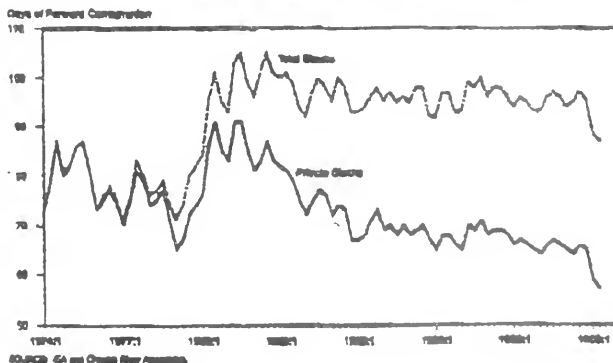


Figure 4
Days of Forward Consumption Covered by Stocks
Held in the OECD - 1974 to 1996



We expect supply and demand to be balanced by price increases and increased output from OPEC. Our quarter-by-quarter forecast for OPEC production in 1995 (see Table 2) assumes that production is increased by more than one million barrels per day, with much of the increase coming from Saudi Arabia and Kuwait. In the absence of resumed exports from Iraq, the increase in OPEC exports is likely to be accompanied by higher prices, with the OPEC "basket" rising to \$18 to \$20 per barrel, and WTI rising to between \$21 and \$25 per barrel.

Total OECD	40.0	40.9	39.2	40.2	41.7	40.5
Former Soviet Union	5.0	5.1	4.7	4.5	4.7	4.8
Other Non-OECD	23.1	23.7	23.8	23.3	24.3	23.7
Total World Demand	68.0	69.7	67.4	68.0	70.7	69.0
Supply						
OECD	17.5	17.8	17.4	17.5	18.1	17.7
Former Soviet Union	6.8	6.7	6.8	6.5	6.4	6.5
Other Non-OPEC	14.9	15.2	15.3	15.3	15.3	15.3
Processing Gains	1.5	1.5	1.5	1.5	1.5	1.5
Total	40.8	41.0	40.8	40.8	41.5	41.0
OPEC						
Crude	24.8	25.5	25.2	26.1	26.2	25.7
NGLs	2.2	2.2	2.2	2.2	2.2	2.2
Total	27.0	27.7	27.4	28.3	28.4	27.9
Total World Supply	67.8	68.8	68.1	69.1	69.9	69.0
Stock Change						
OECD Government	0.1	0.1	0.1	0.1	0.1	0.1
Other	-0.5	-1.0	0.6	1.0	-1.0	-0.1
Total World Stock Change	-0.3	-0.9	0.7	1.1	-0.9	0.0

Source: Charles River Associates.

The price increases could, of course, be larger if production is disrupted in one or more of the critical areas. For example, a tough limitation on Russian exports, a breakdown in social order in Nigeria, or revolution in Venezuela — all very conceivable events — could lead to much higher prices. The market will remain very tight and vulnerable to disruptions in supply in 1995. In summary, there is good reason for commodity prices to be rising sharply.

The Reformulated Gasoline Problem

Inflation rates could be pushed much higher in 1995 if the Environmental Protection Agency follows through with a proposed rule on imports of



reformulated gasoline. The oil industry must begin selling reformulated gasoline in certain air pollution "non-attainment" regions in January 1995. Under the rules issued by the EPA, each refiner is required to develop a 1990 baseline to measure the quality of its reformulated gasoline. Non-US refiners now have the option of either meeting a "statutory baseline" that represents the average of all US refiners or establishing their own baseline, which the EPA is permitted to verify. Since the statutory baseline is very strict, most refiners are likely to establish their own baselines.

The program has created a great deal of controversy. EPA's initial regulations would have required foreign refiners to meet the more stringent "statutory baseline." US refiners, on the other hand, were allowed to establish their own baseline using their 1990 production. According to the EPA, the less burdensome and less expensive regulation was imposed on US refiners because the agency could audit data they submitted. Foreign refiners were subjected to a harsher, arbitrary standard because the agency did not believe it had the authority to audit their data.¹

The EPA was forced to modify its regulations, however, when Venezuela threatened to sue the United States under GATT provisions regarding the imposition of an unfair burden on foreign refiners. Subsequently, the EPA modified its regulations to permit foreign refiners to establish their own baselines for 1990, as long as the EPA was given the right to audit their data. In essence, the foreign countries agree to subject their refineries to the EPA's extraterritorial review in order to comply with standards for exporting gasoline to the United States.

The change in the regulations leaves traders in an awkward position. According to *Petroleum Intelligence Weekly* (May 23, 1994), firms buying gasoline from foreign refiners face an extraordinary problem because, under the proposed EPA regulations, they will be held retroactively accountable for imported cargoes if the EPA determines that a non-US refiner has violated its 1990 baseline. Furthermore, the period of retroactivity is five years. Thus, for example, XYZ Trading Company can be fined in 1999 for cargoes purchased in 1995 from the European refiner ABC Refining if the EPA determines that ABC violated its 1990 baseline. The *PIW* editors suggest that many trading companies may be unwilling to

¹ EPA believes it must be able to audit data and information submitted by refiners. Domestic refiners are required by law to agree to such audits. Foreign refiners are not subject to the authority of US courts and thus theoretically would not have to comply with the regulations.

purchase imported reformulated gasoline unless it meets the stricter "statutory baseline." These traders may account for as much as one third to one half of the gasoline volumes imported into the United States.

The EPA's regulations relating to reformulated gasoline will have two important impacts on the volumes of gasoline imported into the United States. First, the reformulated gasoline rules will reduce the volume of gasoline foreign refiners can ship to this country. Second, some importers probably will be unwilling to accept the financial risk imposed by the regulations and thus will stop or substantially reduce the amount of gasoline brought into the United States. Higher prices will result from the reduced imports unless the diminished supply is offset by additional domestic production.²

The impact on gasoline prices will depend, quite obviously, on the EPA regulations' impact on gasoline supply. The severity of the price increase will be affected by how gasoline demand responds when the cost goes up. In 1993, the United States consumed 7.483 mbd of gasoline. Of this amount, 97 percent (7.245 mbd) was produced by domestic refineries and 3 percent (247 mbd) was imported. In 1994, it appears that consumption will increase by 1 percent to 7.60 mbd, while domestic production might rise by 0.2 percent. As a consequence, imports will have to increase to 340 mbd. In 1995, consumption should increase further by perhaps 1 percent, while domestic production may remain constant.³ Assuming domestic production remains the same, imports will have to increase to 440 mbd in 1995.

The question is what will happen to prices if these volumes of imports are not available? The obvious answer is that prices will increase. The magnitude of the required price increase can be gauged from the price elasticity of demand and supply for gasoline and the volume of reduced imports. Here we assume that US refiners will maximize gasoline output, essentially making the elasticity of supply zero, at least in 1995. Under these circumstances, a given cut in the volume of imports will have only a modest impact on consumption if the price elasticity of demand is large; on the other hand, it will have a large impact on prices if the

² US refiners have little surplus refining capacity. However, they could increase gasoline production by not shutting into distillation mode during the winter. In such circumstances, the domestic requirements for distillate would have to be met by reducing exports of that fuel or increasing imports.

³ The assumption concerning domestic production is a big uncertainty. Domestic refiners have been gearing up to produce reformulated gasoline and domestic capacity has been increasing steadily over the last several years. However, there are indications that some refiners may be forced to reduce total gasoline output in order to comply with the very complicated program.



915

Charles
River
Associates

price elasticity of demand is small. In the case of gasoline, most studies have found that the price elasticity of demand is small, in the range of -0.1 to -0.2.⁴

Given these assumptions, it appears that a reduction in imports of 100 mbd will boost retail gasoline prices by between 7 and 12 percent, while a reduction of imports of 200 mbd will result in an increase of retail prices of between 15 and 29 percent (see Table 3). In terms of spot prices, a reduction of imports of 100 mbd could add as much as 14 cents per gallon to gasoline.

100	12	7
200	29	15
300	49	22

SOURCE: Charles River Associates.

The region of the United States most exposed to these increases is the East Coast (PADD D). This region will be a large consumer of reformulated gasoline. Furthermore, most US gasoline imports today come to this location. In 1993, 98 percent of the gasoline imported into the United States flowed to the East Coast.

The East Coast's greater dependence on gasoline imports suggests that the price increases in PADD I may be much larger than in other regions. In fact, there could be essentially no price increases on the West Coast, modest price increases in the Midwest, and very large increases on the East Coast. Over time these increases would even out as arbitrage occurred. However, the initial East Coast price increase could be very, very large.

A large price increase on the East Coast should ultimately trigger some type of arbitrage among US and foreign refiners. Foreign refiners will find a way to manufacture increased volumes of gasoline meeting EPA specifications if prices in New York rise sufficiently. US refiners located on the Gulf Coast will certainly attempt to take advantage of higher prices by shipping reformulated gasoline to

⁴ For example, see Carol Dahl and Thomas Saurer, "Analyzing Gasoline Demand Elasticities: A Survey," *Energy Economics* 13, No. 3, July 1991, pp. 203-210.

the East Coast. However, certain logistical constraints may impede their efforts. Specifically, the capacity of the Colonial Pipeline is limited, as is the number of Jones Act ships available.⁵ As a consequence, costs of shipping incremental product from the Gulf to the East Coast may rise sharply.

Ultimately, the situation created by the EPA's reformulated gasoline regulations and the requirements of the Jones Act will probably lead to one or more of the following absurd types of arbitrage.

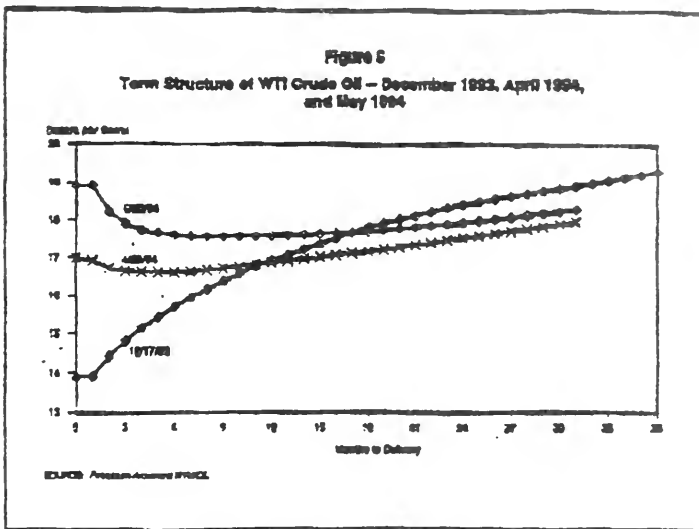
- Gulf Coast refiners will export reformulated gasoline to traders in some offshore Caribbean nation on foreign-flagged tankers. These traders will take delivery of the gasoline in their terminals and then immediately re-export it to the US East Coast, again using foreign-flagged tankers.
- Gulf Coast refiners will reduce distillate production and shipments of distillate on the Colonial Pipeline so they can manufacture and ship increased volumes of reformulated gasoline to the Northeast. The incremental supplies of diesel and heating oil required by consumers in that region will be supplied from abroad at a higher price.
- The price premium of reformulated gasoline in the Northeast will reach roughly twice the level that would exist in the absence of regulations. Reformulated gasoline will trade at a premium of 10 to 20 cents a gallon above the cost of nonreformulated gasoline, when the differential might normally be expected to be roughly 5 cents per gallon.
- Refiners and traders seeing the high prices created by regulations in 1995 will quickly invest in capacity to take advantage of the arbitrage opportunity, ultimately eliminating it and any opportunity to recover the higher cost of producing reformulated gasoline.

⁵ Under the Jones Act, all commodities transported by sea from one US port to a second may be moved on a US-flagged ship constructed in a US port and manned by US seamen. The number of product tankers meeting these qualifications has been steadily shrinking because the cost of building and operating US-flagged ships is much greater than the cost of building and operating foreign-flagged ships.



II. SEASONAL BACKWARDATION?

The market for West Texas Intermediate crude (WTI) has moved into steep backwardation.⁶ As may be observed from Figure 5, the contango of as much as \$0.50 per barrel of last December has been replaced by a backwardation of \$0.70 per barrel between the first and second contracts. In the process, the WTI market has become "disconnected" from other markets.



All the major petroleum reporting services have commented on these developments. *Petroleum Argus* (May 9, 1994) explained carefully that regional demands for crude oil from Midwest refiners are causing WTI prices to be bid up temporarily. *PIW* (May 23, 1994) explained that "localized phenomena in the US are blossoming into a WTI squeeze in the Midcontinent region" and notes further

⁶ Backwardation is the condition that is said to exist when the price quoted for immediate delivery of the commodity exceeds the price quoted for deferred delivery. Contango is a condition that is said to exist when the price quoted for immediate delivery of a commodity is less than the price quoted for deferred delivery of an identical quantity of the commodity.

that "many of the components of past squeezes that have temporarily disconnected WTI from world markets are falling into place."

In our view, the term "squeeze" is excessive. As we have noted in the past, the WTI market can occasionally become disconnected from other markets under certain circumstances. Indeed, the first CRA report on the subject in July 1987 introduced a term that is now widely used in the trade, "the Cushing Cushion."⁷

Under normal conditions, the WTI price must fluctuate at or below an adjusted price of Brent (the price of Brent plus the cost of transporting Brent to the Midwest plus any quality differentials). WTI may sell for less than this price when world markets for light crude are tight (because WTI cannot be exported), but the WTI price generally should not rise above this ceiling. However, three conditions give rise to the "Cushing Cushion," or the situation that occurs when WTI exceeds this price: 1) strong Midwestern demand for petroleum products, 2) limited capacity to transport crude oil to the Midwest from the Gulf Coast, and 3) limited capacity to move products from the Gulf Coast to the Midwest. In other words:

- Growth in product consumption must be so strong that refineries are forced to run at maximum rates of utilization.
- Crude pipelines must be full, which prevents excess crude supplies from flowing to Midwestern refiners from the Gulf.
- Product pipelines must be full, which prevents refiners located on the Gulf Coast from taking advantage of the arbitrage between regions.

Recently, all three conditions have prevailed in the market. The Midwest has experienced the fastest economic growth of any US region, and refiners are running at maximum rates to meet projected consumption. Crude pipelines have been operating at capacity. The excess demand for product has resulted in increased demand for product imports from other regions, particularly the Gulf Coast. When product pipelines reached capacity, spot prices of product in PADD III began to rise relative to the Gulf and higher product prices spurred refiners to bid up local crude prices.

⁷ The Cushing Cushion occurs when the spread between WTI and world crudes (particularly Brent) increases past an amount justified by transportation and quality differentials. It can occur only when transportation capacity for moving products and crude from the Gulf Coast to PADD III is inadequate.



PTW (May 23, 1994) reported that "a key Williams product pipeline link from the Gulf Coast to the Midcontinent lines is down for hydrostatic testing, reducing supplies and keeping gasoline prices at a steep premium to Gulf Coast levels." The effect has been to increase the spread between prices of products trading on the Gulf Coast and products sold in the Midwest. Normal spreads between markets have averaged less than two cents per gallon over the last five years. However, during May the spreads have almost doubled (see Table 4). For example,

- The normal spread between the price of regular unleaded gasoline at the Gulf and spot regular gasoline at either PADD III terminals or Chicago is 1.7 cents per gallon. During May, however, the spread reached 2.7 cents per gallon in the PADD and 2.4 cents per gallon in Chicago.
- The normal spread between distillate fuel oil on the Gulf and distillate in PADD III terminals is 1.3 cents per gallon, while the normal spread between Gulf Coast refineries and Chicago is only 0.4 cents per gallon. During May, however, spreads increased to 3.9 cents per gallon in the Group and 2.8 cents per gallon in Chicago.

Gasoline	1.8	2.7	1.7	2.4
Premium Gasoline	1.8	2.7	1.5	3.3
Distillate Fuel Oil	1.3	3.9	0.4	2.8
SOURCE: Platts				

This increased value of products in Midwestern markets permits refiners located there to offer as much as \$0.50 to \$0.75 per barrel more for light crudes than their counterparts on the Gulf Coast. They will continue to be able to offer these premiums, and WTI will continue to trade at an abnormal premium to other crudes until balance is restored to product markets. Based on our current assessment, it appears that the imbalance may last until the fall.

(Seven years ago we suggested in the July 1987 *CRA Petroleum Economics Monthly* that the periodic problems created by inadequate product transportation capacity to the Midwest made WTI inferior to other international crudes as a hedging instrument. The reoccurrence of the Cushing Cushion this year is a

reminder that WTI is a fundamentally flawed commodity for hedging international sales. Not surprisingly, refiners with long-term contracts for internationally traded crudes linked to WTI are now having second thoughts as to the advisability of the formula selected. Under most circumstances, Brent would seem to be a far superior crude for hedging transactions in Europe and on the Gulf Coast.)

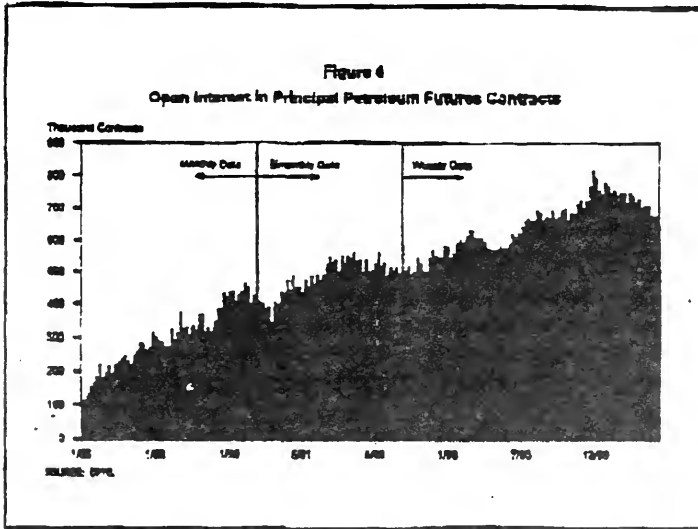
III. A CURIOUS COINCIDENCE?

Open interest in petroleum futures has dropped sharply on the New York Mercantile Exchange. Between December 14, 1993, and May 24, 1994, the number of open contracts declined by 191,215, or 23.4 percent (see Table 5). While open interest has declined between December and May in the past (see Table 6), the decline over the last five-plus months has been much larger in both absolute and percentage terms than the declines noted during similar periods in prior years. The shift to a net short position may increase the market's exposure to upward price movements if speculators pour further funds into oil futures. This will not occur if commercial traders are willing to increase their short positions further.

Crude Oil	452,489	309,875		(52,784)
Heating Oil	207,774	134,808		(72,966)
Gasoline	158,545	83,090		(81,453)
Total	818,788	627,573		(191,215)
Source: CFTC.				
Dec. 1986 to May 1987	220,912	215,853	(5,259)	(2.4)
Dec. 1987 to May 1988	310,854	274,307	(36,347)	(11.7)
Dec. 1988 to May 1989	307,204	310,537	3,333	1.1
Dec. 1989 to May 1990	417,408	435,936	18,528	4.4
Dec. 1990 to May 1991	388,182	450,565	64,423	16.8
Dec. 1991 to May 1992	522,583	503,236	(19,347)	3.7
Dec. 1992 to May 1993	527,216	574,105	46,889	8.9
Dec. 1993 to May 1994	818,788	627,573	(191,215)	(23.4)
Source: CFTC.				



The decline in open interest may be observed from Figure 6, which shows the trend in long open interest from 1986 through May 1994. The decline that has occurred since December stands out as the largest reduction recorded in the recent history of the NYMEX.



The decline in total open interest exceeds by approximately 30 million barrels Metallgesellschaft's reported total position in oil futures and swaps of 160 million barrels (see *CRA Petroleum Economics Monthly*, February 1994). Since the liquidation in NYMEX contracts has essentially paralleled the period during which MG was reported to have been closing contracts, one might assume that the decline in open interest was associated with the closing of MG's positions on the NYMEX and the liquidation of NYMEX positions associated with MG swaps. However, we may never know the truth because the data needed to confirm such an assumption are not available to the public.

The drop in open interest in petroleum futures, whatever the cause, has important implications for the oil industry. A reduction in open interest of more than 20 percent constrains the market's capacity to absorb increased purchases or sales

and consequently increases the elasticity of prices with respect to volume. Put another way, a decline in market size may make prices more volatile.

The potential rise in price elasticity is further increased today by the very aggressive position taken toward the market by commodity funds and other oil market speculators. These participants have been large purchasers of futures since April 1 and seem to account for much of the increase in prices that has occurred this spring.

The large long position of speculators is offset by a record short position held by commercial traders, as may be observed from Table 7. The data presented in the table show that the recent swing in the net position of commercials of 125,000 contracts from mid-December to the end of May is by far the largest change in the last eight years. Once again, one may speculate that the shift in the commercial position resulted in large part from MG's strategy change.

Whether this imbalance between speculative longs and commercial shorts has any impact on prices will depend on the desires and willingness of each group of participants to expand or contract their relative positions. Large price increases or decreases will occur if one group attempts to hold its position while the other tries to expand or liquidate.

Dec. 1986 to May 1987	(23,184)	(15,580)	7,905
Dec. 1987 to May 1988	30,574	(1,829)	(32,503)
Dec. 1988 to May 1989	(5,167)	(6,967)	(1,790)
Dec. 1989 to May 1990	(17,430)	27,575	45,005
Dec. 1990 to May 1991	16,887	(23,852)	(40,739)
Dec. 1991 to May 1992	16,166	(33,011)	(40,177)
Dec. 1992 to May 1993	29,678	34,991	5,253
Dec. 1993 to May 1994	25,824	(100,727)	126,551

Source: CFTC.



STATE OF MICHIGAN
OFFICE OF THE GOVERNOR
LANSING

JOHN ENGLER
GOVERNOR

June 21, 1994

The Honorable John D. Dingell, Chairman
House Oversight and Investigations Subcommittee
United States Congress
2328 Rayburn House Office Building
Washington, D.C. 20515

Dear Congressman Dingell:

Thank you for the opportunity to provide comments regarding issues the State of Michigan is facing as it implements the Clean Air Act Amendments of 1990. I appreciate any assistance that you and the House Oversight and Investigations Subcommittee can provide.

My number one concern is for the United States Environmental Protection Agency (EPA) to make as timely a decision as possible regarding Michigan's application to redesignate seven counties in southeastern Michigan to an attainment area for ozone. Michigan submitted the application, complete with three years of data demonstrating compliance, on November 13, 1994. It is critical to the economic health of the city of Detroit and the surrounding area that the EPA Headquarters follow the recommendations of EPA Region V and approve the application as soon as possible. I have enclosed two letters to the President and one letter to Administrator Browner that elaborate on the issue.

Ottawa, Kent, and Muskegon Counties in west Michigan are designated as a "moderate" nonattainment area for ozone. Governors Edgar, Bayh, Thompson, and I signed the Lake Michigan Memorandum of Agreement for the Development of Interstate Ozone Control Strategies in 1991. The agreement resulted in three years of extensive data collection and computer modeling. The study demonstrates that "but for" pollution originating outside of Michigan, the three counties would be able to demonstrate attainment with the federal ozone standard.

The Honorable John D. Dingell

Page 2

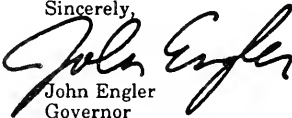
June 21, 1994

Notwithstanding the impossibility of compliance, the federal act requires businesses and citizens within the three counties to implement costly requirements to reduce the emission of ozone-forming volatile organic compounds. The cost of compliance with the act is high. The sanctions for not complying with the act are draconian. Michigan has applied for the three counties to be designated an attainment area for ozone and, in the alternative, asked for the area to be reclassified a rural transport region. The EPA has denied both requests.

Michigan will continue to work with other interested states, the National Governors Association, and the EPA to craft a fair resolution for areas that are faced with pollution problems that are not of their own making. One potential solution is a bill introduced by Congressmen Ehlers and Hoekstra. H.R. 3902 would require the EPA to reclassify a nonattainment area to a rural transport region if it could be demonstrated that the area contributed to no more than 35 percent of the ozone measured there.

Thank you for the opportunity to comment. If you would like to discuss these issues further, please feel free to contact Chad McIntosh, my environmental policy advisor, at (517) 373-7949.

Sincerely,

A handwritten signature in black ink that reads "John Engler". The signature is fluid and cursive, with the first name "John" being larger and more prominent than the last name "Engler".

John Engler
Governor

JE/wcm/kh

Enclosures

cc: Congressional Delegation
The Honorable Carol Browner



STATE OF MICHIGAN
OFFICE OF THE GOVERNOR
LANSING

JOHN ENGLER
GOVERNOR

May 19, 1994

The President
The White House
Washington, D.C. 20500

Dear Mr. President:

The City of Detroit and the surrounding region of Michigan are currently designated a moderate non-attainment area for ozone under the federal Clean Air Act. The effect of such a designation has been to discourage economic expansion and growth in Detroit and the surrounding region. Companies interested in expanding their facilities or building new ones look elsewhere to "attainment" areas.

Due in large part to the installation of air pollution control equipment, the development of innovative technologies to reduce air pollution at its source, and the fact that more Michiganders are driving newer and cleaner automobiles, there has been substantial improvement in the quality of Detroit's air in recent years. Monitors in Detroit and the surrounding region have shown compliance with the national ambient air quality standards for ozone for the last three years.

The Michigan Department of Natural Resources (MDNR) has submitted an application to the U.S. Environmental Protection Agency (EPA) Region V office for the area to be redesignated to an attainment area for ozone. We understand that Region V has reviewed the application and has recommended to EPA headquarters that the application be approved. We are dismayed to hear that, although EPA headquarters is leaning favorably toward approving the application, it may be as late as November before a decision is forthcoming. This is particularly frustrating due to the fact that the application was submitted on November 13, 1993.

We are now joining together to request your assistance in releasing the City of Detroit and its surrounding region from the economic restraint of the federal Clean Air Act's offset policy. Rapid relief from the offset policy is a concrete example of something that government can and should do to give the private sector the tools necessary for job creation. A favorable decision will have a very positive impact on Detroit's and the surrounding region's ability to attract new businesses and allow expansion of existing businesses. Businesses will no longer be subject to the offset requirement of reducing emissions from existing facilities in order to construct new facilities or expand existing facilities. In a very real sense, the sooner a favorable decision is made, the sooner more Michiganders will find jobs.

Amendments to the Michigan Clean Air Act, signed into law on November 13, 1993, include contingency measures which will insure that there will be no degradation of air quality in the event of the area's redesignation. As you have stated, it is possible to

POLICY OFFICE
MAY 20 1994

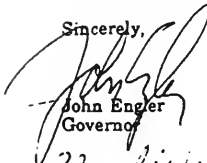
The President
Page Two
May 19, 1994

protect the environment while promoting the economy. Businesses will continue to operate in the environmentally responsible manner which has brought us to this point.

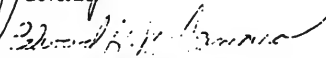
Please join with us in our efforts to revitalize the City of Detroit and its surrounding region. We request your assistance in obtaining an expedited and fair review of the redesignation application. With your help, Detroit and the surrounding region will become the largest metropolitan area in the United States that is in attainment with the ozone standards. The word will spread throughout the continent of North America that southeastern Michigan is open for business.

On behalf of the people of the City of Detroit, Wayne, Oakland, and Macomb Counties and the entire southeastern region of Michigan, thank you for your help.

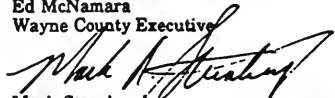
Sincerely,



John Engler
Governor



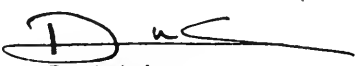
Ed McNamara
Wayne County Executive



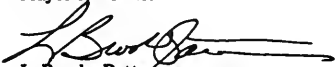
Mark Steenbergh
Chair of Macomb County Commission

JE/wcm

cc: Thomas F. McLarty, III



Dennis Archer
Mayor of Detroit



L. Brooks Patterson
Oakland County Executive



STATE OF MICHIGAN
OFFICE OF THE GOVERNOR
LANSING

JOHN ENGLER
GOVERNOR

June 15, 1994

The Honorable Carol M. Browner, Administrator
Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460

Dear Ms. Browner: *Carol*

Thank you for taking the time to talk with me on Tuesday, June 7. To reiterate, I requested that you approve Michigan's application to redesignate the southeastern region of the state as an attainment area for federal ozone standards as soon as possible.

The Michigan Department of Natural Resources has provided all the data and information necessary for the application to be approved. Region V has recommended that the application be approved. Collecting data for one more summer is not a requirement for approval.

Recently enacted amendments to Michigan's clean air laws will insure that there will be no degradation of air quality in the event of the area's redesignation. Businesses will continue to operate in the same environmentally responsible manner which has brought us to this point. The automobile manufacturers will continue to build the cleaner-operating automobiles that have contributed so significantly to the improvement in the quality of the air.

I am also very pleased to inform you that there is a significant effort underway by the citizens and businesses located in southeastern Michigan to voluntarily reduce emissions of ozone-forming volatile organic compounds in order to continue to improve the quality of the region's air. All of this is occurring in anticipation of your decision. I expect even more significant voluntary efforts once your decision is announced.

As we discussed, I am eager to arrange a joint announcement with President Clinton, Vice President Gore, Congressman Dingell, and the rest of the southeastern Michigan congressional delegation. Dennis Archer, Mayor of Detroit; Edward McNamara, Wayne County Executive; L. Brooks Patterson, Oakland County Executive; and Mark Steenbergh, Chairman of the Macomb County Board of Commission, would also join us in announcing the redesignation of southeast Michigan. The greater Detroit area will be the largest metropolitan

The Honorable Carol M. Browner
Page Two
June 15, 1994

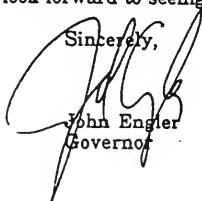
area in the United States that does not exceed the federal ozone standards. The announcement will herald an era of economic growth and new jobs for the Detroit area.

I also appreciated our discussions regarding the reauthorization of the Clean Water Act and your interest in looking at incentives to allow permitting on a watershed basis. Please have your technical people contact Chad McIntosh, my environmental policy advisor, at (517) 373-7949.

In addition, I understand that the EPA has known that carcinogens and other hazardous substances have existed in the drinking water supply of the City of Petoskey since 1983. In April 1992, Michigan's Congressional delegation and I requested that Region V use its authority under Superfund to resolve the problem. I wrote Mr. Adamkus in January and March of this year, as well. The Michigan Departments of Public Health (DPH) and Natural Resources (DNR) have informed me that the EPA-preferred air stripping remedy is not adequate to protect the public health. I ask that EPA meet with the MDPH and the MDNR to develop a mutually agreeable remedy that does protect the public health.

Thanks again for your time. I look forward to seeing you in Michigan soon.

Sincerely,



John Engler
Governor

JE/cm

cc: Michigan Congressional Delegation
L. Brooks Patterson
Mark Steenbergh
Ed McNamara
Mayor Dennis Archer



STATE OF MICHIGAN
OFFICE OF THE GOVERNOR
LANSING

JOHN ENGLER
GOVERNOR

March 21, 1994

The President
The White House
Washington, D.C. 20500

Dear Mr. President:

It was a pleasure to participate with you in the G-7 Jobs Conference in Detroit. I appreciated the opportunity you afforded to provide an international showcase for the City of Detroit and the State of Michigan as hosts of the conference.

In your remarks on Monday you spoke of the riddle of job creation. You mentioned that we should "... recognize that there are things that government can and should do [to] give our private sector the tools to grow ...". You also stated, "We now know for sure it is possible to protect the environment and promote the economy." I am writing to you to request your assistance in providing the private sector of the City of Detroit and its surrounding counties with the tools that will create jobs while at the same time protecting the environment.

Seven counties in southeastern Michigan are currently designated a moderate non-attainment area for ozone under the federal Clean Air Act. This designation has had a chilling effect on economic expansion and growth in Detroit and the surrounding region.

As I mentioned to you, there has been substantial improvement in the quality of Detroit's air in recent years. In fact, over the last three years monitors in Detroit and the surrounding region have shown compliance with the national ambient air quality standards for ozone. The Michigan Department of Natural Resources has submitted an application to the U.S. Environmental Protection Agency (EPA) Region V office for the area to be redesignated to an attainment area for ozone.

I understand that Region V has reviewed the application and has recommended to EPA headquarters that the application be approved. This would be very good news for the Detroit area and is proof positive of your observations regarding economic and environmental policy. I am asking your assistance in expediting EPA headquarters' review.

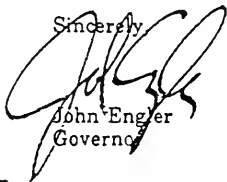
The President
Page Two
March 21, 1994

A favorable decision will have a very positive impact on Detroit's and the surrounding region's ability to attract new businesses and allow expansion of existing businesses. Businesses will no longer be subject to the offset requirement of reducing emissions from existing facilities in order to construct new facilities or expand existing facilities. A favorable decision is one of the tools that government can give the private sector to grow and create jobs.

It is important to note that a favorable decision will not degrade the air quality in the region. It is possible to protect the environment and promote the economy. The State of Michigan remains committed to insuring that air quality continues to improve. In fact, the businesses in Detroit will still be required to install strict air pollution control equipment to protect the air. Amendments to Michigan's Clean Air Act, which were signed into law on November 13, 1993, include contingency measures that will insure there is no backsliding in the region's air quality in the event it is redesignated as an attainment area.

Please assist me in obtaining an expedited and fair review of the redesignation application. Detroit and the surrounding region will become the largest metropolitan area in the United States that is in attainment with the ozone standards. Your help will assist the region in its economic renaissance while continuing to improve air quality. Thank you for your help and thank you for the time you spent in Detroit. Under separate cover, I am sending you the charter schools information you requested.

Sincerely

A handwritten signature in black ink, appearing to read "John Engler". The signature is stylized and overlaps with the typed name below it.

John Engler
Governor

JE/wcm

cc: Thomas F. McLarty, III

United States Department of State

Washington, D.C. 20520



COPY
ORIGINAL IN FILE

Dear Mr. Chairman:

We are responding to your June 28 letter containing additional questions regarding the Clean Air Act (CAA) Implementation Hearing of June 22, 1994.

One of your questions, Question Number 3., was directed to Ms. Nichols of the EPA and Mr. Watson. The question is a technical one related to the EPA's proposed foreign refiner rule. We have consulted with EPA and agree with the EPA's response to your question.

We appreciate your continued interest in this issue. We will continue to work cooperatively with you on this matter.

Sincerely,

Wendy R. Sherman

Wendy R. Sherman
Assistant Secretary
Legislative Affairs

The Honorable
John D. Dingell, Chairman,
Committee on Energy and Commerce,
House of Representatives.

94 JUL 29 AM 11:50
U.S. DEPARTMENT OF STATE
OFFICE OF LEGISLATIVE AFFAIRS

ONE HUNDRED THIRD CONGRESS

JOHN D. BINGELL, MICHIGAN, CHAIRMAN

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REGO P.F. STUNTZ STAFF DIRECTOR/CHIEF COUNSEL

RDGM 2323
 RAYBURN HOUSE OFFICE BLDG.
 PHONE (202) 225-4441

U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, DC 20515-6116

July 26, 1994

The Honorable Carol M. Browner
 Administrator
 Environmental Protection Agency
 401 M Street, S.W.
 Washington, D.C. 20460

Dear Administrator Browner:

Thank you for your June 24, 1994 reply to the Subcommittee on Oversight and Investigations' letter of March 25, 1994 concerning implementation by the states of the vehicle inspection and maintenance (I/M) program required by the 1990 amendments to the Clean Air Act and the Environmental Protection Agency's (EPA) November 1992 rule. It is quite helpful and relevant to the Subcommittee's hearing of June 22. I particularly appreciate your providing EPA's most recent quarterly update of I/M implementation, and hope that you will provide copies of each future update when available.

The EPA letter encloses a one-page document entitled "Recent EPA Efforts to Put the 'M' Back in I/M" which identifies several grants and a contract. Please provide the results achieved to date under each such financial aid instrument.

The EPA letter also notes that news of the California I/M proposal generated interest in other states and requests for information on the California proposal. However, you state that the EPA has not entered into formal negotiations with any other state. As you know, the Subcommittee is concerned that EPA is treating different states differently with respect to their respective I/M programs without sound underlying factual or policy rationales for such distinctions. It now appears that even within EPA a single state may be subjected to inconsistent treatment.

At our June 22, 1994 hearing, Congressman Thomas J. Bliley asked the EPA witness, Ms. Mary Nichols, about Virginia's I/M program. Ms. Nichols indicated that there is a "good deal of room for individual programs" and appeared to disavow the statement of Region 3's Regional Administrator in the Washington Post

The Honorable Carol M. Browner
Page 2

suggesting a contrary view. Your letter seems to support that view which, I think, is reasonable.

In this regard, I understand that Virginia has exchanged correspondence with the EPA concerning I/M. On June 15, Virginia requested that the EPA review a proposal to revise its state implementation plan regarding I/M. However, the news media reports that the EPA has rejected that proposal in a very short period of time apparently without any evidence of trying to work with the state. This rather quick action seems inconsistent with the colloquy between Congressman Bliley and Ms. Nichols. Please explain in greater detail the actions by the EPA regarding Virginia's I/M program and the reasons for rejection of the latest proposal.

The Virginia proposal requires that private fleets and local government fleets be tested at official public inspection stations or apply for a fleet inspection license. Does the Virginia program also cover federal vehicles operated in the northern Virginia area by the various federal agencies, including those operated on military installations? If not, are they subject to the Maryland or District of Columbia I/M requirements? What is the number of such vehicles in the I/M area? Do these agencies pay inspection fees? If so, what is the annual cost? What are the repair costs?

Finally, enclosed is an article from the July 10, 1994 edition of the Boston Globe. The article indicates that the Maine I/M program is being used by the state to gain clean air credits to benefit the firm of Louisiana-Pacific so it can expand its operations in Maine, apparently without paying for off-set credits. The article states the firm will emit 200 tons of additional nitrogen oxide (NOx). Is this true and is it in accord with the statute? Does the I/M program actually off-set this increase, particularly taking into consideration the large influx of tourists to Maine whose vehicles may not be covered by an I/M program? What is the pollution record of this firm? Has the EPA and/or the state imposed penalties? What is their status?

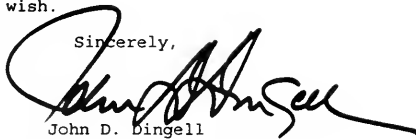
Why should motor vehicles and their operators be charged for the cost of emissions by stationary sources, particularly when Maine has not adopted RACT controls for NOx (see EPA status of sanctions for Maine)? I understand that some are suggesting that vehicle manufacturers selling vehicles in the 13 northeastern states should off-set emission costs of utilities and other stationary sources in that area. Is that correct? Please explain that proposal and EPA's views.

Pursuant to Rules X and XI of the Rules of the House of Representatives, I request your response by August 12, 1994.

The Honorable Carol M. Browner
Page 3

With every good wish.

Sincerely,

A handwritten signature in black ink, appearing to read "John D. Dingell". The signature is fluid and cursive, with a large initial "J" and "D".

John D. Dingell
Chairman

Subcommittee on Oversight and
and Investigations

Enclosure

cc: The Honorable Dan Schaefer, Ranking Republican Member
Subcommittee on Oversight and Investigations

NEW ENGLAND

THE BOSTON SUNDAY GLOBE • JULY 10, 1984

MAINE

Drivers fuming over business break

Lawmakers say industry benefits from emissions program at expense of car owners

By Denise Goodman
SPECIAL TO THE GLOBE

AUGUSTA, Maine — Controversial from its inception, a new vehicle emissions testing program drew more ire last week when car owners and legislators learned that some of the clean air credits earned through car tune-ups may be given to a northern Maine industry, allowing it to add pollutants to the air.

By week's end, it appeared the issue could spark a major battle be-

tween legislative leaders and Gov. John McKernan.

The governor and other state officials say the arrangement is needed to trigger economic development. But critics say vehicle owners of limited means should not have to pay for it.

"Maine car owners, already apprehensive about this new program and whether or not their car will pass, should not be asked to shoulder this burden for Maine industry,"

state Senate President Dennis Du-

treble (D-Biddeford) said Friday.

Dutremble and House Speaker Dan Gwadosky (D-Fairfield) threatened to call the Legislature back into special session if McKernan does not drop the air-quality credit proposal.

Ten days ago, Maine and Texas became the first states in the nation to implement an enhanced inspection and maintenance program to reduce ground-level ozone. Car and light truck owners in seven southern Maine counties must pay \$24 for the test — including running the vehicles

at high speeds on rollers at special test centers — and up to \$450 more for required repairs.

Others say that pollutants from the Industrial Midwest, dumped on Maine by the jet stream, and tourists' vehicles are the major factors in coastal Maine's summer ozone alerts.

Still, most predicted that Mainers would comply and do their part to clean the air, perhaps reacting the way Beth Gammo of Camden

MAINE, Page 30

Car owners want to put brakes on company's air pollution break

■ MAINE
Continued from Page 29

did last Wednesday minutes before her 1984 Oldsmobile failed the test in Rockland.

"Environmentally, I think it's a good idea," said Gammo. "Financially, for people like myself, I think it's a lousy idea. I work two jobs and I'm basically just making it."

On Wednesday, Conrad Schneider, a staff lawyer for the Natural Resources Council of Maine, which has lobbied hard for the test program, made what he said was a painful revelation.

According to a notice in the Federal Register, Schneider said, the state Department of Environmental Protection (DEP) proposes to give some air pollution credits earned by the vehicle testing program to Louisiana-Pacific to expand its waferboard plant in New Limerick.

Air-quality credit trade-offs are not new, Schneider said, but usually an industry seeking to increase emissions must buy credits from another that has reduced its own emissions by production cutbacks or improved technology.

In this case, Schneider charged, "State officials have proposed to give away air-quality gains squeezed from the wallets of Maine people without charging companies a penny."

DEP officials and their critics agree on some things.

Maine faced losing \$70 million in federal highway funds if it failed to comply with the Clean Air Act by in-

stituting vehicle testing in three counties to reduce ground-level ozone. But the most inexpensive way to meet other requirements to reduce volatile organic compounds was to extend the tests to four other counties, resulting in an overall 2,000-ton reduction in nitrogen oxide emissions. Since the law requires only an 800-ton reduction in Maine, 1,200 might be available to offset in-

'State officials have proposed to give away air-quality gains squeezed from the wallets of Maine people.'

CONRAD SCHNEIDER
Lawyer

dustry expansion.

Dennis Keschle, director of Maine's Air Quality Bureau, said that in preliminary talks with Louisiana-Pacific, "we're not asking them to pay anything" for credits allowing an expanded plant to emit 200 tons of additional nitrogen oxide. That's because the one-time gift would keep the company in Maine "when it could easily move across the border (to Canada)," he said.

But Richard Pushard, public affairs and marketing director for the 235,000-member American Automobile Association-Maine, said, "Many Maine motorists feel they are, in effect, subsidizing Maine businesses by virtue of the \$24 they are paying."

Others say industry should pay for the credits with proceeds going to help low-income vehicle owners pay for required repairs.

John DeVillars, New England re-

gional administrator of the federal Environmental Protection Agency, said that such trade-offs "are an environmentally and economically sound approach if implemented correctly." But, DeVillars said, emission credits have "significant economic value" which, in this case, "ought to accrue substantially to those who created them, namely the motorists of southern Maine."

Even before the credit give-away proposal was revealed, Dutremble and Gwadosky appointed a select committee to oversee the test program, examine a rash of complaints - such as long lines at test facilities and computer glitches that gave false failure readings - and report back to the Legislature early next year.

Gwadosky and Dutremble announced an accelerated timetable Friday, directing the committee to hold public hearings in the seven impacted counties soon and to examine not only the credit give-away plan, but other issues such as extending tests to large trucks and the rest of the state.

And if McKernan does not withdraw the air-quality credit proposal, they said, they will consider calling the Legislature back to consider air-quality policy changes.

McKernan will review their request, but probably will not change his mind.

The governor sees this as "a fairly good trade-off" that will provide 50 new Maine jobs and keep hundreds more from leaving the state if the waferboard firm were to relocate to Canada, according to Dan Austin, McKernan's press secretary.

Dutremble disagreed.

"While the speaker and I strongly believe in the need to create jobs for Maine people, we do not believe Maine motorists should be asked to foot the bill . . .," he said. "The Legislature did not agree to allow industry to pollute more as car owners were asked to pollute less."

STATUS OF SANCTIONS

Region: 1	State: Maine
Nonattainment Area:	Portland; Lewiston-Auburn Area; Knox & Lincoln Counties; Hancock & Waldo Counties; & Rest of State (attainment)
State Implementation Plan Element:	Failure to Submit Reasonably Available Control Technology Requirements for Nitrogen Oxides
Date Sanction Clock Expires:	7/15/94
Date Correction is Expected (best estimate):	Late August 1994
<p>Detailed Explanation of Why State Implementation Plan Submittal is Outstanding and When Correction is Expected:</p> <p>Maine's plan to include reasonably available control technology requirements for industrial sources that emit nitrogen oxides (NOx) was due by November 15, 1992. As part of the statutorily established Ozone Transport Region (12 northeastern States and Washington, D.C.), Maine was required to submit state-wide control regulations for NOx sources.</p> <p>Maine has had difficulty adopting a rule due to pressures from industry and indecision on the State's part. Because much of Maine is classified as "attainment," industry has pressured the State to either opt-out of the Ozone Transport Region, or petition for an exemption from the required NOx controls. Either option would likely require complex modeling to support the decision -- modeling is not expected to be available until late 1994.</p> <p>In December 1993, EPA issued guidance to allow commitments for rules (committals) rather than actual rules for relevant areas. This would have given Maine time to perform complex modeling to determine whether NOx controls were needed to reach attainment. In January 1994, Maine proposed a committal plan to adopt rules in non-moderate areas, and proposed actual rules for moderate areas. As a result of a recent court decision against EPA's use of committal plans in this situation, Maine decided not to move forward with the committal.</p> <p>Maine recently decided to move forward with a state-wide rule and sent it out for public comment on June 15, 1994. Maine is expected to adopt the rule by July 18, 1994. Formal submittal to EPA to correct the deficiency is expected no sooner than August 1994.</p>	

DRAFT - FOR INTERNAL USE ONLY

7/11/94

Wanted: 60,000 more auto repair technicians

The Associated Press

The crowded waiting rooms at automotive repair shops may soon get even busier.

The nation is facing a shortage of about 60,000 technicians to work on cars, which have evolved in recent years into highly computerized items. The problem is expected to worsen when new Clean Air Act requirements that enhance emissions inspections in many cities take effect in January.

"Many, many vehicles are expected to fail these tests and require repairs to emission control systems," said Geoff Sundstrom, a spokesman for the American Automobile Association.

"AAA is very concerned that motorists have access to technicians with the ability to fix these problems the first time. Right now we are not confident that enough trained personnel are available to service these vehicles."

The Environmental Protection Agency, which administers the Clean Air requirements, said 60,000 more technicians are needed to meet the demand.

Chuck Groves, special training programs manager for the Customer Service Division of Ford Motor Co., said the problem is unquestionably due to the growing complexity of automobiles.

In 1990 models, just 18 percent of a car's functional pieces were controlled by computer. Just four model years later, that has in-

creased to about 83 percent, Groves said.

"We have gone from what was a mechanical fix to now a diagnostic fix, and the one will not supplant the other," he said.

"There is a very disciplined approach today for computer-based skills and math skills. The approach to repair is radically different."

In addition to the shortage of people, many of the technicians already on the job just don't have the skills needed to fix advanced electronics — such as brakes and transmissions — and other technical components.

The EPA says the average technician is six to eight years behind in training.

Groves said technicians with unique expertise will be needed to handle alternative-fuel vehicles and "smart car" technology.

The good news is this creates a readily identifiable industry that job seekers can enter.

A technician typically needs a two-year degree from a technical school. Starting salaries are about \$25,000 to \$35,000 a year, and more skilled technicians can earn as much as \$75,000.

"You can no longer these days be an auto mechanic without being a qualified technician, an engineer," Labor Secretary Robert Reich told aspiring technicians at a recent contest.

Added Reich, "These are tough jobs, these are high-skill jobs, these are good paying jobs." **AN**



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460SUBCOMMITTEE ON
OVERSIGHT AND INVESTIGATIONSSUBCOMMITTEE ON
OVERSIGHT AND INVESTIGATIONS
JUN 24 1994To
R3
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THE ADMINISTRATOR

Honorable John D. Dingell
Chairman, Subcommittee on Oversight
and Investigations
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Thank you for your letter of March 25, 1994 regarding vehicle inspection and maintenance (I/M) programs. Responses to your specific questions are enclosed. Also enclosed are copies of our latest quarterly update of enhanced I/M implementation status, as well as copies of my correspondence with Governor Cuomo, per your request.

I hope this information is useful. Please contact us if you have any further questions.

Sincerely,

Carol M. Browner

Enclosures to Finn

Responses to Questions on Inspection and Maintenance Programs

Question:

I would appreciate your providing us with an up to date analysis of the status of the I/M program in those States required to institute by November 15, 1993 an enhanced I/M program and of the Environmental Protection Agency's (EPA) efforts to impose sanctions on some States.

Response:

Enclosed with this response is a copy of EPA's most recent quarterly status update for those states required to implement enhanced I/M programs, beginning in 1995. Per EPA's I/M rule, November 15, 1993 was the states' deadline for submitting a fully adopted I/M State Implementation Plan (SIP), which was to include authorizing legislation, implementing regulations, modeling demonstrations showing that the proposed program meets the I/M performance standard by the relevant milestone dates, and assorted other pieces of support documentation. As of April 1, 1994, 7 enhanced I/M states have submitted SIPs which were found complete; EPA is currently reviewing those SIPs to determine whether or not they are also approvable. Sixteen enhanced I/M states have either not submitted SIPs or have submitted SIPs which were judged incomplete; findings that started the 18-month clock leading to mandatory sanctions (absent corrective state action) have been made in all such states.

On January 7, 1994, EPA announced that it would propose discretionary sanctions in the states of Illinois, Indiana, and California, due to their failure to secure the necessary legal authority to implement enhanced I/M programs. This proposal was published in the Federal Register on January 24, 1994. Since that time, all three states have passed legislation which should allow them to meet EPA's performance standard for enhanced I/M, and the threat of discretionary sanctions has been lifted.

Question:

In the case of California, I understand that you issued a Federal Register notice of sanctions and on January 24, 1994 you canceled, by letter to Governor Pete Wilson, the accelerated deadline for imposing those sanctions. Please explain the effect of that cancellation on the Federal Register notice.

Response:

Given the disruption caused by the January 17, 1994 earthquake, EPA wrote to Governor Wilson on January 24, 1994, announcing the intention to postpone the accelerated deadline for imposing sanctions in California. This was not a cancellation of discretionary sanctions, nor was it a removal of the threat of mandatory sanctions under the Clean Air Act (a fact clearly indicated in the letter cited). Since the Federal Register notice of proposed, discretionary sanctions included a specific date by which sanctions might be imposed (i.e., May 15, 1994), the effect of the letter was to indefinitely postpone that specific deadline. The notice also included public hearing dates for the notice, which were subsequently canceled by way of a second notice, published in the Federal Register on March 2, 1994.

Question:

Please also explain the status of I/M negotiations with the State [California], including the issues involved. An article in the March 14, 1994 edition of the Washington Post suggests that you have reached a compromise with California. What are the differences between California's program and the federal rule, and what are the cost differences?

Response:

In the January 24, 1994 letter to Governor Wilson, EPA also indicated its willingness to continue to work toward reaching a mutually acceptable agreement between EPA and California on the enhanced I/M issue. Such work was completed with the signing of a Memorandum of Agreement between the U.S. EPA and California EPA on March 21, 1994, and the subsequent signing of amendatory legislation by Governor Wilson on March 30, 1994.

EPA cannot accept a program from any state, including California that does not meet the requirements of the I/M rule. EPA's I/M rule was specifically designed to allow states flexibility in their I/M programs by including not a mandatory program design but rather a performance standard. The performance standard addresses a range of possible program parameters, such as inspection frequency, network type, test types, vehicle coverage, and pass/fail cutpoints. States need not implement the performance standard program element for element - rather, they must demonstrate that the program they propose to implement instead will achieve the same or greater emission reductions than would be achieved by the performance standard program under the same local conditions of vehicle mix, average speed, average temperature and fuel characteristics. The program agreed to by California and EPA meets the enhanced I/M performance standard required by the I/M rule.

To the extent that the two program designs do differ, the California proposal is actually more complex and difficult to administer and considerably more costly to motorists. EPA has estimated that its model biennial enhanced I/M program design would cost motorists approximately \$18-\$20 per test, payable once every other year. The California program, on the other hand, is estimated to cost approximately \$50-\$75 per test for vehicles 2 and 4 years old, and roughly \$30-\$40 per test for vehicles 6 years old and older. The California program will fail more cars, due to the proposal's wider vehicle type and model year coverage, and its much stricter pass-fail criteria. Average repair costs will also be higher in California, given the State's decision to deny waivers to vehicles identified as chronic gross polluters.

Given the State's proposed tightening of most program parameters, it is possible for California to weaken some other parameters and still meet the minimum performance standard. In the case of the California proposal, the State has decided to allow vehicles less than 6 years old to go to test-and-repair stations, where they will receive some alternative to the IM240 test (i.e., either the repair grade 240, or a 4-mode steady-state test). All other vehicles would be required to go to a test-only, IM240-based test site.

As part of its agreement with California, EPA will also consider the results of a \$12 million pilot study to be conducted and funded by the State to determine the effectiveness of various alternative vehicle targeting and testing strategies.

Question:

An article in the press indicates that Virginia seeks similar treatment [to that applied to California]. Are you having similar discussions with other States?

Response:

News of the California proposal has generated interest in some of the other, enhanced I/M states, including Virginia, Nevada, Pennsylvania, New York, Georgia, and Louisiana. While EPA has received many requests for additional information on the California proposal, the Agency has not entered into formal negotiations with any other state, nor has any other state chosen to adopt the California proposal. To the extent that EPA has entered into I/M-related discussions with other states, it has simply been to clarify pre-existing policy.

Question:

The February 28, 1994 edition of Automotive News reports that the State of New York wrote in January to the EPA seeking approval of alternatives to a centralized I/M program. That is surprising, because the former head of the State Department's Office of Environmental Conservation, who resigned on March 7 to join the International Paper Company, was an ardent supporter of the enhanced I/M program. Please advise me of your response to New York.

Response:

Enclosed with this response are copies of the letter received from Governor Cuomo, and the February 25, 1994 reply. In short, Governor Cuomo wrote to ask whether a test-and-repair, BAR90-based I/M program with increased enforcement would be cheaper and just as effective as a centralized, test-only, high-tech I/M program. The answer was (and is) no. Assuming that the Governor's question was inspired by a misunderstanding of the negotiations in California, the letter clarified that California was leaning toward a hybrid program which allowed a subset of motorists owning vehicles only less than 6 years old to decide whether they wanted to go to a test-and-repair or test-only station. This is distinctly different from the 100% test-and-repair design about which Governor Cuomo inquired.

Question:

Also enclosed is an Automotive News article of February 28, 1994 about the need to encourage drivers to maintain their vehicles and about the need for qualified technicians in the aftermarket area. The article states that EPA's original estimate of up to 11,600 new technicians is out-of-date and that the average technician is "six to eight years behind in training." Please explain when EPA made this estimate, the basis for it, and how it could be so far off the mark, less than two years after the rulemaking.

Response:

EPA's original estimate of the net job increases due to I/M was between 3,800 and 11,600 full-time equivalents (FTE) and was discussed in the preamble to the I/M rule. This range was based upon assumptions concerning the number of inspector positions lost as a result of program shifts from test-and-repair networks to test-only networks and the degree to which these are offset by job increases associated with new or expanding test areas, increased levels of repair work resulting from more accurate vehicle emission measurement, better vehicle diagnosis and higher

waiver limits, increased demand for aftermarket parts due to increased repairs, and increased construction work due to new site construction. The number of actual jobs created could vary greatly, depending upon the decisions individual states make concerning vehicle coverage, inspection frequency, network design, and test type. At the time of the original estimate, EPA was purposely conservative, and did not account for the possibility of program expansion beyond minimum geographic coverage requirements, the opting up of some basic I/M areas to enhanced I/M testing, or the possibility that many enhanced I/M areas would opt for decentralized, test-only systems (such as Texas and Nevada) or hybrid test-only and test-and-repair programs (such as California). EPA has not attempted to update the original projections, which EPA still considers to be an accurate estimate of the net job increases due to enhancement of I/M programs.

The statement about a shortfall of 60,000 qualified repair technicians attributed to EPA in the article actually comes from a 1992 issue of Intune, a GM/AC Delco publication. The number is therefore an industry estimate and not EPA's. The EPA employee cited in the article merely quoted the industry figure during a presentation before the National Automotive Dealers Association - a fact which the article does not make clear. The 60,000 technician shortfall is, appears to be, independent of any impact caused by I/M programs.

Question:

Finally, the State and local air administrators, in an August 17, 1992 letter to the EPA, expressed concern that the proposed I/M requirement "does not include a federal mandate for mechanic training and certification." They did not explain how such a program would be funded. They said that without such a mandate, the maintenance portion of the I/M program "is meaningless and the performance standard is vastly diminished." How has the EPA responded to this concern? What are EPA's plans? Please also provide EPA's latest estimate of I/M repair costs for the enhanced programs for pre-model year 1980 and 1990 vehicles and for post-1990 vehicles, taking into consideration warranties and the new sophisticated equipment.

Response:

While it is true that the I/M rule does not include a "mandate for mechanic...certification," the rule does require states to make sure that adequate service technician training is available. States do not have to pay for the training; the technicians or their employers would likely do that. The states just need to do what they can to encourage the availability of quality training.

This might include such efforts as coordinating with their departments of education and technician licensing to make them aware of the greater demands of the enhanced I/M programs and the potential that more technicians will be needing training than otherwise. EPA has gone to considerable lengths to make sure the automotive service industry (including the educational aspects of the industry) are fully aware of the requirements of the regulations and solicited their informed input as to what specific types of training will be necessary or helpful. A partial list of recent EPA activities aimed at strengthening the "M" side of I/M is enclosed.

Lastly, EPA's most current estimates of average I/M repair costs are the same as they were at the time of the I/M rulemaking and can be found in the November 1992 technical support document for that rule, entitled "I/M Costs, Benefits, and Impacts." Repair costs are divided into two categories: repairs resulting from tailpipe failures, and those due to the failure of a component check (whether evaporative system check or a visual, antitampering inspection). For 1981 and newer vehicles failing a two-speed idle test, the average repair cost is approximately \$75. For vehicles failing the IM240, the average repair cost is approximately \$150. This higher repair cost accounts for the additional and more thorough diagnosis needed to identify the causes of IM240 failures, as well as the possibility of the need for more expensive parts. For failure of the component checks, the following cost assumptions hold:

<u>Component</u>	<u>Pre-1981</u>	<u>1981+</u>
Air Pump	\$15	\$15
Catalyst Replacement	\$150	\$165
Misfueled Catalyst Replacement	\$175	\$190
Evaporative System Repair	\$5	\$5
PCV System Repair	\$5	\$5
Gas Cap Replacement	\$5	\$5

Recent EPA Efforts to Put the "M" Back in I/M

- NATEF Grant (\$700,000) - A three year grant (1992-1995) from EPA to the National Automotive Technicians Education Foundation to upgrade secondary and post-secondary auto technician training programs in certain CO and ozone non-attainment areas.
- NATEF Grant (\$250,000) - A one year grant from EPA to the National Automotive Technicians Education Foundation to administer the formalization of the Coordinating Committee for Automotive Repair (CCAR), a national organization formed through a partnership with EPA, industry, labor, and education to address auto technician training issues on a national basis. Within CCAR, EPA has been particularly supportive of subcommittees addressing training and education; issues of employee recruitment, and retention in the auto service field; and measures to assure proper availability of service information, diagnostic equipment and repair parts.
- EPA awarded a \$25,000 contract to the National Association of State Directors of Vocational Education (NASDVE) to develop a needs assessment for automotive programs in secondary and post-secondary institutions. The surveys have been distributed and will be compiled by Mitchell, Delmar and Aspire.
- EPA awarded a grant to the California Bureau of Automotive Repair to study the feasibility of a nationwide interactive satellite training program for practicing technicians. The study will be completed by June at which time a pilot satellite program will begin.
- ASE Diagnostic Test - The National Institute for Automotive Service Excellence (ASE) has developed an additional test category for its automobile test services. The new test, the Advanced Engine Performance Specialist test, is an advanced level exam that is being designed to measure the technicians' knowledge of the diagnostic skills necessary for sophisticated emissions and engine performance problems. EPA participated in the development of this test and is encouraging qualified technicians to take the test.
- EPA Guidance on Maintenance Issues - EPA has released several guidance documents pertaining to maintenance issues. The documents discuss performance monitoring, hotline services and technician training will be incorporated into a revision of the Office of Mobile Sources document titled "Supplemental Guidance for I/M Programs: Vehicle Repair, Technician Training and Certification, and Repair Shop Tracking."
- Service Information Rulemaking - EPA is currently developing regulations which will assure that all service information necessary to adequately maintain and repair vehicles for emission performance is available to the independent service technician as well as to new car dealer technicians. This rulemaking will be finalized by the end of the year.
- Diagnostic Procedures - EPA is exploring specific improvements in diagnostic procedures to assure proper problem diagnosis and vehicle repair at minimum consumer cost.
- I/M Workshop - EPA is holding a two day workshop on April 27 and 28 to assist state and local officials in preparing to meet the specific maintenance requirements for I/M 140, including logistics of technician training, establishing repair hotline, performance tracking of repair facilities as well as other initiatives.



STATE OF NEW YORK
EXECUTIVE CHAMBER
ALBANY 12224

January 31, 1994

Dear Administrator Browner:

The State of New York, and many other states, have been working diligently to meet the requirements of the 1990 Clean Air Act Amendments (CAAA). In doing so, we have relied upon the Environmental Protection Agency's (EPA) regulations and guidance regarding the elements of an acceptable State Implementation Plan (SIP).

As you know, New York State included an enhanced I&M program in its November 18, 1993 SIP submission to EPA that is designed to meet the requirements of the CAAA. To carry out that program, New York's Departments of Motor Vehicles and Environmental Conservation are now reviewing bids for a centralized test-only I&M program in both the downstate metropolitan region and three upstate regions. However, we are reluctant to move forward in the bid selection process if alternative I&M programs are acceptable to EPA.

For example, several organizations that would be affected by this program have suggested that a decentralized test-and-repair program employing an upgraded I&M 90 system, in conjunction with increased enforcement, would be less costly, more convenient, and equally effective in reducing emissions in comparison to a centralized system.

I would appreciate your reaction to this suggestion. The state of New York, like many other states, would benefit from a clear statement from EPA regarding its position on enhanced I&M.

Thank you in advance for your expeditious review of this matter.

Sincerely,

Kevin H. Brown

Honorable Carol Browner
Administrator
United States Environmental
Protection Agency
401 M Street, N.W.
Washington, D.C. 20515



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 25 1994

THE ADMINISTRATOR

Honorable Mario M. Cuomo
Governor, State of New York
Executive Chamber
Albany, N.Y. 12224

Dear Governor Cuomo:

I appreciate the opportunity to respond to your letter of January 31, 1994 regarding the enhanced vehicle inspection and maintenance (I/M) program. I hope this letter will address any questions you may have about EPA's position regarding enhanced I/M programs.

As you know, assuring that emissions from cars remain at the low levels to which they were designed and manufactured is one of the most cost effective ways to improve air quality. This is especially true in New York where the California low emission vehicle program and enhanced I/M will together play an important role in meeting the clean air goals set forth by Congress in 1990.

In your letter you asked whether a test-and-repair I/M program employing upgraded BAR 90 analyzers in conjunction with increased enforcement would be less costly, more convenient and equally effective in reducing emissions in comparison to a centralized test-only system. The answer is no on all counts.

I am sure questions arose in New York because of misconceptions about ongoing discussions between EPA and California concerning the design of an enhanced I/M program in that state. We are not discussing with California the type of program which you have described (i.e., one based on a test-and-repair network utilizing BAR 90 analyzers), and I can assure you that such a program would not comply with the I/M performance requirements of the Clean Air Act and EPA regulations and could result in sanctions being imposed. While no agreement has yet been reached with California, EPA will not agree to a program which fails to meet the enhanced I/M performance standards established in EPA regulations.

-2-

The major difference between the program which California is contemplating and New York's program is that California would exempt new vehicles from testing at its test-only IM240 facilities for the first two test cycles, allowing them to be tested in a test-and-repair station using a dynamometer test system that employs an enhanced analyzer. California would effectively have two parallel testing programs for several years, and the state would incorporate a number of additional elements to bring the program up to equivalence with minimum Federal standards. The program being discussed with California would also add significant dollar and personnel requirements and could affect motorist convenience. The additional elements include:

- * elimination of all waivers for cars which fail;
- * more stringent test standards which will lead to significantly higher vehicle failure rates;
- * more extensive and expensive monitoring and enforcement action than would be required under the type of program New York is pursuing.

If adopted, California's program would be significantly more expensive than New York's. Dynamometer test systems with an enhanced analyzer would cost at least \$30,000 more, limiting the stations which will be able to afford this investment. Since California would employ two I/M systems, the cost to motorists would be higher. We estimate that the cost per test in the test-and-repair portion of the program could be \$50 or more, with the test-only program and associated administrative costs significantly in excess of New York's program.

Given the severity of the air quality problems in New York, I encourage you to move forward expeditiously to implement the very cost-effective and consumer-oriented program that New York has carefully developed over the past eighteen months.

Sincerely,



Carol M. Browner

BAR90A

Areas	Type	CO Class	Ozone	Status	Start Date
Anchorage	Basic	Moderate >12.7	Attainment	Operating	7/85

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	None		None	
Start Date	July 1985		Unknown	
Network Type	Test-and-Repair		Test-and-Repair	
Test Fee	\$50		\$50	
Test Frequency	Annual		Annual	
Enforcement Type	Registraron Denial		Registraron Denial	
Weight Classes	12,000 lbs.		12,000 lbs.	
Waiver Type	Cost: \$250/\$500		Unknown	
Emission Tests	Two Speed 1975+		Two Speed 1975+	
Visual Checks	Catalyst 1975+		Catalyst 1975+	
	Inlet 1975+		Inlet 1975+	
	Air Pump 1975+		Air Pump 1975+	

STATUS

Required Program	Basic
Legislation	None Needed
1994 Session	January 10-May 10
SIP Finding Made	1/13/93
Role Status	Promulgated
RFP Stage	Not Applicable
Air Agency	Department of Environmental Conservation
I/M Agency	Department Health and Human Services

OVERVIEW

Regulations requiring BAR90 analyzers have been adopted and the State has agreed to the covert audit requirements for basic I/M programs. A SIP is expected within the next month or so but is likely to have problems due to administrative procedures and lack of full adoption.

ALASKA

Areas	Type	CO Class	Ozone	Status	Start Date
Fairbanks	Basic	Moderate	Attainment	Operating	7/85
CURRENT PROGRAM			FUTURE PROGRAM		
Sunset Date	None			None	
Start Date	July 1985			Unknown	
Network Type	Test-and-Repair			Hybrid under consideration	
Test Fee	\$35			\$35	
Test Frequency	Annual			Annual	
Enforcement Type	Registration Denial			Registration Denial	
Weight Classes	12,000 lbs.			12,000 lbs.	
Waiver Type	Cost: \$150			Unknown	
Emission Tests	Two Speed	1975+		Two Speed	1975+
Visual Checks	Catalyst	1975+		Catalyst	1975+
	Inlet	1975+		Inlet	1975+
	Lead Test	1975+		Lead Tests	1975+
	Air Pump	1975+		Air Pump	1975+
	PCV Valve	1975+		PCV Valve	1975+

STATUS**Required Program Basic**Legislation *None Needed*1994 Session *Jan 10-May 10*SIP *Finding Made 1/13/93*Rule Status *Promulgated*RFP Stage *Not Applicable*Air Agency *Department of Environmental Conservation*I/M Agency *North Star Borough***OVERVIEW**

Regulations requiring BAR90 analyzers have been adopted and the State has agreed to the covert audit requirements for basic I/M programs. A SIP is expected within the next month or so but is likely to have problems due to administrative procedures and lack of full adoption.

ARIZONA

Areas	Type	CO Class	Ozone	Status	Start Date
Phoenix	Basic	Moderate <12.7	Moderate	Operating	1/77
Tucson	Basic	Not Classified	Attainment	Operating	1/77

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	January 1998		January 1995	
Start Date	January 1977		January 1995	
Network Type	Test-Only		Test-Only	
Test Fee	\$5.75		\$12-\$18	
Test Frequency	Annual Testing		Biennial	
Enforcement Type	Registration Denial		Registration Denial	
Weight Classes	All vehicles		All vehicles	
Waiver Type	1967-74:\$50 1974-79:\$200 1981+:\$300		67-74:\$100 75-80:\$300 81+: \$450	
Emission Tests	Idle Test	1967+	IM240	81+ >8,500 lbs
	Loaded/Idle	1981+	Loaded/Idle	81+ <8,500 lbs
	Loaded/Idle	1967+ diesels	Idle Test	1967+
Visual Checks	Catalyst	1975+	Purge	1981+
	Inlet	1975+	Pressure	1975+
	Lead Test	1975+	Catalyst	1975+
	Air Pump	1975+	Inlet	1975+
			Air Pump	1975+
		PCV Valve	1975+	
		Evap/Gas Cap	1975+	

STATUS

Required Program	Basic
Legislation	Signed 11-12-93
1994 Session	Jan 10-April 23
SIP	Finding Made 2/15/93
Rule Status	Promulgated
RFP Stage	Awarded
Air Agency	Department of Environmental Quality
I/M Agency	Bureau of Vehicular Emissions Inspection

OVERVIEW

The State began loaded testing of 1981 and newer vehicles in January 1989. The State awarded a 7.5 year contract to Gordon-Darby in August, 1989, which was effective January 2, 1991. Legislation to upgrade the Phoenix I/M program to conduct IM240 and Evap testing was passed on 11/8/93 and signed by the governor on 11/12/93. The Tucson program will remain a basic I/M program. Rules for the enhanced program have been drafted and are being reviewed by the Governor's office. Under a normal processing schedule, rules could be finalized around September or October 1994. Legislation is pending to allow for emergency rule making.

CALIFORNIA - Basic Areas

Areas	Type	CO Class	Ozone	Status	Start Dat
Chico	Basic	Moderate <12.7	Transitional	Operating	3/91
Davis	Basic	Moderate <12.7	Serious	Operating	
Fairfield	Basic	Moderate <12.7	Moderate	Operating	3/91
Hemet-San Jacinto	Basic	Serious	Severe	Operating	3/84
Hesperia-Apple Valley	Basic	Attainment	Severe	Operating	3/91
Lompoc	Basic	Attainment	Moderate	Operating	7/90
Lancaster-Palmdale	Basic	Serious	Severe	Operating	7/90
Lodi	Basic	Attainment	Serious	Operating	4/88
Merced	Basic	Attainment	Serious	Operating	7/90
Modesto	Basic	Moderate <12.7	Serious	Operating	7/90
Napa	Basic	Moderate <12.7	Moderate	Operating	3/84
Palm Springs	Basic	Attainment	Severe	Operating	7/90
Salinas	Basic	Attainment	Attainment	Operating	1/91
San Francisco-Oakland	Basic	Moderate <12.7	Moderate	Operating	3/84

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	January 1999		
Start Date	March 1984, or later		
Network Type	Test-and-Repair		Test-and-Repair
Test Fee	Market (Average \$37 with certificate)		
Test Frequency	Biennial		Biennial
Enforcement Type	Registration Denial		Registration Denial
Weight Classes	All vehicles		All vehicles
Waiver Type	\$50 - \$300 depending on model year		Cost: \$450
Emission Tests	Idle Test	1966+	Two Speed
	Two Speed	1980+	1966+
Visual Checks	PCV Valve	1967+	PCV Valve
	Air Pump	1967+	Air Pump
	Evap Canister	1970+	Evap Canister
	EGR Valve	1973+	EGR Valve
	Catalyst	1975+	Catalyst
	Inlet	1975+	Inlet
			Pressure
			1970+

STATUS

OVERVIEW

Required Program Basic

Legislation Signed 3/30/94
 1994 Session Jan 3 - Recess August 31
 SIP Finding Made 12/30/93

Rule Status Not Drafted

RFP Stage Not Drafted

Air Agency California Air Resources Board

I/M Agency Bureau of Automotive Repair

The authorizing legislation does not implement minimum waiver requirements for model years 1968-1971 and 1981-1984 by the January 1, 1994 deadline included in the I/M rule. By January 1, 1995, however, the waiver minimum for all I/M program areas - basic and enhanced - will rise to a minimum expenditure of \$450 (adjusted by CPI).

CALIFORNIA - Enhanced Areas

Areas	Type	CO Class	Ozone	Status	Start Date
Bakersfield	Enhanced	Attainment	Serious	Operating	3/84
Fresno	Enhanced	Moderate <12.7	Serious	Operating	3/84
Los Angeles-Long Beach	Enhanced	Serious	Extreme	Operating	3/84
Oxnard-Ventura-1000 Oak	Enhanced	Serious	Extreme	Operating	3/84
Riverside-San Bernardino	Enhanced	Serious	Extreme	Operating	3/84
Sacramento	Enhanced	Serious	Serious	Operating	3/84
San Diego	Enhanced	Moderate <12.7	Serious	Operating	3/84

CURRENT PROGRAM

Sunset Date	January 1999	
Start Date	March 1984, or later	
Network Type	Test-and-Repair	
Test Fee	Market (Avg. \$37)	
Test Frequency	Biennial Testing	
Enforcement Type	Registration Denial	
Weight Classes	All vehicles	
Waiver Type	By MYs	
Emission Tests	Idle Test	1967+
	Two Speed	1980+
Visual Checks	PCV Valve	1967+
	Air Pump	1967+
	Evap Canister	1970+
	EGR Valve	1973+
	Catalyst	1975+
	Inlet	1975+

FUTURE PROGRAM

Start Date	January 1995	
Network Type	Hybrid	
Test Fee	Market (EPA estimates \$50-\$75)	
Test Frequency	Biennial	
Enforcement Type	Registration Denial	
Weight Classes	14,000 lbs.	
Waiver Type	Cost: \$450	
Emission Tests	IM240 (test-only)	1966+
	Load (test-repair)	at 2 and 4 yrs old
Visual Checks	Purge	1971+
	Pressure	1971+
	Full visual check	1971+

STATUS

Required Program	Basic/Enhanced
Legislation	Signed 3/30/94
1994 Session	January 3-Recess August 31
SIP	Finding Made 12/30/93
Rule Status	Not Drafted
RFP Stage	Not Drafted
Air Agency	California Air Resources Board
I/M Agency	Bureau of Automotive Repair

OVERVIEW

Amendments to make the I/M program authorized by S.B. 629 approvable (i.e., A.B. 2018, S.B. 528, and S.B. 198) were passed by the State legislature on March 17 and signed by the Governor on March 30, 1994. A Memorandum of Agreement between U.S. EPA and CalEPA was signed by Carol Browner and James Strock on March 21, 1994. Taken together, these documents detail a hybrid program which includes test-and-repair, loaded-mode testing of new vehicles at age 2 and 4, after which all vehicles become subject to test-only, high-tech testing. The agreement also includes a pilot study to be conducted by the State to determine if acceptable alternatives to DM240 exist, the role of RSD, and whether methods better than model year exist for targeting cars for test-only testing.

COLORADO

Areas	Type	CO Class	Ozone	Status	Start Date
Boulder	Basic	Moderate >12.7	Transitional	Operating	7/88
Colorado Springs	Basic	Moderate <12.7	Moderate	Operating	7/88
Denver	Enhanced	Moderate >12.7	Transitional	Operating	1/82
Fort Collins	Basic	Moderate <12.7	Attainment	Operating	7/88
Greeley	Basic	Not Classified	Attainment	Operating	1/88

CURRENT PROGRAM

Sunset Date	January 1994
Start Date	July 1988
Network Type	Test-and-Repair
Test Fee	\$9
Test Frequency	Mixed
Enforcement Type	Registration/Sticker
Weight Classes	All vehicles
Waiver Type	Cost: \$200
Emission Tests	Idle Test 1968+ Two Speed 1981+
Visual Checks	Catalyst 1975+ Inlet 1975+ Air Pump 1975+

FUTURE PROGRAM

Sunset Date	January 2002
Start Date	Denver: Jan 1995, Boulder July 1995
Network Type	Test-Only
Test Fee	~ \$20
Test Frequency	Mixed
Enforcement Type	Registration Denial
Weight Classes	All vehicles
Waiver Type	Cost: \$450
Emission Tests	Idle Test 1968+ IM240 1982+
Visual Checks	Catalyst 1975+ Inlet 1975+ Air Pump 1975+ Purge 1982+ Pressure 1982+

STATUS

Required Program *Basic/Enhanced*
 Legislation Signed *6/8/93*
 1994 Session *Jan 12 May 11*
 SIP *Submitted/Complete*
 Rule Status *Emergency Regulations Adopted*
 RFP Stage *Awarded December 1993*
 Air Agency *Department of Health*
 I/M Agency *Department of Revenue*

OVERVIEW

The current program design will be maintained in the basic I/M areas, except in Boulder where enhanced testing will begin in July 1995. The legislation exempts the first four model years. The enhanced program will begin in Boulder in July 1995. Basic areas are expected to be late in adoption of BAR90 analyzers. Pre-1982 vehicles will be tested in decentralized test-only stations. A contract has been awarded to Envirotest to set up and run the Denver/Boulder system.

CONNECTICUT

Areas	Type	CO Class	Ozone	Status	Start Date
Bridgeport-Milford	Enhanced	Moderate	Severe	Operating	1/83
Bristol	Basic	Moderate <12.7	Serious	Operating	1/83
Danbury	Enhanced	Moderate >12.7	Severe	Operating	1/83
Hartford	Enhanced	Moderate <12.7	Serious	Operating	1/83
New Britain	Enhanced	Moderate <12.7	Serious	Operating	1/83
New Haven-Meriden	Enhanced	Not Classified	Serious	Operating	1/83
New London-Norwich	Enhanced	Moderate <12.7	Serious	Operating	1/83
Norwalk	Enhanced	Moderate >12.7	Severe	Operating	1/83
Stamford	Enhanced	Moderate <12.7	Serious	Operating	1/83
Waterbury	Enhanced	Not Classified	Serious	Operating	1/83

CURRENT PROGRAM

Sunset Date	December 1993
Start Date	January 1983
Network Type	Test-Only
Test Fee	\$10
Test Frequency	Annual Testing
Enforcement Type	Windshield Sticker
Weight Classes	10,000 lbs.
Waiver Type	Cost: \$40
Emission Tests	Idle Test 1963+
Visual Checks	On waiver only

FUTURE PROGRAM

Sunset Date	July 2002
Start Date	January 1995
Network Type	Test-Only
Test Fee	\$20
Test Frequency	Biennial
Enforcement Type	Registration Suspension
Weight Classes	10,000 lbs.
Waiver Type	Cost: \$450
Emission Tests	Two Speed 1968+ 1M240 1981+
Visual Checks	Pressure 1971+ Purge 1981+

STATUS

Required Program	Enhanced
Legislation	Signed June 1993
1994 Session	February 9-May 4
SIP	Funding Made 1/26/94
Rule Status	Drafted
RFP Stage	Awarded 12/3/93
Air Agency	Department of Environmental Protection
I/M Agency	Department of Motor Vehicles

OVERVIEW

On December 3, 1993, the State selected Envirotec to run the I/M program. The State is still developing program regulations. Once they are finished the State will be able to submit its SIP.

DELAWARE

Areas	Type	CO Class	Ozone	Status	Start
Wilmington, DE-NJ-MD	Enhanced	Attainment	Severe	Operating	1/82
CURRENT PROGRAM		FUTURE PROGRAM			
Sunset Date	None	None			
Start Date	January 1983	Unknown			
Network Type	Test-Only	Test-Only			
Test Fee	None	Unknown			
Test Frequency	Annual	Unknown			
Enforcement Type	Registration Denial	Unknown			
Weight Classes	8,500 lbs.	Unknown			
Waiver Type	1968-81: \$75, 1981+: \$200	Unknown			
Emission Tests	Idle Test 1968+	Unknown			
Visual Checks	None	Unknown			

STATUS

Required Program *Enhanced*
 Legislation *Passed 11/4/93*
 1994 Session *January 11 - June 30*
 SIP *Finding Made 1/14/94*
 Rule Status *Unknown*
 RFP Stage *Unknown*
 Air Agency *Natural Resources and Conservation*
 I/M Agency *Department Motor Vehicles*

OVERVIEW

Funding authority was passed during a special legislative session on November 4, 1993. The Governor has indicated that he has all necessary legal authority to implement an enhanced I program meeting Clean Air Act requirements, although it appears that the funding authority recently passed expires at the end of the fiscal year and would have to be renewed annually. The State has not submitted a SIP or developed regulations. A pilot study on using remote sensing in the test lane as a screening prior to IM240 testing is planned.

DISTRICT OF COLUMBIA

Areas	Type	CO Class	Ozone	Status	Start Date
Washington, DC-MD-VA	Enhanced	Moderate <12.7	Serious	Operating	1/83
CURRENT PROGRAM		FUTURE PROGRAM			
Sunset Date	None	Unknown			
Start Date	January 1983	January 1996			
Network Type	Test-Only	Test-Only			
Test Fee	\$5	Unknown			
Test Frequency	Annual Testing	Biennial			
Enforcement Type	Windshield Sticker	Unknown			
Weight Classes	6,000 lbs.	Unknown			
Waiver Type	Value of vehicle	Unknown			
Emission Tests	Idle Test 1968+	Unknown			
Visual Checks	None	Unknown			

STATUS

Required Program *Enhanced*

Legislation *Passed <date>*

1994 Session *January 3-All Year*

SIP *Finding Made 1/14/94*

Rule Status *Drafted*

RFP Stage *Not Drafted*

Air Agency *Consumer and Regulatory Affairs*

I/M Agency *Department of Public Works*

OVERVIEW

Emergency enhanced I/M legislation, number 10-6, was passed by City Council. Among other things the bill changes the test frequency to biennial. Other changes necessary to meet EPA requirements would have to be addressed in the regulations. The District expects to finalize regulations in April, but is not showing draft regulations or sharing its thinking with EPA.

FLORIDA

Areas	Type	CO Class	Ozone	Status	Start Date
Miami-Hialeah	Basic	Attainment	Moderate	Operating	4/91
FLauderdale-Hollywood-Pompano Beach	Basic	Attainment	Moderate	Operating	4/91
Tampa-St. Petersburg-Clearwater	Basic	Attainment	Moderate	Operating	4/91
W Palm Beach-Boca Raton-Delray Beach	Basic	Attainment	Moderate	Operating	4/91

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	<i>Contract expires April 1998</i>		<i>Contract expires April 1998</i>	
Start Date	<i>April 1991</i>		<i>April 1991</i>	
Network Type	<i>Hybrid</i>		<i>Hybrid</i>	
Test Fee	<i>\$10</i>		<i>\$10</i>	
Test Frequency	<i>Annual</i>		<i>Annual</i>	
Enforcement Type	<i>Registration Denial</i>		<i>Registration Denial</i>	
Weight Classes	<i>10,000 lbs.</i>		<i>10,000 lbs.</i>	
Waiver Type	<i>Cost: \$100/\$200</i>		<i>Cost: \$100/\$200</i>	
Emission Tests	<i>Idle Test</i>	<i>1975+</i>	<i>Idle Test</i>	<i>1975+</i>
Visual Checks	<i>Catalyst</i>	<i>1980+</i>	<i>Catalyst</i>	<i>1980+</i>
	<i>Inlet</i>	<i>1980+</i>	<i>Inlet</i>	<i>1980+</i>
	<i>Gas Cap</i>	<i>1980+</i>	<i>Evap/Gas Cap</i>	<i>1980+</i>

STATUS

OVERVIEW

Required Program Basis:

Legislation *None needed*

1994 Session *February 8 - April 9*

SIP *Submitted/Complete*

Rule Status *Promulgated*

RFP Stage *Awarded*

Air Agency *Department of Environmental Regulation*

I/M Agency *Highway Safety and Motor Vehicles*

The State submitted redesignation requests prior to November 15, 1993 for all I/M program areas. As a result, the State is expected to upgrade to meet the requirements of the I/M rule, although there appears to be legal authority (but not funding) to do so.

GEORGIA

Areas	Type	CO Class	Ozone	Status	Start Date
Atlanta	Enhanced	Attainment	Serious	Operating	4/82

CURRENT PROGRAM

Sunset Date	Upon attainment	
Start Date	April 1982	
Network Type	Test-and-Repair	
Test Fee	\$10	
Test Frequency	Annual Testing	
Enforcement Type	Registration Denial	
Weight Classes	8,500 lbs.	
Waiver Type	Cost: \$50	
Emission Tests	Idle Test	Last 12 years
Visual Checks	Catalyst	Last 12 years
	Air Pump	Last 12 years
	Inlet	Last 12 years

FUTURE PROGRAM

Contract expires April 30, 2001	
May 1995	
Test-Only	
Unknown	
Biennial	
Registration Denial	
8,500 lbs.	
Cost: \$450	
Two Speed	1977+
1M240	1981+
Catalyst	1977+
Air Pump	1977+
Inlet	1977+
Purge	1981+
Pressure	1981+

STATUS

Required Program	Enhanced
Legislation	Signed Spring 1992
1994 Session	January 10-March 18
SIP	Submitted/Complete
Rule Status	Promulgated
RFP Stage	Bids Received
Air Agency	Department of Natural Resources
LM Agency	Department of Public Safety

OVERVIEW

The program will cover 9 out of 13 counties in the nonattainment area, and regulations would allow the DNR to expand the program if necessary to meet 15% requirements. A final RFP was issued at the end of July bidding both a nonexclusive and a multiple participant network. Contract award is being held up by concerns in the legislature over a test-only system, and by an effective anti-test-only campaign by local stations owners.

ILLINOIS

Areas	Type	CO Class	Ozone	Status	Start Date
Aurora	Basic	Attainment	Severe	Operating	5/86
Alton	Basic	Attainment	Severe	Operating	5/86
Chicago, IL - NW Indiana	Enhanced	Attainment	Severe	Operating	
Crystal Lake	Basic	Attainment	Severe	Not Operating	
East St. Louis, MO-IL	Basic	Attainment	Moderate	Operating	
Elgin	Basic	Attainment	Severe	Operating	
Joliet	Basic	Attainment	Severe	Operating	
Round Lake Beach-McHenry, IL-WI	Basic	Attainment	Severe	Operating	

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	<i>December 1995</i>				
Start Date	<i>May 1986</i>		<i>January 1995</i>		
Network Type	<i>Test-Only</i>		<i>Test-Only</i>		
Test Fee	<i>None</i>		<i>None</i>		
Test Frequency	<i>Mixed</i>		<i>Biennial</i>		
Enforcement Type	<i>License Suspension</i>		<i>License Suspension</i>		
Weight Classes	<i>All Vehicles</i>		<i>All vehicles</i>		
Waiver Type	<i>Low emission tune-up (no \$ limit)</i>		<i>Cost: \$450</i>		
Emission Tests	<i>Idle Test 1968+</i>	<i>1981+</i>	<i>Idle Test 1968+</i>	<i>1981+</i>	
	<i>Two Speed</i>		<i>IM240</i>	<i>1981+</i>	
Visual Checks	<i>On Waiver only</i>		<i>Purge 1981+</i>	<i>1968+</i>	
			<i>Pressure</i>	<i>1968+</i>	
			<i>Other</i>	<i>On waiver only</i>	

STATUS

OVERVIEW

Required Program *Basic/Enhanced*
Legislation *Signed 1/13/94*
1994 Session *January 12-Probably recess June 30*
SIP *Finding Made 12/30/93*
Rule Status *Being Drafted*
RFP Stage *Being Drafted*
Air Agency *Illinois EPA*
I/M Agency *Illinois EPA*

The State has opted-up to enhanced I/M in all areas to meet 15 requirements. Legislation provides a 3 year new car exemption and biennial testing of 1968 and newer vehicles. The State has a 3 year commitment of CMAQ funds for program implementation. A notice canceling discretionary sanctions was published in the Federal Register on March 3, 1994. Both regulations and an RFP are being drafted and are expected shortly. The State does have emergency rule making power, although the legislative authority passed for enhanced I/M give the Board longer than usual to finalize implementing regulations. The IEPA is planning to install an IM240 lane in Schaumburg by June 1994.

INDIANA

Areas	Type	CO Class	Ozone	Status	Start Date
Chicago Area Lake & Porter County	Enhanced	Attainment	Severe	Operating	6/84
Louisville Area Clark & Floyd County	Basic	Attainment	Moderate	Operating	6/84

CURRENT PROGRAM

Sunset Date	July 1993	
Start Date	June 1984	
Network Type	Test-Only	
Test Fee	None	
Test Frequency	Biennial Testing	
Enforcement Type	Registration Denial	
Weight Classes	10,000 lbs.	
Waiver Type	Pre-81: \$75, 1981+: \$150	
Emission Tests	Idle Test	1976+
	Two Speed	1981+
Visual Checks	Catalyst	1976+
	Inlet	1976+
	Evap Canister	1976+
	Air Pump	1976+

FUTURE PROGRAM

Test-Only	
None	
Biennial	
Registration Denial	
8,500 lbs.	
Cost: \$450	
Idle Test	1976+
IM240	1981+
Purge	1981+
Pressure	1976+
Catalyst	1976+
Evap/Gas Cap	1976+
PCV Valve	1976+

STATUS

Required Program	Basic/Enhanced
Legislation	Signed 3/4/94
1994 Session	January 5 - March 15
SIP	Finding Made 12/30/93
Rule Status	Drafted
RFP Stage	Drafted
Air Agency	Department of Environmental Management
I/M Agency	Indiana Vocational/Technical College

OVERVIEW

Legislation authorizing an enhanced I/M program in Lake and Porter counties was passed the State legislature on February 16, 1994 and signed by the Governor on March 4, 1994. A letter announcing the cancellation of discretionary sanctions was sent to the Governor on April 1, 1994, and a Federal Register to this effect has been drafted and is awaiting the RA's signature. Draft regulations are being developed and are expected to be proposed in early April. An RFP has been issued and the State has received one bid so far (Envirotest).

KENTUCKY

Areas	Type	CO Class	Ozone	Status	Start Da
Cincinnati, OH-KY	Basic	Attainment	Moderate	Not Operating	na
Huntington-Ashland	Basic	Attainment	Moderate	Not Operating	na

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	None
Start Date	None
Network Type	Test-Only
Test Fee	Unknown
Test Frequency	Annual
Enforcement Type	Registration Denial
Weight Classes	18,000 lbs.
Waiver Type	Cost: \$75/\$200
Emission Tests	Idle Test 1968+
	IM240 (Northern) Unknown
Visual Checks	Pressure 1981+
	Catalyst 1975+
	Inlet 1975+
	Air Pump 1975+
	PCV Valve 1975+
	Evap/Gas Cap 1975+
	Purge (Northern) Unknown

STATUS

OVERVIEW

Required Program *Basic*
 Legislation *None needed*
 1994 Session *January 4 - April 13*
 SIP *Funding Needed*
 Rule Status *Promulgated October 1993*
 RFP Stage *Drafted/Not Released*
 Air Agency *Environmental Protection Cabinet*
 I/M Agency *Environmental Protection Cabinet*

Kentucky DEP has drafted an RFP calling for an "enhanced" program in Northern Kentucky and a basic program in Ashland. The Department has not yet released the draft RFP outside of agency; release was expected in September of 1993 but has been delayed.

KENTUCKY

Areas	Type	CO Class	Ozone	Status	Start Date
Louisville	Basic	Attainment	Moderate	Operating	1/84
CURRENT-PROGRAM		FUTURE PROGRAM			
Sunset Date	Contract expires August 1997		Contract August 1997		
Start Date	January 1984		January 1984		
Network Type	Test-Only		Test-Only		
Test Fee	\$6		\$8.25		
Test Frequency	Annual		Annual		
Enforcement Type	Subpoena		Subpoena		
Weight Classes	18,000 lbs.		18,000 lbs.		
Waiver Type	Pre-81: \$15-\$30; 84+ \$100-\$200		Cost: \$75/\$200		
Emission Tests	Idle Test	1968+	Idle Test	1968+	
Visual Checks	None		Catalyst	1975+	
			Air Pump	1975+	
			Pressure	1976+	

STATUS

Required Program *Basic*
 Legislation *None needed*
 1994 Session *January 4 - April 13*
 SIP *Submitted/Complete*
 Rule Status *Promulgated 1/20/93*
 RFP Stage *Contract Awarded*
 Air Agency *Jefferson Co. Air Pollution Control District*
 I/M Agency *Jefferson Co. Air Pollution Control District*

OVERVIEW

The program was upgraded to include pressure testing and loaded preconditioning for the idle test beginning March 1, 1993. Louisville renewed its contract with Gordon-Darby on June 9, 1992. Regulations incorporating necessary changes were adopted January 20, 1993. A three bay diagnostic center staffed by master technicians became operational in early 1993. The diagnostic center issues all waivers. The program has been conducting pressure testing but not requiring repairs for those vehicles that fail.

LOUISIANA

Area	Type	CO Class	Ozone	Status	Start Date
Baton Rouge	Enhanced	Attainment	Serious	Operating	9/85
CURRENT PROGRAM		FUTURE PROGRAM			
Sunset Date	None	Unknown			
Start Date	September 1985	January 1995			
Network Type	Test-and-Repair	Test-Only			
Test Fee	\$10	\$10			
Test Frequency	Annual Testing	Biennial			
Enforcement Type	Windshield Sticker	Registration Denial			
Weight Classes	8,500 lbs.	10,000 lbs.			
Waiver Type	None	Cost: \$450			
Emission Tests	None	Two Speed	1976+		
		IM240	1981+		
Visual Checks	Catalyst	1980+	Purge	1981+	
	Inlet	1980+	Pressure	1976+	
	Lead Test	1980+	Catalyst	1981+	
	Air Pump	1980+	Inlet	1981+	
	PCV Valve	1980+			
	Gas Cap	1980+			

STATUS

Required Program *Enhanced*
 Legislation *Signed June 1993*
 1994 Session *April 25 - June 8*
 SIP *Finding Made 2/22/94*
 Rule Status *Drafted*
 RFP Stage *Drafted*
 Air Agency *Department of Environmental Quality*
 I/M Agency *Department of Environmental Quality*

OVERVIEW

Program implementation was halted when EPA announced a delay of sanctions in California. Thus, permanent regulations have not been adopted and an RFP has not been issued.

MAINE

Areas	Type	CO Class	Ozone	Status	Start Date
Lewiston-Auburn	Basic	Attainment	Moderate	Not Operating	
Portland	Enhanced	Attainment	Moderate	Not Operating	

CURRENT PROGRAM

Sunset Date
 Start Date
 Network Type
 Test Fee
 Test Frequency
 Enforcement Type
 Weight Classes
 Waiver Type
 Emission Tests
 Visual Checks

FUTURE PROGRAM

Contract expires July 2001
 July 1994
 Test-Only
 \$20
 Biennial
 Registration Denial/Suspension
 10,000 lbs.
 Cost: \$450
 1M240 1968+
 Purge 1981+
 Pressure 1971+

STATUS

Required Program *Enhanced*
 Legislation *Signed*
 1994 Session *January 5 - April 20*
 SIP *Submitted/Complete*
 Rule Status *Promulgated*
 RFP Stage *Contract Awarded*
 Air Agency *Department of Environmental Protection*
 I/M Agency *Department of Environmental Protection*

OVERVIEW

A contract to operate the program was awarded to Systems Control on April 15, 1993. Legislation passed in 1993 contained an exemption for vehicles driven less than 5,000 miles per year. Testing is scheduled to begin in July 1994.

MARYLAND

Areas	Type	CO Class	Ozone	Status	Start Date
Baltimore	Enhanced	Moderate <12.7	Severe	Operating	2/84
Hagerstown	Enhanced	Attainment	Attainment	Not Operating	na
Washington, DC-MD-VA	Enhanced	Moderate <12.7	Serious	Operating	2/84
Wilmington, DE-NJ-MD	Enhanced	Attainment	Severe	Operating	2/84

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	December 1991		2001
Start Date	February 1984		January 1995
Network Type	Test-Only		Test-Only
Test Fee	\$8.50		\$16 without oversight
Test Frequency	Biennial Testing		Biennial
Enforcement Type	Registration Suspension		Registration Suspension
Weight Classes	26,000 lbs.		26,000 lbs.
Waiver Type	75		Cost: \$450
Emission Tests	Idle Test 1977+		IM240 1977+
Visual Checks	Catalyst 1977+		Purge 1977+
	Inlet 1977+		Pressure 1977+

STATUS

OVERVIEW

Required Program *Enhanced*
 Legislation *Signed*
 1994 Session *January 12 - April 11*
 SIP *Finding Made 1/14/94*
 Rule Status *Drafted*
 RFP Stage *Awarded*
 Air Agency *Department of the Environment*
 I/M Agency *Department of Transportation*

Legislative authority for high-tech testing and geographic expansion was passed in April 1991. Authority is insufficient in two areas: the program is scheduled to sunset in 2001. Baltimore's attainment deadline is 2006; and, the waiver cost limit is required to be phased in with the \$450 limit not in effect until 1997. A contract to operate a high-tech I/M test program was awarded to MARTA on July 1, 1993. The State is developing regulations and will be able to submit a complete SIP when they are finalized.

MASSACHUSETTS

Areas	Type	CO Class	Ozone	Status	Start Date
Boston	Enhanced	Moderate <12.7	Serious	Operating	4/83
Brockton	Enhanced	Attainment	Serious	Operating	4/83
Fall River, MA-RI	Enhanced	Attainment	Serious	Operating	4/83
Fitchburg-Leominster	Enhanced	Attainment	Serious	Operating	4/83
Lawrence-Haverhill	Enhanced	Attainment	Serious	Operating	4/83
Lowell	Enhanced	Not classified	Serious	Operating	4/83
New Bedford	Enhanced	Attainment	Serious	Operating	4/83
Salem-Gloucester	Enhanced	Attainment	Serious	Operating	4/83
Springfield	Enhanced	Nonattainment	Serious	Operating	4/83
Worcester	Enhanced	Not classified	Serious	Operating	4/83

CURRENT PROGRAM

Sunset Date	None	
Start Date	April 1983	
Network Type	Test-and-Repair	
Test Fee	\$15	
Test Frequency	Annual Testing	
Enforcement Type	Windshield Sticker	
Weight Classes	8,500 lbs.	
Waiver Type	\$100	
Emission Tests	Idle Test	Last 15 years
Visual Checks	Catalyst	1980+
	Inlet	1980+
	Gas Cap	1980+

FUTURE PROGRAM

None, Contract length unknown	
January 1995	
Test-Only	
Unknown	
Biennial	
Registration Denial	
8,500 lbs.	
Cost: \$450	
Idle Test	1968+
IM240	1981+
Purge	1981+
Pressure	1971+

STATUS

Required Program	Enhanced
Legislation	Signed 1/14/94
1994 Session	January 5 - All year
	SIP Finding Made 1/26/94
Rule Status	Drafted
RFP Stage	Not Drafted
Air Agency	Department of Environmental Protection
I/M Agency	Registry of Motor Vehicles

OVERVIEW

The State is continuing development of regulations and an RFP.

MICHIGAN

Areas	Type	CO Class	Ozone	Status	Start Date
Ann Arbor	Basic	Attainment	Moderate	Not Operating	1/86
Detroit	Basic	Not classified	Moderate	Operating	12/85
Grand Rapids	Basic	Attainment	Moderate	Not Operating	na
Holland	Basic	Attainment	Moderate	Not Operating	na
Muskegon	Basic	Attainment	Severe	Not Operating	na
Port Huron	Basic	Attainment	Moderate	Not Operating	na

CURRENT PROGRAM

Sunset Date	None	
Start Date	January 1986	
Network Type	Test-and-Repair	
Test Fee	\$10	
Test Frequency	Annual Testing	
Enforcement Type	Registration Denial	
Weight Classes	8,500 lbs.	
Waiver Type	\$82	
Emission Tests	Idle Test	Last 9 years
Visual Checks	On waiver only	

FUTURE PROGRAM

West: January 1995
West: Test-Only; East: Test&Repair
West: \$24 cap
West: Biennial; East: Annual
Registration Denial
10,000 lbs.
West: \$300
West: Two-speed 1975+
West: IM240 1981+
East: Idle 1975+
Catalyst 1975+
Inlet 1975+
PCV Valve 1975+
Air Pump 1975+
Gas cap 1975+

STATUS

Required Program	Basic
Legislation	Signed
1994 Session	January 12 - All year
SIP	Submitted/Complete
Rule Status	Not Drafted
RFP Stage	Issued 1/17/94
Air Agency	Department of Natural Resources
I/M Agency	Department of Transportation

OVERVIEW

The Bureau of Automotive Regulation runs the current program but the Michigan DOT has the primary responsibility for developing the new I/M program in Western Michigan. Separate approaches are being planned for the eastern part of the State (Detroit-Ann Arbor) and the western part of the State (Grand Rapids-Muskegon). A test-only, biennial enhanced I/M program is planned for western Michigan. An RFP for the western Michigan program was issued and bids were accepted through March 31, 1994. Submission of a redesignation request is planned for Detroit-Ann Arbor but otherwise the basic, annual test-and-repair program will continue for now. Approval of a redesignation request for the Detroit area is likely, given 4 years with no violations of the ozone standard.

MINNESOTA

Areas	Type	CO Class	Ozone	Status	Start Date
Minneapolis-St. Paul	Basic	Moderate <12.7	Attainment	Operating	7/91
CURRENT PROGRAM			FUTURE PROGRAM		
Sunset Date	July 1997			July 1997	
Start Date	July 1991			July 1991	
Network Type	Test-Only			Test-Only	
Test Fee	\$8			\$8	
Test Frequency	Annual Testing			Annual	
Enforcement Type	Registration Denial			Registration Denial	
Weight Classes	8,500 lbs.			8,500 lbs.	
Waiver Type	Pre-81: \$75, 1981+: \$200			Cost: \$75/\$200	
Emission Tests	Idle Test 1976+			Idle Test 1976+	
Visual Checks	Catalyst 1976+			Catalyst 1976+	
	Inlet 1976+			Inlet 1976+	
	Gas Cap 1976+			Gas Cap 1976+	

STATUS

Required Program *Basic*
 Legislation *Not Drafted*
 1994 Session *February 22 - Late April*
 SIP *Submitted/Complete*
 Rule Status *Drafted*
 RFP Stage *Contract Awarded*
 Air Agency *Pollution Control Agency*
 I/M Agency *Pollution Control Agency*

OVERVIEW

Existing legislative authority allows for a test-only, basic I/M program, although legislative changes are needed to meet the I/M rule's waiver, engine-switching, and assorted other administrative requirements. Most necessary regulatory changes have been secured, but the legislative changes anticipated by early 1994 have yet to materialize. A study by the University of Minnesota, critical of the Minneapolis-St. Paul program's effectiveness, has renewed calls from some legislators for a repeal of the I/M program. An EPA response to this study has been prepared.

MISSOURI

Areas	Type	CO Class	Ozone	Status	Start Date
St. Louis	Basic	Not classified	Moderate	Operating	1/84

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date *January 1999*
Start Date *January 1984*
Network Type *Test-and-Repair*
Test Fee *\$7.00*
Test Frequency *Annual Testing*
Enforcement Type *Registration Denial*
Weight Classes *8,500 lbs.*
Waiver Type *Low-emission tune-up*
Emission Tests *Idle Test 1971+*
Visual Checks *Air Pump 1971+*
PCV Valve 1971+
Catalyst 1981+

Undetermined

STATUS

OVERVIEW

Required Program *Basic*

Legislation *Not Drafted*

1994 Session *January 5 - May 15*

SIP Finding Made *1/15/93*

Rule Status *Not Drafted*

RFP Stage *Not Drafted*

Air Agency *Department of Natural Resources*

I/M Agency *State Highway Patrol*

The Air Agency is considering opting up to enhanced I/M, but has not yet secured the necessary legal authority. A bill to provide such authority has died once in the Senate, although the same bill has recently been resurrected.

NEVADA

Areas	Type	CO Class	Ozone	Status	Start Date
Las Vegas	Enhanced	Moderate >12.7	Attainment	Operating	10/83
Reno	Basic	Moderate <12.7	Marginal	Operating	10/83

CURRENT PROGRAM

Sunset Date	None	
Start Date	October 1983	
Network Type	Test-and-Repair	
Test Fee	\$16.00-18.00	
Test Frequency	Annual Testing	
Enforcement Type	Registration Denial	
Weight Classes	All vehicles	
Waiver Type	Pre-81: \$100, 1981+: \$200	
Emission Tests	Two Speed	1968+
Visual Checks	Catalyst	1981+
	Inlet	1981+
	Air Pump	1981+

FUTURE PROGRAM

Sunset Date	None	
Start Date	September 1995	
Network Type	Decentralized test-only	
Test Fee	Estimated at \$45	
Test Frequency	Mixed	
Enforcement Type	Registration Denial	
Weight Classes	All vehicles	
Waiver Type	Cost: \$450	
Emission Tests	Idle Test	1968-1985
	IM240	1986+
Visual Checks	Catalyst	1981+
	Inlet	1981+
	Air Pump	1981+

STATUS

Required Program	Basic/Enhanced
Legislation	Signed
1994 Session	No regular session
SIP	Finding Needed
Rule Status	Drafted
RFP Stage	Not Drafted
Air Agency	Department of Environmental Protection
I/M Agency	Motor Vehicles and Public Safety

OVERVIEW

Broad legislative authority for enhanced I/M has been passed. A temporary hold placed on regulatory development has been lifted by the Governor, in light of the agreement in California. The State plans to proceed with development of a test-only program but postpone the decision on test type until completion of the California pilot study. Program implementation is scheduled to begin around September 1995, with enhanced testing of the phase-in portion of the fleet to be conducted from that time through the end of the year.

NEW HAMPSHIRE

Areas	Type	CO Class	Ozone	Status	Start Date
Manchester	Enhanced	Nonattainment	Marginal	Not Operating	na
Nashua	Enhanced	Non classified	Serious	Operating	10/87
Portsmouth-Dover-Rochester, NH-ME	Enhanced	Attainment	Serious	Not Operating	na

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	December 1993		Unknown		
Start Date	October 1987		Unknown		
Network Type	Test-and-Repair		Test-Only		
Test Fee	Market		Unknown		
Test Frequency	Annual Testing		Biennial		
Enforcement Type	Windshield Sticker		Registration Suspension		
Weight Classes	8,000 lbs.		26,000 lbs.		
Walver Type	\$50		Cost: \$450		
Emission Tests	Idle Test	Last 15 years	1M240	1981+	
			Two Speed	1968+	
Visual Checks	Catalyst	1985+	Purge	1981+	
			Pressure	1979+	

STATUS

Required Program	Enhanced
Legislation	Signed
1994 Session	January 5-Early May
SIP	Submitted/Complete
Rule Status	Promulgated
RFP Stage	Drafted
Air Agency	Air Resources Division
L/M Agency	Department of Safety

OVERVIEW

Legislation authorizing a test-only enhanced program was passed on July 2, 1993. The program covers Rockingham, Hillsborough, Merrimack, and Stafford counties. RFP development is proceeding.

NEW JERSEY

Areas	Type	CO Class	Ozone	Status	Start Date
Atlantic City	Enhanced	Not Classified	Moderate	Operating	2/74
Bergen-Passaic	Enhanced	Moderate <12.7	Severe	Operating	2/74
Monmouth-Ocean	Enhanced	Moderate <12.7	Severe	Operating	2/74
Newark	Enhanced	Moderate <12.7	Severe	Operating	2/74
Trenton	Enhanced	Not Classified	Severe	Operating	2/74
Vineland-Millville-Bridgeton	Enhanced	Moderate <12.7	Severe	Operating	2/74
Jersey City	Enhanced	Moderate <12.7	Severe	Operating	2/74
Middlesex-Somerset-Hunterdon, NJ	Enhanced	Moderate	Severe	Operating	2/74

CURRENT PROGRAM

Sunset Date	None	
Start Date	February 1974	
Network Type	Hybrid	
Test Fee	None at test-only	
Test Frequency	Annual Testing	
Enforcement Type	Windshield Sticker	
Weight Classes	10,000 lbs.	
Waiver Type	None	
Emission Tests	Idle Test	
Visual Checks	Catalyst	1975+
	Inlet	1975+

FUTURE PROGRAM

Sunset Date	Unknown	
Start Date	Unknown	
Network Type	Test-Only	
Test Fee	Unknown	
Test Frequency	Biennial	
Enforcement Type	Registration Denial	
Weight Classes	All	
Waiver Type	Cost: \$450	
Emission Tests	IM240	1986+
	Two Speed	1968+
Visual Checks	Pressure	1971+
	Purge	1971+
	Catalyst	1975+

STATUS

Required Program	Enhanced
Legislation	None Needed
1994 Session	January 11 - All Year
SIP Finding Made	2/7/94
Rule Status	Drafted
RFP Stage	Not Drafted/Due June 1993
Air Agency	Dept of Environmental Protection & Energy
I/M Agency	Division of Motor Vehicle Services

OVERVIEW

The DEP and MVS have proposed regulations for an enhanced, test-only I/M program. Revisions are being made to adopt EPA's fast-pass/fast-fail algorithm which will reduce the number of new lanes and stations the State needs to install to provide IM240 testing. The State is pilot testing the algorithm at one of the official test lanes. The State is unlikely to submit a SIP before July 15. The State appears to be preparing to press EPA to approve a hybrid program.

NEW MEXICO

Areas	Type	CO Class	Ozone	Status	Start Date
Albuquerque	Basic	Moderate <12.7	Attainment	Operating	3/89

CURRENT PROGRAM

Sunset Date	Upon Maintenance	
Start Date	March 1989	
Network Type	Test-and-Repair	
Test Fee	Market	
Test Frequency	Biennial	
Enforcement Type	Registration Denial	
Weight Classes	26,000 lbs.	
Waiver Type	tune-up	
Emission Tests	Idle Test	1975+
Visual Checks	Catalyst	1975+
	Air Pump	1975+
	Inlet	1975+
	Lead Test	1975+

FUTURE PROGRAM

Upon Maintenance	
Unknown	
Pursuing test-only	
Unknown	
Biennial	
Registration Denial	
26,000 lbs.	
Cost: \$75/\$200	
Undecided	Undecided
Undecided	Undecided

STATUS

Required Program *Basic*

Legislation *Signed Early 1994*

1994 Session *January 18-February 17*

SIP *Finding Made 1/14/94*

Rule Status *Drafted*

RFP Stage *Not Drafted*

Air Agency *Environmental Health Department*

L/M Agency *Environmental Health Department*

OVERVIEW

The City has not experienced CO violations and is preparing to submit a redesignation request. Previous interest in upgrading to enhanced has lapsed.

NEW YORK

Area	Type	CO Class	Ozone	Status	Start Date
Albany-Schenectady-Troy	Enhanced	Attainment	Marginal	Not Operating	na
Binghamton	Enhanced	Attainment	Attainment	Not Operating	na
Buffalo	Enhanced	Attainment	Marginal	Not Operating	na
Glen Falls	Enhanced	Attainment	Attainment	Not Operating	na
Jamestown-Dunkirk	Enhanced	Attainment	Attainment	Not Operating	na
Niagara Falls	Enhanced	Attainment	Marginal	Not Operating	na
New York	Enhanced	Moderate >12.7	Severe	Operating	1/81
Orange County	Enhanced	Moderate <12.7	Severe	Not Operating	na
Poughkeepsie	Enhanced	Attainment	Marginal	Not Operating	na
Rochester	Enhanced	Attainment	Attainment	Not Operating	na
Syracuse	Enhanced	Moderate <12.7	Attainment	Not Operating	na
Utica-Rome	Enhanced	Attainment	Attainment	Not Operating	na

CURRENT PROGRAM

Sunset Date	None	
Start Date	January 1981	
Network Type	Test-and-Repair	
Test Fee	\$17	
Test Frequency	Annual Testing	
Enforcement Type	Windshield Sticker	
Weight Classes	All vehicles	
Waiver Type	Waiver	
Emission Tests	Idle Test	1968+
Visual Checks	Catalyst	1984+
	Air Pump	1984+
	Evap Canister	1984+
	PCV Valve	1984+

FUTURE PROGRAM

Contract expires in	2002	
1/1/95-Upstate; 1/1/96-NYC		
Test-Only		
\$21 in NYC + \$4 oversight		
Biennial		
Registration Suspension		
10,000 lbs.		
Cost: \$450		
1M240	1981+	
Idle Test	1968+	
Catalyst	1968+	
Inlet	1968+	
Purge	1981+	
Pressure	1971+	

STATUS

Required Program	Enhanced
Legislation	Signed
1994 Session	January 5-All Year
SIP	Finding Made 2/2/94
Rule Status	Drafted
RFP Stage	Awarded November 1993
Air Agency	Department of Environmental Conservation
I/M Agency	Department of Motor Vehicles

OVERVIEW

New York is planning a combined biennial safety and emissions test, to begin 1/1/95 in upstate New York and 1/1/96 in New York City. The system will be contractor operated. The State has awarded the contract for NYC to Envirotest at \$21 per vehicle (plus \$4 per vehicle for State oversight). The award for upstate New York is due soon. However, contract award and signing are on hold until DMV provides the Governor an analysis of the California program.

NORTH CAROLINA

Areas	Type	CO Class	Ozone	Status	Start Date
Charlotte	Basic	Attainment	Moderate	Operating	12/82
Durham	Basic	Moderate <12.7	Moderate	Operating	11/86
Gastonia	Basic	Attainment	Moderate	Operating	7/92
Greensboro	Basic	Moderate <12.7	Moderate	Operating	7/91
High Point	Basic	Moderate <12.7	Moderate	Operating	1/92
Raleigh	Basic	Moderate <12.7	Moderate	Operating	11/86
Winston-Salem	Basic	Moderate <12.7	Moderate	Operating	1/92

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	None	Sunset Date	None
Start Date	December 1981	Start Date	December 1981
Network Type	Test-and-Repair	Network Type	Test-and-Repair
Test Fee	\$15.40	Test Fee	\$17 for safety and emissions
Test Frequency	Annual	Test Frequency	Annual
Enforcement Type	Windshield Sticker	Enforcement Type	Windshield Sticker
Weight Classes	All vehicles	Weight Classes	All vehicles
Waiver Type	Cost \$50	Waiver Type	Cost: \$75/\$200
Emission Tests	Idle Test 1975+	Emission Tests	Idle Test 1975+
Visual Checks	Catalyst 1975+	Visual Checks	Catalyst 1975+
	Inlet 1975+		Inlet 1975+
	Air Pump 1975+		Air Pump 1975+
	PCV Valve 1975+		PCV Valve 1975+
	Evap/Gas Cap 1975+		Evap/Gas Cap 1975+

STATUS

OVERVIEW

Required Program Basic

Legislation None needed

1994 Session May 24-July

SIP Finding Made 11/15/93

Rule Status Promulgated Changes 11/91 and 7/93

RFP Stage Not Applicable

Air Agency Environmental Health & Natural Resources

I/M Agency Department of Motor Vehicles

All of the areas have submitted redesignation requests. The program was expanded to include BAR90 analyzers in 1991-1992. Other changes regarding waivers and enforcement were also needed.

OHIO

Areas	Type	CO Class	Ozone	Status	Start Date
Akron	Basic	Moderate <12.7	Moderate	Not Operating	12/90
Cincinnati	Basic	Attainment	Moderate	Operating	2/88
Cleveland	Basic	Moderate <12.7	Moderate	Operating	2/88
Dayton	Basic	Attainment	Moderate	Not Operating	na
Hamilton	Basic	Attainment	Moderate	Operating	2/88
Lorain-Elyna	Basic	Moderate <12.7	Moderate	Operating	2/88
Middletown	Basic	Attainment	Moderate	Operating	2/88
Springfield	Basic	Attainment	Moderate	Not Operating	na
Toledo, OH-MI	Basic	Attainment	Moderate	Not Operating	na

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	None
Start Date	December 1981
Network Type	Hybrid
Test Fee	\$8
Test Frequency	Annual Testing
Enforcement Type	Registration Denial
Weight Classes	8,500 lbs.
Waiver Type	Pre-81: \$100, 1981+: \$200
Emission Tests	Idle Test 1975+
Visual Checks	Catalyst 1980+
	Inlet 1980+
	Lead Test 1980+
	Air Pump 1980+
	PCV Valve 1980+
	Gas Cap 1980+
	EGR Valve 1980+

STATUS

Required Program	Basic
Legislation	Signed
1994 Session	January 3- All year
	SIP Finding Made 1/21/94
Rule Status	Drafted
RFP Stage	Drafted
Air Agency	Ohio EPA
I/M Agency	Ohio EPA

OVERVIEW

Although only required to implement basic I/M, the Ohio legislature passed a bill allowing individual MPO's to opt-up to enhanced I/M. An RFP calling for both basic and enhanced I/M program designs has been drafted; contract award is due in February 1994. Thus far, Dayton, Cincinnati, and Cleveland are all considering enhanced I/M (even though Dayton plans to redesignate); Toledo is requesting redesignation; and Columbus, which is not required to implement I/M, is requesting inclusion in the basic I/M program.

OREGON

Areas	Type	CO Class	Ozone	Status	Start Date
Medford	Basic	Moderate <12.7	Attainment	Operating	1/86
Portland-Vancouver, OR-WA	Basic	Moderate <12.7	Marginal	Operating	7/75

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	None		None
Start Date	July 1975/January 1986		July 1975/January 1986
Network Type	Test-Only		Test-Only
Test Fee	\$10		\$10
Test Frequency	Biennial		Biennial
Enforcement Type	Registration Denial		Registration Denial
Weight Classes	8,500 lbs.		26,000 lbs.
Waiver Type	None		None
Emission Tests	Two Speed 1975+		Two Speed 1974+
Visual Checks	Catalyst 1975+		Catalyst 1975+
	Inlet 1975+		Inlet 1975+
	Air Pump 1981+		Air Pump 1981+
	PCV Valve 1981+		PCV Valve 1981+
	Evap/Gas Cap 1981+		Evap/Gas Cap 1981+

STATUS

Required Program	Basic
Legislation	None needed
1994 Session	No regular session
SIP	Submitted/Complete
Rule Status	Promulgated
RFP Stage	State-run
Air Agency	Department of Environmental Quality
LM Agency	Department of Environmental Quality

OVERVIEW

The DEQ obtained funding to upgrade from BAR74 manual analyzers to computerized analyzers. There had been some efforts towards implementing an enhanced program beginning 1997, but this has been set aside for the time being.

PENNSYLVANIA

Areas	Type	CO Class	Ozone	Status	Start Date
Allentown-Bethlehem-Easton, PA-NJ	Enhanced	Attainment	Marginal	Operating	6/84
Altoona	Enhanced	Attainment	Marginal	Not Operating	na
Erie	Enhanced	Attainment	Marginal	Not Operating	na
Harrisburg-Lebanon-Carlisle	Enhanced	Attainment	Marginal	Not Operating	na
Johnstown	Enhanced	Attainment	Marginal	Not Operating	na
Lancaster	Enhanced	Attainment	Marginal	Not Operating	na
Philadelphia, PA-NJ	Enhanced	Moderate <	Severe	Operating	6/84
Pittsburgh	Enhanced	Not Classified	Moderate	Operating	6/84
Reading	Enhanced	Attainment	Marginal	Not Operating	na
Scranton-Wilkes-Barre	Enhanced	Attainment	Marginal	Not Operating	na
Sharon	Enhanced	Attainment	Marginal	Not Operating	na
State College	Enhanced	Attainment	Marginal	Not Operating	na
Williamsport	Enhanced	Attainment	Marginal	Not Operating	na
York	Enhanced	Attainment	Marginal	Not Operating	na

CURRENT PROGRAM

Sunset Date	None	
Start Date	June 1984	
Network Type	Test-and-Repair	
Test Fee	\$8.48	
Test Frequency	Annual Testing	
Enforcement Type	Windshield Sticker	
Weight Classes	11,000 lbs.	
Waiver Type	Pre-81: \$25, 1981+: \$50	
Emission Tests	Idle Test	Last 25 years
Visual Checks	On waiver only	

FUTURE PROGRAM

Contract expires in	2002	
Start Date	January 1995	
Network Type	Test-Only	
Test Fee	Under \$20 with oversight	
Test Frequency	Biennial	
Enforcement Type	Registraron Denial	
Weight Classes	8,500 lbs.	
Waiver Type	Cost: \$450	
Emission Tests	IM240	1977+
	Idle Test	1968+
Visual Checks	Purge	1977+
	Pressure	1977+

STATUS

Required Program	Enhanced
Legislation	Signed
1994 Session	January 4- All year
SIP	Submitted/Complete
Rule Status	Promulgated
RFP Stage	Awarded
Alr Agency	Department Environmental Resources
I/M Agency	Department of Transportation

OVERVIEW

PennDOT awarded a contract to Envirotec. Final per vehicle cost of the program has not been settled but is expected to be under \$20 for vehicles tested on time. The program area could encompass 6.2 million vehicles in 33 counties; eight counties with 430,000 vehicles excluded as largely rural. Two stop-work bills have been introduced since December; neither got out of committee. It appears that another stop work bill, or a bill requiring a California type program may be introduced shortly.

RHODE ISLAND

Areas	Type	CO Class	Ozone	Status	Start Da.
Providence	Enhanced	Attainment	Serious	Not Operating	na
Newport	Basic	Attainment	Serious	Not Operating	na

CURRENT PROGRAM

Sunset Date	None
Start Date	Not a SIP I/M program
Network Type	Test-and-Repair
Test Fee	\$4
Test Frequency	Annual Testing
Enforcement Type	Registration/Sticker
Weight Classes	8,000 lbs.
Waiver Type	None
Emission Tests	Idle Test 1967+
Visual Checks	None

FUTURE PROGRAM

Sunset Date	Unknown
Start Date	January 1995
Network Type	Test-Only
Test Fee	Unknown
Test Frequency	Biennial
Enforcement Type	Registration Suspension
Weight Classes	10,000 lbs.
Waiver Type	Cost: \$450
Emission Tests	IM240
Visual Checks	Purge
	Pressure

STATUS

Required Program	Enhanced
Legislation	Signed
1994 Session	January 4 - Mid July
	SIP Finding Made 1/26/94
Rule Status	Not Drafted
RFP Stage	Not Drafted
Air Agency	Department of Environmental Management
I/M Agency	Department of Transportation

OVERVIEW

The State is planning to keep safety inspections decentralized while pursuing a test-only, biennial emissions inspection program. Legislation (Bill Number 93-S-462) was adopted by the Joint Committee on the Environment on July 26, 1993. The State is pursuing use of CMAQ funds for planning of the new program. Regulations and an RFP are currently under development. The State expects to finalize regulations in July and submit its SIP on or before July 15.

TENNESSEE

Areas	Type	CO Class	Ozone	Status	Start Date
Memphis, TN-AR-MS	Basic	Moderate <12.7	Marginal	Operating	1/85

CURRENT PROGRAM

Sunset Date *None*
 Start Date *January 1985*
 Network Type *Test-Only*
 Test Fee *\$6*
 Test Frequency *Annual*
 Enforcement Type *Registration Denial*
 Weight Classes *8,500 lbs.*
 Waiver Type *None*
 Emission Tests *Idle Test*

Last 12 MYRs

Visual Checks *None*

FUTURE PROGRAM

None
January 1985
Test-Only
\$6
Annual
Registration Denial
8,500 lbs.
None
Idle Test

1975+

None

STATUS

Required Program *Basic*
 Legislation *None Needed*
 1994 Session *January 12-April 15*
 SIP *Finding Made 1/15/93*
 Rule Status *Not Drafted*
 RFP Stage *Not Applicable*
 Air Agency *Metropolitan Health Department*
 I/M Agency *Motor Vehicle Inspection Bureau*

OVERVIEW

Memphis has submitted a redesignation request. The current program does not meet geographic coverage requirements, but if redesignated, expansion is not likely to be necessary. Adequate legal authority and program upgrades will be needed as a contingency measure.

TENNESSEE

Areas	Type	CO Class	Ozone	Status	Start Dat
Nashville	Basic	Moderate	Marginal	Operating	8/83

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	None	Contract expires	December 31, 1995
Start Date	August 1983	August	1983
Network Type	Test-Only	Test-Only	
Test Fee	None	\$6	
Test Frequency	Annual	Annual	
Enforcement Type	Registration Denial	Registration Denial	
Weight Classes	8,500 lbs.	8,500 lbs.	
Waiver Type	None	None	
Emission Tests	Idle Test	Idle Test	1975+
Visual Checks	None	Catalyst	1975+
		Inlet	1975+
		Evap/Gas Cap	1975+

STATUS

Required Program *Basic*
 Legislation *None Needed*
 1994 Session *January 12-April 15*
 SIP *Funding Made 1/15/93*
 Rule Status *Promulgated November 9, 1993*
 RFP Stage *Awarded*
 Air Agency *Department of Conservation*
 L/M Agency *Motor Vehicle Inspection Bureau*

OVERVIEW

Nashville has submitted a redesignation request. The Tennessee Air Pollution Control Board has promulgated regulations allowing the implementation of the program in the counties surrounding Davidson.

TEXAS

Areas	Type	CO Class	Ozone	Status	Start Date
Houston	Enhanced	Attainment	Severe	Operating	7/84
Denton	Basic	Attainment	Moderate	Not Operating	na
Galveston	Basic	Attainment	Severe	Not Operating	na
Texas City	Basic	Attainment	Severe	Not Operating	na

CURRENT PROGRAM

Sunset Date	None	
Start Date	July 1984/January 1986	
Network Type	Test-and-Repair	
Test Fee	\$8.50 - \$17.25	
Test Frequency	Annual	
Enforcement Type	Windshield Sticker	
Weight Classes	8,500 lbs.	
Waiver Type	Cost: \$200/\$250	
Emission Tests	Idle Test	1968+
Visual Checks	Catalyst	1980+
	Inlet	1980+
	Lead Test	1980+

FUTURE PROGRAM

Contract Expires	December 31, 2001	
Start Date	January 1995	
Network Type	Test-Only	
Test Fee	\$23 with oversight	
Test Frequency	Biennial	
Enforcement Type	Registration Denial	
Weight Classes	10,000 lbs.	
Waiver Type	Cost: \$450	
Emission Tests	Loaded/Idle	1968+
	IM240	1984+
Visual Checks	Pressure	1971+
	Purge	1984+
	Catalyst	1975+
	Inlet	1975+

STATUS

Required Program	Enhanced
Legislation	Signed
1994 Session	No regular session
	SIP Submitted/Complete
Rule Status	Promulgated
RFP Stage	Awarded
Air Agency	Natural Resource Conservation Commission
I/M Agency	Natural Resource Conservation Commission

OVERVIEW

The State has awarded a contract for a decentralized, test-only network that will be overseen by a managing contractor.

TEXAS

Areas	Type	CO Class	Ozone	Status	Start Date
El Paso	Enhanced	Moderate <	Serious	Operating	1/86
CURRENT PROGRAM			FUTURE PROGRAM		
Sunset Date	None		Contract Expires December 31, 2001		
Start Date	July 1984/January 1986		January 1995		
Network Type	Test-and-Repair		Test-Only		
Test Fee	\$8.50 - \$17.25		\$22 with oversight		
Test Frequency	Annual		Biennial		
Enforcement Type	Windshield Sticker		Registration Denial		
Weight Classes	8,500 lbs.		10,000 lbs.		
Waiver Type	Cost: \$200/\$250		Cost: \$450		
Emission Tests	Idle Test	1968+	Loaded/Idle	1968+	
			IM240	1988+	
Visual Checks	Catalyst	1980+	Pressure	1971+	
	Inlet	1980+	Purge	1988+	
	Lead Test	1980+	Catalyst	1975+	
			Inlet	1975+	

STATUS

Required Program *Enhanced*Legislation *Signed*1994 Session *No regular session*SIP *Submitted/Complete*Rule Status *Promulgated*RFP Stage *Awarded*Air Agency *Natural Resource Conservation Commission*I/M Agency *Natural Resource Conservation Commission*

OVERVIEW

The State has awarded a contract for a decentralized, test-only network that will be overseen by a managing contractor

TEXAS- Basic Areas

Areas	Type	CO Class	Ozone	Status	Start Date
Beaumont	Basic	Attainment	Serious	Not Operating	na
Dallas-Fort Worth	Basic	Attainment	Moderate	Operating	1/86
Port Arthur	Basic	Attainment	Serious	Not Operating	na

CURRENT PROGRAM

Sunset Date	None	
Start Date	January 1986	
Network Type	Test-and-Repair	
Test Fee	\$8.50 - \$17.25	
Test Frequency	Annual	
Enforcement Type	Windshield Sticker	
Weight Classes	8,500 lbs.	
Walver Type	Cost: \$200/\$250	
Emission Tests	Idle Test	1968+
Visual Checks	Catalyst	1980+
	Inlet	1980+
	Lead Test	1980+

FUTURE PROGRAM

Contract Expires	December 31, 2001	
Start Date	July 1994	
Test-Only	-	
Cost	-\$15 in BPA and \$21 in Dallas	
Frequency	Biennial	
Registration	Denial	
Weight Classes	10,000 lbs.	
Cost	\$75/\$200	
Emission Tests	Loaded/Idle	1968+ Dallas
	IM240	1984+ Dallas
	Loaded/Idle	1968+ BPA
Visual Checks	Pressure	1971+
	Purge	1984+ Dallas
	Catalyst	1968+
	Inlet	1968+

STATUS

Required Program	Basic
Legislation	Signed
1994 Session	No regular session
SIP	Submitted/Complete
Rnie Status	Promulgated
RFP Stage	Awarded
Air Agency	Natural Resources Conservation Commission
I/M Agency	Natural Resources Conservation Commission

OVERVIEW

IM240 testing will be implemented in Dallas to help the area achieve 15% reasonable further progress. The new program in Beaumont-Port Arthur will be test-only.

UTAH

Areas	Type	CO Class	Ozone	Status	Start Date
Ogden	Basic	Moderate <12.7	Attainment	Operating	1/92
Provo-Orem	Basic	Moderate >12.7	Attainment	Operating	7/86
Salt Lake City	Basic	Not Classified	Not Classified	Operating	4/84

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	None	None
Start Date	January 1992	January 1994
Network Type	Test-and-Repair	Test-and-Repair
Test Fee	\$14	\$14
Test Frequency	Annual	Annual
Enforcement Type	Registration Denial	Registration Denial
Weight Classes	All vehicles	26,000 lbs.
Waiver Type	Pre-81: \$100, 1981+: \$200	Pre-81: \$100, 1981+: \$200
Emission Tests	Two Speed 1968+	Two Speed 1968+
Visual Checks	Catalyst 1977+	Catalyst 1977+
	Air Pump 1977+	Air Pump 1977+
	Inlet 1977+	Inlet 1977+

STATUS

OVERVIEW

Required Program *Basic*
 Legislation *None needed*
 1994 Session *January 17 - March 2*
 SIP *Finding Made 1/19/94*
 Rule Status *Changes Promulgated in 1992*
 RFP Stage *Not applicable*
 Air Agency *Utah Division of Air Quality*
 I/M Agency *Environmental Health Department*

I/M programs are operated in Davis, Weber, Utah, and Salt Lake Counties. State law requires reciprocal testing among the counties. Legislative authority is not needed for required program upgrades.

VERMONT

Areas	Type	CO Class	Ozone	Status	Start Date
Burlington	Enhanced	Attainment	Attainment	Not Operating	

CURRENT PROGRAM

Sunset Date *None*
 Start Date
 Network Type
 Test Fee
 Test Frequency
 Enforcement Type
 Weight Classes
 Waiver Type
 Emission Tests
 Visual Checks

FUTURE PROGRAM

April 1994
 January 1995
 Test-Only
 Unknown
 Biennial
 Registration Suspension
 8,500 lbs.
 Cost: \$450
 1M240 1980+
 Purge 1980+
 Pressure 1980+

STATUS

Required Program *Enhanced*
 Legislation *Signed*
 1994 Session *January 4-Early May*
 SIP *Finding Made 1/15/93*
 Rule Status *Promulgated*
 RFP Stage *Not Drafted*
 Air Agency *Department of Environmental Conservation*
 1/M Agency *Department of Environmental Conservation*

OVERVIEW

Legislative authority was enacted last year for emergency 1/M rules which were subsequently developed but for which authority has already expired. These rules would be approvable if permanent authority were obtained. Permanent legislative authority hasn't passed. A SIP submittal before July 15 is unlikely.

VIRGINIA

Areas	Type	CO Class	Ozone	Status	Start Date
Washington, DC-MD-VA	Enhanced	Moderate	Serious	Operating	12/81
Petersburg-Colonial Heights	Basic	Attainment	Moderate	Not Operating	na
Richmond	Basic	Attainment	Moderate	Not Operating	na

CURRENT PROGRAM

FUTURE PROGRAM

Sunset Date	None	Contract expires	December 31, 2001
Start Date	December 1981	January	1995
Network Type	Test-and-Repair	Test-Only	
Test Fee	\$13.50	Unknown	
Test Frequency	Biennial Testing	Biennial	
Enforcement Type	Registration Denial	Registration Denial	
Weight Classes	8,500 lbs.	26,000 lbs.	
Waiver Type	Pre-81: \$72-\$175, 1981+: \$200	Cost: \$450	
Emission Tests	Idle Test Last 21	IM240 1968+ LDV LDT	
		Idle Test 1968+ HDV	
Visual Checks	Catalyst 1973+	Purge 1981+	
	Inlet 1973+	Pressure 1971+	
	Air Pump 1973+		
	PCV Valve 1973+		
	Evap Canister 1973+		

STATUS

Required Program	Enhanced
Legislation	Signed
1994 Session	January 12-March 12
	SIP Finding Made 1/21/94
Rule Status	Proposed
RFP Stage	Issued September 29, 1993
Air Agency	Departments of Air Pollution Control
I/M Agency	Department of Air Pollution Control

OVERVIEW

On February 27, 1993, the legislature passed authority for a single-contractor test-only program in northern Virginia. The bill exempted cars up to five years old sold by used car dealers. Enabling authority for a basic program in Richmond was passed on May 1. The RFP was issued on September 29, bids were received in December. The State is seeking redesignation of Richmond to attainment. The legislature passed a bill to require a test-and-repair program in northern Virginia, but also authorizing the governor to require a test-only program if he deems it necessary.

WASHINGTON

Areas	Type	CO Class	Ozone	Status	Start Date
Seattle	Enhanced	Moderate >12.7	Marginal	Operating	1/82
Spokane	Enhanced	Moderate >12.7	Attainment	Operating	7/85
Tacoma	Enhanced	Moderate >12.7	Marginal	Operating	6/93
Portland-Vancouver, OR-WA	Basic	Moderate	Marginal	Operating	6/93

CURRENT PROGRAM

Sunset Date	Contract expires January 1, 2000	
Start Date	January 1982	
Network Type	Test-Only	
Test Fee	\$12	
Test Frequency	Biennial Testing	
Enforcement Type	Registration Denial	
Weight Classes	All vehicles	
Waiver Type	Cost: \$100/\$150	
Emission Tests	Idle Test	1968+
	Loaded/Idle	1981+
Visual Checks	Catalyst	1981+
	Inlet	1981+

FUTURE PROGRAM

Contract expires	January 1, 2000	
Start Date	Unknown	
Network Type	Test-Only	
Test Fee	Unknown	
Test Frequency	Unknown	
Enforcement Type	Registration Denial	
Weight Classes	26,000 lbs.	
Waiver Type	Cost: \$450	
Emission Tests	Idle Test	1968+
	Loaded/Idle	Undecided
	IM240	Undecided
Visual Checks	Undecided	Undecided

STATUS

Required Program	Basic/Enhanced
Legislation	Signed
1994 Session	January 10-March 10
	SIP Finding Needed
Rule Status	Not Drafted
RFP Stage	Awarded
Air Agency	Department of Ecology
I/M Agency	Department of Ecology

OVERVIEW

The State is looking for a way to minimize coverage of IM240 testing in order to keep test costs to a minimum. The program upgraded to loaded/idle testing with limited IM240 testing for data collection in the summer of 1993. An upgrade of equipment would be needed for IM240 testing in enough lanes to cover enough cars to meet the performance standard. The Department of Ecology has legal authority for IM240 if test cost stays below \$18.

WEST VIRGINIA

Areas	Type	CO Class	Ozone	Status	Start Date
Charleston	Basic	Attainment	Moderate	Not Operating	na
Huntington-Ashland, WV-KY-OH	Basic	Attainment	Moderate	Not Operating	na
Parkersburg-Manetta, WV-OH	Basic	Attainment	Moderate	Not Operating	na

CURRENT PROGRAM

Sunset Date *na*
 Start Date *na*
 Network Type
 Test Fee
 Test Frequency
 Enforcement Type
 Weight Classes
 Waiver Type
 Emission Tests
 Visual Checks

FUTURE PROGRAM

Unknown
Unknown
Unknown
Unknown
Unknown
Unknown
Unknown
Unknown
Unknown

STATUS

Required Program *Basic*
 Legislation *Not Drafted*
 1994 Session *January 12 - March 12*
 SIE *Finding Made 1/15/93*
 Rule Status *Not Drafted*
 RFP Stage *Not Drafted*
 Air Agency *Air Pollution Control Commission*
 I/M Agency *Air Pollution Control Commission*

OVERVIEW

The Air Pollution Control Commission believes it has legislative authority to develop and implement an I/M program but it is *not* drafting regulations. All of the West Virginia areas have submitted redesignation requests and will thereby avoid I/M.

WISCONSIN

Areas	Type	CO Class	Ozone	Status	Start Date
Kenosha	Basic	Attainment	Severe	Operating	4/84
Milwaukee	Enhanced	Attainment	Severe	Operating	4/84
Racine	Basic	Attainment	Severe	Operating	4/84
Sheboygan	Basic	Attainment	Severus	Operating	7/93

CURRENT PROGRAM

Sunset Date	April 1995
Start Date	April 1984
Network Type	Test-Only
Test Fee	None
Test Frequency	Annual
Enforcement Type	Registration Denial
Weight Classes	8,000 lbs.
Waiver Type	Pre-81: \$75, 1981+: \$200
Emission Tests	Idle Test 1968+
Visual Checks	Catalyst 1975+ Inlet 1975+ Gas Cap 1975+

FUTURE PROGRAM

Unknown
July 1995
Test-Only
Unknown
Biennial
Registration Denial
8,000 lbs.
Cost: \$450
IM240 1968+

STATUS

Required Program	Basic/Enhanced
Legislation	None Needed
1994 Session	January 25-Probably recess May 19
SIP	Submitted/Complete
Rule Status	Drafted
RFP Stage	Issued
Air Agency	Department of Natural Resources
I/M Agency	Department of Transportation

OVERVIEW

Effective January 1, 1993 the program switched from annual to biennial testing and expanded model year coverage to 1968 and newer vehicles; Sheboygan was added to the program on July 1, 1993. The minimum waiver expenditure will increase to \$450 on July 1, 1994. An RFP for an enhanced I/M program has been issued, and a demonstration IM240 test lane has been installed in Milwaukee.

ONE HUNDRED THIRD CONGRESS

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U.S. House of Representatives
 Committee on Energy and Commerce
 Room 2125, Rayburn House Office Building
 Washington, DC 20515-6115

October 6, 1994

The Honorable Carol M. Browner
 Administrator
 Environmental Protection Agency
 401 M Street, S.W.
 Washington, D.C. 20460

Dear Administrator Browner:

Enclosed, pursuant to Rules X and XI of the Rules of the House of Representatives, is a copy of a letter from Governor John Engler to the Attorney General of Michigan requesting that the Attorney General pursue legal remedies regarding three counties in western Michigan that are in nonattainment under the Clean Air Act (CAA). Also enclosed are two letters from Muskegon County regarding this matter and a related letter that was sent to several members of the Michigan legislature.

We request your reply to the following:

1. We understand that in 1991 and 1992 Michigan requested and properly received from the Environmental Protection Agency (EPA) a downward classification from "severe" to "serious" and then to "moderate" for the Muskegon ozone nonattainment area. As noted in the enclosed correspondence, Michigan requested a further classification of Muskegon, Kent, and Ottawa counties which was denied by the EPA. The Muskegon letter asks the Michigan Department of Natural Resources to seek reconsideration of that denial. We understand that the DNR has not sought reconsideration and instead supports litigation and a legislative remedy. Is there any basis under the statute for reclassification? Please comment on the legislative remedies. What, if any, alternatives exist?
2. Please explain when and how Muskegon was first declared in nonattainment. What was the basis for the declaration? Was transport considered?

The Honorable Carol M. Browner
Page 2

3. As we understand the matter, Michigan is properly concerned that the ozone problem in Muskegon and Grand Rapids is overwhelmingly caused by transport from Chicago and northern Indiana. Does the EPA disagree? When and how did the EPA and Michigan first recognize the transport problem? When it was identified, what actions did the EPA take to address the issue and to inform the Congress about the matter? If Michigan is right, what is the scientific, environmental, and legal basis for the EPA continuing to classify these areas in nonattainment? The Clean Air Act provides that the EPA determine the design value based on a process issued prior to October 1990. What is the date of that process and was the transport issue considered at that time? Please explain.
4. The Muskegon letter contends that, based on the 1990 census, it "was not within the Kent MSA" and that if considered separately, "there will be no basis for asserting that transport from Muskegon county significantly impacts other areas." Do you agree with these contentions? If not, please explain why not.
5. We are aware that the EPA has helped fund the \$15 million Lake Michigan Ozone Modeling study. Please explain the purpose of the study and explain when the study will be completed and the results made public. What is the legal importance of the study on these issues of nonattainment, classification, and transport?
6. The EPA advises that, based on the preliminary results of the study (based on actual violation days), when the wind blows from Chicago to Michigan, even the elimination of all emissions from western Michigan still does not bring the areas into attainment. At the same time, the EPA reports that when the wind blows from western Michigan to northern Indiana, a 30% reduction in western Michigan emissions may be needed for downwind areas to reach attainment. It is our understanding that on most days of the year, the wind blows toward Michigan. How many days in each of the last four years has it not blown toward Michigan and how many days has it blown toward northern Indiana? Please explain the wind patterns, based on actual violation days in both areas. Please explain how the Act requires Michigan, based on this wind phenomenon, to undertake costly controls to address an emission problem beyond the state's boundaries. What is the nature, source, and extent of emissions of western Michigan? What portion of emissions problems (in terms of actual violation days) in northern Indiana are

The Honorable Carol M. Browner
Page 3

attributed to western Michigan? Is there evidence to suggest that Muskegon is a more polluted area than Chicago or northern Indiana?

Governor Engler states:

Ottawa, Kent, and Muskegon Counties are designated as a "moderate" nonattainment area for ozone. Since the enactment of the state laws, scientific data have become available that prove the impossibility of complying with the federal ozone standard within the area. In fact, the data demonstrate that "but for" pollution originating outside of Michigan, the three counties would be able to demonstrate attainment with the federal ozone standard.

We request your comments on this contention.

7. We are pleased to see that, as Assistant Administrator Mary Nichols promised at our Subcommittee on Oversight and Investigations' hearing of June 22, 1994, the EPA has issued a September 1, 1994 memorandum entitled "Ozone Attainment Dates for Areas Affected by Overwhelming Transport." As the memorandum states, a reasonable reading of the law is one that avoids "absurd or odd results." The document, however, requires that affected states meet a number of conditions, while stating that the "memorandum describes current policy and does not constitute final action. Final action will be taken in the context of notice-and-comment rulemaking on the relevant SIP submittals."

As you know, our Committee has expressed concern about the EPA's extensive use of guidance documents that are not rulemaking and enforceable or subject to notice and comment. In this case, we are concerned that even though Michigan and other states meet all the conditions, relief could be denied because the EPA might change its interpretation as part of the rulemaking on various State Implementation Plans (SIPs) or the state does not have sufficient time to meet the conditions. The EPA has not afforded much time to meet the conditions in the document that on its face is not final and may be changed. We request an explanation as to why the EPA choose this method to announce this interpretation and policy. Can Michigan rely on the September 1 document? Please explain what is contemplated by the EPA in deferring to individual SIP

The Honorable Carol M. Browner



Page 4

rules a final decision in this matter. Could different results occur, depending on the SIP? Is the state able to meet the conditions in a timely manner?

8. Please identify other states where this transport issue is significant and explain the nature of the problem in those states.
9. As a moderate area, we understand that Muskegon must implement a "basic" vehicle inspection and maintenance (I/M) program and a 15 percent reduction in volatile organic compounds (VOCs) by 1996. Michigan, however, has installed an enhanced I/M program to address the VOC requirement. What are the differences in costs to the state and drivers, and what are the benefits? If the enhanced I/M program was not adopted, would stationary sources be required to do more? Please explain.

With every good wish.

Sincerely,

JOHN D. DINGELL
CHAIRMAN

FRED UPTON
MEMBER

Enclosure

cc: The Honorable Carlos J. Moorhead, Ranking Republican Member
Committee on Energy and Commerce

The Honorable John Engler, Governor
State of Michigan

The Honorable Frank J. Kelley, Attorney General
State of Michigan

Mr. Roland Harmes, Director
Michigan Department of Natural Resources

STATE OF MICHIGAN
OFFICE OF THE GOVERNOR
LANSING

JOHN ENGLER
GOVERNOR

August 8, 1994

The Honorable Frank J. Kelley
Attorney General of the State of Michigan
Law Building, Seventh Floor
525 West Ottawa
P.O. Box 30212
Lansing, Michigan 48909

Dear Attorney General Kelley:

On November 13, 1994, I signed into law seven bills which implement the federal Clean Air Act Amendments of 1990. The new laws are the result of the legislature's and my best efforts to fully and completely comply with the federal mandates.

Ottawa, Kent, and Muskegon Counties are designated as a "moderate" nonattainment area for ozone. Since the enactment of the state laws, scientific data have become available that prove the impossibility of complying with the federal ozone standard within the area. In fact, the data demonstrate that "but for" pollution originating outside of Michigan, the three counties would be able to demonstrate attainment with the federal ozone standard.

Notwithstanding the impossibility of compliance, the federal act requires businesses and citizens within the three counties to implement costly requirements to reduce the emission of ozone-forming volatile organic compounds. The cost of compliance with the act is high. The sanctions for not complying with the act are draconian. Even with full implementation of the requirements of the act, the area will still be in violation of federal ozone standards.

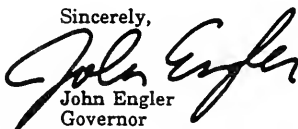
Based on the above, I am requesting that you pursue any and all legal recourse that is available to obtain relief for the citizens and businesses of Muskegon, Ottawa, and Kent Counties from having to implement a costly and (useless) plan to control pollution that originates outside of Michigan. Other states surrounding Lake Michigan are experiencing similar frustrations and may be interested in joining with Michigan in pursuing legal recourse.

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The Honorable Frank J. Kelley
Page 2
August 8, 1994

I understand that your staff and mine have already engaged in preliminary discussions on this issue. I look forward to working with you to obtain a fair and reasonable result for the businesses and citizens of west Michigan. If you or your staff would like to discuss this further, please contact Chad McIntosh, my environmental policy advisor, or me.

Sincerely,

A handwritten signature in dark ink, appearing to read "John Engler". The signature is fluid and cursive, with the first name "John" being larger and more prominent than the last name "Engler".

John Engler
Governor

JE/wcm/kh

cc: Congressional Delegation
Senator Arthurhulz
Senator Posthumus
Senator Van Regenmorter
Representative Agee
Representative Baade
Representative Bandstra
Representative Dalman
Representative De Lange
Representative Horton
Representative Mathieu
Representative Sikkema
Representative Stille
Representative Voorhees
Lucille Taylor

MUSKEGON COUNTY

M I C H I G A N

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990 TERRACE STREET, MUSKEGON, MICHIGAN 49442 • 616-724-6211

FAX • 616-724-6673

ADMINISTRATOR/CONTROLLER

July 19, 1994

Governor John Engler
 State Capitol
 Lansing, Michigan 48909

RE: MUSKEGON COUNTY OZONE

Dear Governor Engler:

I am writing on behalf of the Muskegon County Board of Commission, both to thank you for your efforts to assist Muskegon County in obtaining relief under the Clean Air Act Amendments of 1990, and to solicit your further efforts in that area.

Mr. Governor, we were extremely gratified to read that you had instructed MDNR Director Harmes to request the USEPA for an ozone redetermination of Muskegon/Kent/Ottawa Counties, threatening litigation if necessary. Until recently, we anxiously awaited the EPA's response, confident that federal officials would be convinced as you now are, that it would be a manifest injustice for area residents to be subjected to costly and unnecessary emission testing, when it is apparent that "but for" pollution originating outside of Michigan, our three counties would be able to demonstrate attainment with the federal ozone standard.

Unfortunately, our hopes in such regard have diminished, first upon learning that the State of Michigan has a contract for the construction of seven emission centers and, second, upon receipt of Carol Browner's letter of June 20, 1994, denying your request for redesignation.

From all indications, the USEPA, while paying lip service to our plight, does not appear disposed toward providing measurable relief to our victimized community. Nor does it appear reasonable to expect that Congress will amend the Clean Air Act as sought by Congressmen Ehlers and Hoekstra. Consequently, it appears that we must look to the State of Michigan, or to ourselves, for help in obtaining justice against an unmerciful, unwise law, which looks to victims of pollution for remediation.

recycled paper

JUL 27 1994

JUL 28 11 13 AM '94

Governor Engler
July 19, 1994
Page 2

Mr. Governor, you were reported to have indicated that the State would sue, if necessary, to obtain relief in the event the redesignation request failed. The November 12, 1993 *Gongger News Service* stated:

"And, Mr. Engler said that the State would sue, if necessary, to prevent Western Michigan from being penalized because of airborne pollution brought across Lake Michigan from Chicago, Wisconsin and western Indiana.

Now that the USEPA has denied the request, and now that the Lake Michigan Ozone Study categorically confirms that airborne pollution is the cause of our non-attainment, we believe that the time is ripe for the State of Michigan to file suit to prevent Western Michigan from being penalized because of airborne pollution.

We also believe that it would be extremely imprudent, if not ironic, for the State of Michigan, while pursuing legal relief for its West Michigan citizens, to invest millions of dollars in the construction of emission testing centers which would have as their sole purpose the penalizing of automobile owners in Muskegon/Ottawa/Kent Counties. To our way of thinking, it makes no sense to proceed with such an expenditure while at the same time filing a legal action which seeks to avoid the need for emission testing.

The Muskegon County Board of Commission adopted the attached Resolution in March, 1993, contemporaneous with its submission of a report to the State prepared by the West Michigan Shoreline Regional Development Commission, as provided for under the Clean Air Act Amendment. (Attachments).

In that Report, recommendations were made to defer the State SIP, pending completion of the LMOS Study. That recommendation was not accepted by the State.

In the Board's Resolution, our Staff was authorized to pursue legal or administrative challenges. To date, no such action has been filed by our Staff, based upon their recommendation that the State of Michigan would be better equipped to pursue the needed relief.

The Muskegon County Board of Commission still feels that the State of Michigan is better equipped to pursue relief on our

Governor Engler
 July 19, 1994
 Page 3

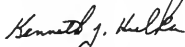
behalf. Should the State decline, however, to provide such assistance, then we must look to our own resources.

From our perspective, it is wrong for a community such as ours to be stigmatized as non-attainment when this status is attributable to pollution caused by others who need not reach attainment for another decade; it is wrong for our economic expansion to be limited beyond that in other communities where locally generated pollution is greater; it is wrong for our citizens to be subjected to significant auto testing and repair costs when these costs will not result in appreciable improvement of the air; and yes, it is wrong for our health to be potentially harmed by pollution transported from interstate sources.

In closing, Mr. Governor, we would request that the State file suit to prevent West Michigan from being penalized because of airborne pollution, and that the construction of testing centers be suspended pending the outcome of such legal action.

Thank you for your attention.

Sincerely yours,



Kenneth J. Hulka, Chairman
 Muskegon County Board of Commission

rab

c: Roland Harmes, Director, MDNR
 Frank Kelley, Attorney General
 Congressman Vern Ehlers
 Congressman Peter Hoekstra
 Senator Carl Levin
 Senator Donald W. Riegle, Jr.
 Congressman Dingell
 Carol Browner, EPA
 Senator Philip Arthurhultz
 Representative Paul Baade
 Representative James Agee
 Members, Muskegon County Board of Commission
 Chairperson, Kent County Board of Commission
 Chairperson, Ottawa County Board of Commission
 Frank Bednarek, Muskegon County Administrator/Controller
 Stephen C. Corwin, Muskegon County Corporate Counsel

MUSKEGON COUNTY BOARD OF COMMISSION
RESOLUTION
IN SUPPORT OF ATTAINMENT
OF CLEAN AIR ACT STANDARDS
FOR OZONE

WHEREAS, the Clean Air Act (CAA) amendments of 1990 established ambient air standards for ozone and directed the EPA Administrator to review and approve or disapprove State implementation plans for attaining such standard; and,

WHEREAS, the Muskegon County Board of Commission (Board) strongly supports the establishment and attainment of such standards; and

WHEREAS, the Lake Michigan Ozone Study (LMOS), performed on behalf of the State of Michigan, Indiana, Illinois and possibly Wisconsin has gathered valuable data with regard to the transport of ozone across the four state region bounded by Lake Michigan, which study, soon to be published in final form, is expected to demonstrate that large amounts of ozone causing precursors are generated in Illinois, Indiana, and Wisconsin and transported into West Michigan air across Lake Michigan; and,

WHEREAS, this Board is informed and believes, based on provisional reports issued by the LMOS that "but for" this transport of ozone causing precursors, Muskegon would unquestionably be an attainment area for purposes of ozone; and,

WHEREAS, this Board is furthermore informed and believes that attainment of the air quality standard for ozone in Muskegon County cannot be achieved by the imposition of CAA mandated controls upon sources in Muskegon County but that such attainment can only be

achieved through a radical reduction or abatement of those ozone causing precursors generated in Illinois, Indiana, and Wisconsin; and,

WHEREAS, the Clean Air Act amendments require states, such as Michigan, to submit ozone implementation plans containing demonstration that attainment can be achieved under the plan and that the plan will not result in significant interference with the ability of an impacted area to achieve attainment, and

WHEREAS, this Board is informed and believes that the State of Michigan intends to submit a plan providing for imposition of controls upon Muskegon County, but not upon interstate ozone sources, thus, in the opinion of Board, resulting in a plan that cannot demonstrate attainment, and is therefore defective under the CAA; and

WHEREAS, this Board is furthermore informed and believes that the States of Illinois, Indiana and Wisconsin are contemplating the submission of plans which will not address "ozone transport" which is significantly impacting upon Muskegon County's attainment of standard; and thus, in the opinion of this Board, are defective under the Act; and

WHEREAS, the CAA provides for local elected official input in regard to State implementation plans and administrative action by political subdivisions such as Muskegon, which have been impacted by interstate transport sources; and,

WHEREAS, inasmuch as substantial expenditure of monies, and potential curtailment of industrial development, as well as

sanctions will result, or potentially could result, from imposition of controls locally, which controls and limits will prove futile in achieving attainment for ozone, given the fact that the problem is caused by transport from interstate sources, and which controls and limits are furthermore deemed fundamentally unfair by this Board, given that non-attainment has not been caused by area residents, this Board deems it to be in the public interest to pursue such actions as may be necessary to effect attainment by interstate source polluters and relief for the citizens of Muskegon County as may be just and appropriate;

NOW, THEREFORE, THIS BOARD DOES HEREBY RESOLVE AS FOLLOWS:

1. THAT the implementation proposal prepared by the West Michigan Regional Shoreline Development Commission, calling for deferral of the State implementation plan until such time as the LMOS study is completed, or in the alternative, abatement or curtailment of interstate transport sources as may be necessary and appropriate to effect local attainment, be and the same is hereby approved for submission to the State.

2. THAT staff be authorized to undertake any and all actions which might be deemed by Staff to be necessary and advisable in order to achieve State of Michigan and/or U.S. EPA Administrator approval of an appropriate plan for achieving attainment of the Clean Air Act standards for ozone, including but not limited to, (a) legal or administrative challenge to implementation plans proposed by Michigan, Illinois, Indiana or Wisconsin, by the EPA Administrator insofar as such plans do not adequately address

attainment of the standard through reduction or curtailment of ozone causing pollutants into Muskegon; (b) legal or administrative challenge under the Clean Air Act against interstate sources of ozone causing pollutants, and (c) legal or administrative challenge to any Michigan or United States plan which would subject Muskegon County residents to controls or limits not imposed upon residents of other similarly situated communities.

3. THAT Staff be directed to communicate with other non-attainment areas, or potential non-attainment areas to solicit support or participation from such of these areas as are non-attainment as a consequence of interstate transport of pollutants.

4. THAT Staff notify appropriate State and federal representatives of the area and seek their assistance in obtaining legislative, administrative or such other relief as may be deemed appropriate and advisable.

DATED:

Kenneth J. Hulka, Chairman

Ruth Stevens, Clerk

March Meeting
 Recessed Meeting

March 16, 1993
 3:30 P.M.

Honorable Kenneth Hulka, Presiding

The recessed March 9, 1993 meeting of the Muskegon County Board of Commissioners was called to order at 3:30 by Chairman Kenneth Hulka.

Roll Call

Present: Babcock, Fairchild, Frye, Funkhouser, Gill, McMurray, Start, Hulka

Absent: Cutler

A presentation on the ozone level in Muskegon County was made by the West Michigan Shoreline Regional Development Commission.

93-105 IMMEDIATE INJUNCTIVE RELIEF SOUGHT UNTIL THE DNR AND THE EPA PROVE THAT MUSKEGON COUNTY AMBIENT AIR IS POSSIBLE, UNTIL INTERSTATE SOURCES ARE CLEANSED, AND ALL MICHIGAN COUNTIES ARE PROPERLY AND ACCURATELY MONITORED TO AVOID SECOND CLASS STATUS FOR MUSKEGON COUNTY

Moved by Funkhouser support by Gill to seek immediate injunctive relief until the DNR and the EPA prove that Muskegon County ambient air is possible, until interstate sources are cleansed, and all Michigan counties are properly and accurately monitored to avoid second class status for Muskegon County.

Roll Call

Ayes: Funkhouser

Nays: Babcock, Fairchild, Frye, Funkhouser, McMurray, Start, Huka

Motion Defeated

93-106 RESOLUTION REGARDING STATE IMPROVEMENT PLAN (SIP) FOR OZONE ATTAINMENT

Moved by Babcock support by Fairchild to concur with Muskegon County's Response to VOC Reductions Required Under the Clean Air Act Amendments of 1992, and to adopt a resolution in support of Clean Air Act Standards for Ozone.

Roll Call

Ayes: Babcock, Fairchild, Frye, Funkhouser, McMurray, Start, Hulka

Nays: Gill

Motion Carried

AUDIENCE PARTICIPATION

Marian Schroeder, 3825 Harbor Point Rd., feels Muskegon County should try to comply with Clean Air Act.

Meeting adjourned at 5:15 p.m.



Ruth S. Stevens, Muskegon County Clerk

MUSKEGON COUNTY'S RESPONSE
TO VCC REDUCTIONS REQUIRED UNDER THE
CLEAN AIR ACT AMENDMENTS OF 1990

The policy identified in this document represents the joint position of the West Michigan Shoreline Regional Development Commission, the Muskegon County SLARG, and the Muskegon County Board of Commissioners, as stipulated by the Memorandum of Understanding between the WMSRDC, the Michigan Department of Transportation and the Michigan Department of Natural Resources signed May 22, 1992.

Prepared by:

The West Michigan Shoreline Regional Development Commission
P.O. Box 387; Muskegon, MI 49443-0387
March 11, 1993

Background

Congress first recognized clean air as a national health priority over 20 years ago, when the 1970 Clean Air Act was passed. The Act established requirements for reducing emissions from vehicles, factories and other sources. As a result of these actions, new cars emit about 60 to 80 percent less pollution during their lifetimes than those that were built in 1970. In 1977 the act was amended to require further reductions in emissions from both stationary (industries, etc.) and mobile sources (primarily automobiles).

Although considerable progress has been made, the attainment of clean and healthy air continues to be a problem throughout most of the United States. Unhealthy air pollution levels still plague more than 100 U.S. cities. This can largely be attributed to urban sprawl and development which have led to a doubling of vehicle travel since 1970 and created new pollution. In addition, previously unrecognized threats such as acid rain and air toxins are now regarded with concern by scientists and the public. In 1990, Congress enacted and the President signed amendments to the Clean Air Act that set out to address what was missed by the original Act and its subsequent amendments. The 1990 Clean Air Act Amendments (CAAA) significantly tightens the sanctions that could be imposed for non-compliance and allowed citizens' suits to be filed against private industry and agencies that do not comply. The 1990 CAAA directed the Environment Protection Agency (EPA) to develop regulations through the rule making process.

Muskegon County

A major provision of the law applied to metropolitan areas that do not meet the EPA's standard for ambient air quality. These "non-attainment areas," as they are referred to, received a ranking according to severity (marginal to extreme). Muskegon County is currently classified as moderate.

The designated non-attainment areas were classified according to the severity of their pollution problem based on a "design value." The design value for ozone is the 4th highest violation of the standard during the preceding three year period. Muskegon was initially classified as Severe. This classification was bumped down to serious using the 5% adjustment allowed in Section 181 of the CAAA. A classification adjustment was made again in 1992 when the State submitted a boundary study for the Muskegon nonattainment area. Muskegon was reclassified as Moderate when the design values for the past eleven years were averaged and found to be .152 ppm which falls within the Moderate range of .138 to .160 ppm.

As reflected by the reclassifications, Muskegon's extremely high design value was questioned almost immediately. The initial classification put Muskegon in the company of Los Angeles, California. One of the properties of ozone pollution is that it can be transported by the wind for many miles. Officials suspected the larger metropolitan and industrial areas of Chicago and Gary as culprits. As will be discussed later, this theory is widely recognized and will be justified.

Requirements under the Act

On May 22, 1992, the West Michigan Shoreline Regional Development Commission (WMSRDC) signed a Memorandum of Understanding (MOU) with the Michigan Department of Transportation (MDOT) and the Michigan Department of Natural Resources (MDNR) regarding responsibilities pursuant to sections 121 and 174 of the Clean Air Act for state implementation plan revisions for the Muskegon Area. This MOU makes WMSRDC the agency responsible for air quality planning and moving the area towards compliance with air quality guidelines. The CAAA requires a significant amount of local input in the policy development process. The agency must work with a State and Local Agency Review Group (SLARG) and represent the SLARG's interests in formulating a local action plan.

The air quality issue has been weighing heavy on the minds of local officials for some time now. Over the past three years, several dialogues have taken place on several levels regarding how Muskegon shall deal with its situation. The EPA has granted some relief in lowering our classification from severe to moderate. Under the Intermodal Surface Transportation Efficiency Act (ISTEA) special funds were set aside to aid non-attainment areas in reducing emissions. The area has appreciated this respite while it attempts to resolve the unacceptable ozone levels.

The CAAA requires of moderate nonattainment areas:

1. The area (SLARG) develop a set of local control measures to be included in the State Implementation Plan (SIP).
2. A reduction in emissions from volatile organic compounds (VOCs) by 15% net of growth from a 1990 baseline.
3. Obtain reductions to offset any increase in emissions resulting from increases in industrial economic activity.

Though localities were given some freedom in choosing how to achieve the 15% reduction, the following means were mandated:

1. Stage II Vapor Recovery to capture emissions from fueling vehicles.
2. A Basic Inspection/Maintenance (I/M) Program
3. Reasonably Available Control Technology (RACT) for source categories where the EPA has issued Control Technique Guidelines)
4. RACT for major sources

Should the area fail to meet the requirements, the following sanctions may be taken:

1. Highway funding in the affected nonattainment area may be cut except where the purpose of the grant is to improve a demonstrated safety problem.
2. The emissions offset requirement for industry would be doubled from the current ratio of 1:1 to 2:1.
3. All or parts of grants that support air pollution planning and control programs may be withheld.
4. Permits for new or modified major sources in the non-attainment area would be banned.
5. Construction or modification of specific major stationary sources in all areas, including attainment areas, may be banned.

Transport

The tasks outlined by the CAAA are enormous. Exacerbating the problem is the question of where the production of the emissions lies. It is not the first time the subject of the consequences of the interstate transport of pollutants has been visited. The most applicable case was in 1987 when the state of Wisconsin filed suit against the EPA and the States of Illinois and Indiana, seeking an order of abatement of transport of pollution from those offending states, and seeking a moratorium on the construction of major ozone sources. The case was ultimately settled under an agreement providing for interim controls and the financing of a study to assess the transport problem. The State of Michigan, though not a party to the suit, elected to contribute to the Lake Michigan Ozone Study (LMOS). LMOS is scheduled for completion in June, 1993, and will provide information about air flow and ozone formation in the four states that border Lake Michigan.

In the meantime, other preliminary studies have taken place. During the summer of 1990, weather balloons released from the three areas met over the Muskegon area, confirming suspicions.

Further, officials suspect that the "West Michigan" counties of Muskegon, Kent, and Ottawa (as well as the Detroit area) are not the only counties with high readings. In fact, it is believed that high ozone levels exist in all the Michigan counties bordering Lake Michigan, as well as across all of the southern lower portion of the state. The classified counties are where the official readings were taken. Had monitoring stations been placed in other counties, they would likely have been nonattainment areas also.

Local Accountability

Hundreds of consultations have occurred on many differently levels, and have all amounted to the inherent issue: how can Muskegon reduce ozone when the emissions are produced in Chicago? As the public is prepared for the required Inspection/Maintenance program, the taxpayers are asking why they should pay to fix a problem that isn't theirs. As the WMSRDC prepared this paper, the members asked how were they to explain to their constituents the fact that millions of dollars would be spent in the area in an attempt to reduce local emissions, which are extremely low in comparison to the actual pollution levels, a task that might not be achievable under the standards of the law.

Each time this issue was raised, MDOT, the DNR, and the EPA have responded in virtually the same manner: the law says you must. The above agencies have acknowledged on several occasions that the problem is not that of Muskegon's but one of transport across Lake Michigan. Unfortunately, the law made few provisions for circumstances such as Muskegon's. Thus agency officials have repeatedly claimed that the law is law, the area must abide by it and fulfill its requirements no matter how futile, and that is all there is to it.

Implementation

The Muskegon County SLARG set out to develop a policy that would put the area in conformity with CAAA requirements and eventually bring the area into attainment of clean air standards. The area supports the objectives of the Clean Air Act Amendments and the pursuit of a cleaner and healthier environ-

ment. It is the area's belief that the controls outlined will greatly reduce emissions of VOCs at their sources. However, it is the County's contention that the situation locally was not the intent of the CAAA, and that a greater effort needs to be made to accommodate transport issues. With that in mind, Muskegon County respectfully submits the following for consideration in the development of the Statewide Implementation Plan (SIP).

Recommendation 1: Delay for LMOS

First of all, Muskegon County officially requests that development of the SIP is delayed until final results of the LMOS study are made available. The LMOS will provide information intrinsic to the contention that Muskegon, as well as other Michigan counties, is the victim of the interstate transport of pollutants. The transport of such toxins threatens the county and its citizens in their economy and way of life, under the CAAA. Humanistically, it endangers the health and well being of citizens throughout a large portion of the Lower Peninsula. The purpose of the CAAA was to reduce harmful pollutions, not punish the recipient of source winds blowing in from Indiana and Illinois.

Muskegon cannot, even through the reductions requirements mandated, reach attainment by the date fixed, if ever, owing to the fact that most of the ozone measured locally is caused by transport. Ultimately, a local reduction in reading will not materialize until there is a reduction in the source. In addition, it will be near impossible to produce the reduction in locally produced emissions as mandated by the law. There simply is not the Vehicle Miles Traveled (VMT) or the industry to reduce. The proverbial "blood from a turnip," comes to mind.

Recommendation 2: Request for Relief

Secondly, should the LMOS conclude, as it is expected to, that Muskegon is indeed a victim, the County submits what it characterizes as a "common sense" appeal for relief. The county maintains that it is fundamentally unfair and futile to subject it, and its citizens, to measures designed to effect attainment, when it is a foregone conclusion that since Muskegon has not caused the problem, it can do little to solve the problem. This appeal is encompassed in a series of counts based upon the statute, common law and the Constitution.

In devising the SIP, the State is informing the federal government as to its plan for implementing the Clean Air Act requirements. The submission must demonstrate enforcement authority and the probability that the SIP will result in "attainment."

In this case, assuming for the sake of discussion, that upwards of 80% of Muskegon's ozone is caused by transport, it is apparent that a 15% reduction in the 20% locally-generated ozone would result in a net three percent reduction of ozone levels in Muskegon County. Therefore, it would seem clear that Michigan's plan, calling for a 15 percent Muskegon reduction, would fail. It should be noted that some estimates of Muskegon's contribution to local ozone levels have been as low as 5%.

Theoretically, the State could seek to eradicate and outlaw all ozone contributions in Muskegon, thereby allowing the area potentially to achieve attainment. To compel Muskegon to literally revert to the stone age in order to achieve this beneficent result is a scenario too ludicrous to merit discussion.

The Act requires that baseline inventory emissions not increase. Therefore, absent reductions in ozone, no new industry emitting ozone-causing precursors could relocate to this economically depressed area. And, since Muskegon alone cannot effect reduction, a moratorium will essentially be imposed on Muskegon County growth through permit denials by State or federal authorities. It seems unfair to impose economic burdens upon an area which is "nonattainment" by sheer virtue of the fact that it lies downwind from major industrial interstate sources. In effect, local residents in the community as a whole, are being told to solve a problem they did not cause. Faced with these problems, the county seeks relief.

Recommendation 3: Equality in Application

Should no relief be granted, the County demands that official readings be taken in all counties so as to provide designation and classification. Citizens of Muskegon County are being asked to forfeit or fix their cars, pay higher amounts for their gasoline, subject themselves possibly to industry reduction and/or moratorium on growth, simply because, as a matter of fortuity, a monitoring station was positioned within Muskegon County. The Federal Register confirms that of the 83 Michigan counties, all but ten bear the designation "unclassified/non-attainment." The reason they do so, quite obviously, is because no modeling has been done as to whether these communities are or are not in attainment, and more importantly, these communities did not have the bad luck of having a monitoring station in their back yard.

The WMSRDC has been instructed that other counties will not be classified. MDOT and the DNR oppose this because they do not have the resources to manage the numerous counties that could be added. Muskegon County does not have the resources to sacrifice economic growth due to a competitive edge lost in the conformity process.

Should the LMOS prove that Muskegon is a significant contributor to emissions, then the County will look to adopt the requirements under the law and work towards conformity and attainment. It would expect other significant producers, who so far may be unclassified, to be required to do the same.

Recommendation 4: Abatement in the SIP

The County **INSISTS** that the State take aggressive action in the submittal of its SIP and in regard to other administrative requests, to impose moratoriums and other relief, as may be necessary and appropriate, to enable Muskegon County to achieve attainment. In the County's support of environmental issues, as well as the health and well being of its citizens, the State must demand relief from the source winds. It must

force the transporting states to reduce ozone to such an appreciable degree as to result in Muskegon's attainment. The SIP should, at the very least, contain some provision whereunder request or action is taken as against the source states to put them either on an expedited schedule for reductions and/or an elevated level or reductions, whatever might be required in order to effect said result.

Recommendation 5: Attainment Efforts

In working towards attainment, the County is required to be in conformity with the CAAA by reducing locally produced emissions by 15%. The County seriously questions the possibility of this being accomplished. The Act requires certain reductions measured to be taken, such as the I/M program and Stage II Vapor Recovery. It also requires that the area reduce local emissions by 15% to be in conformity. Although there is supposedly freedom locally to choose the path to conformity and ultimately to attainment, in reality the Muskegon area will need to use every possible reduction measure conceived of and then some to come up with 15%. The modeling process seems to show that this is possible, but local officials and industry experts take exception to these conclusions. Currently the SLARG is wrestling with what actions to take, since 0% reduction, 6.5% reduction (that estimated by I/M program), and 14.5% reduction all mean the same thing: nonconformity. And, until emissions are greatly reduced on the other side of Lake Michigan, conformity will not mean the road to Attainment.

The SLARG will develop its implementation efforts simultaneously as it cooperates with the State in working towards Objectives 1 through 4.

Recommendation 6: Interstate Cooperation

Finally, in the interest of a better environment, Muskegon County would like to work with the source states. If need be, we would like to put some of our funds, intended to work towards emissions reductions, to use in Illinois and Indiana. Reductions efforts there would be more productive and move the County towards Attainment, the ultimate goal of the Clean Air Act Amendments.

Conclusion

While Muskegon County acknowledges area ozone measurements exceed acceptable levels, it does not accept the fact that it is the significant contributor to those levels. The County does not feel it is possible to have a significant effect on those levels by reducing emissions locally, nor is it fair to ask the citizens to endure the hardships required under this designation, especially when others in the same situation have been passed by. Muskegon County looks to work with the State of Michigan, the States of Illinois and Indiana, the Environmental Protection Agency, and the Federal Government to resolve applicable issues regarding air quality, designation, classification, and transport in a fair and equitable manner.

MUSKEGON COUNTY

M I C H I G A N

990 TERRACE STREET, MUSKEGON, MICHIGAN 49442 • 616-724-6211

FAX • 616-724-6673

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July 19, 1994

Roland Harmes, Director
 Department of Natural Resources
 530 West Allegan
 P.O. Box 30028
 Lansing, Michigan 48909

RE: MUSKEGON COUNTY OZONE,

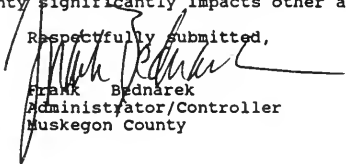
Dear Mr. Harmes:

We have recently received a copy of Carol Browner's June, 1994, denial of your request for reclassification of Muskegon, Kent and Ottawa Counties. As I understand, your request was denied based on failure to satisfy either Section 182(h)(1) and 182(h)(2) of the CAA. Based upon my review of Ms. Browner's letter, I would respectfully request that you ask for reconsideration of your request.

From a review of Ms. Browner's letter, it appears that the EPA is lumping Muskegon/Kent/Ottawa Counties together for purposes of evaluating availability of a rural transport zone redesignation.

As you know, Muskegon was not within the Kent MSA under the 1990 census report, and it is my belief that if Muskegon is considered separately, there will be no basis for asserting that transport from Muskegon County significantly impacts other areas.

Respectfully submitted,


 Frank Bednarek
 Administrator/Controller
 Muskegon County

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 MICHIGAN DEPARTMENT OF
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R. Harmes
July 19, 1994
Page 2

C:

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Congressman Vern Ehlers
Congressman Peter Hoekstra
Senator Carl Levin
Senator Donald W. Riegler, Jr.
Congressman John Dingell
Carol Browner, EPA
Senator Philip Arthurhultz
Representative Paul Baade
Representative James Agee
Members, Muskegon County Board of Commission
Chairperson, Kent County Board of Commission
Chairperson, Ottawa County Board of Commission
Stephen C. Corwin, Muskegon County Corporate Counsel

FILE COPY

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U.S. House of Representatives
 Committee on Energy and Commerce
 Room 2125, Rayburn House Office Building
 Washington, DC 20515-6115

June 28, 1994

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 DENNIS S. FITZGIBBONS DEPUTY STAFF DIRECTOR

The Honorable Dick Posthumus
 Senate Majority Leader

The Honorable Arthur Miller
 Senate Minority Leader

The Honorable Paul Hillegonds
 Co-Speaker of the House

The Honorable Curtis Hertel
 Co-Speaker of the House
 State of Michigan
 State Capitol
 Lansing, Michigan 48913

Dear Representatives Posthumus, Miller, Hillegonds, and Hertel:

I appreciate receiving your jointly signed letter of June 2, 1994 concerning Michigan's request for redesignation under the Clean Air Act (CAA) of three western counties, and your expression of support for an amendment to section 182(h) of the CAA as provided in H.R. 3902.

I received the enclosed Environmental Protection Agency (EPA) letter to the Michigan Department of Natural Resources (DNR) denying Michigan's request for redesignation on the basis that the "request does not satisfy the Agency's completeness requirements." In this regard, the EPA lists four specific requirements and states that the EPA "is not required to go through notice and comment rulemaking to make a finding of completeness." The EPA also states that the "request does not meet a fundamental criterion of an approvable redesignation request":

Specifically, the submittal is not supported by showing that the Muskegon and Grand Rapids nonattainment areas are attaining the NAAQS [National Ambient Air Quality Standards]. To be eligible for redesignation to attainment, an ozone nonattainment area must

Page 2

provide ambient air quality monitoring data showing no violations of the NAAQS for the last 3 years. Without such a demonstration, a redesignation request to attainment can not be approved. Available ambient air quality monitoring data for the Muskegon and Grand Rapids nonattainment areas, however, show violations of the NAAQS for ozone over the past 3 years.

In addition, currently available Urban Airshed Modeling provided by the Lake Michigan Air Directors Consortium predicts ozone concentrations that are greater than the NAAQS in both Muskegon and Grand Rapids nonattainment areas. Further, the modeling results also indicate that Muskegon and Grand Rapids contribute to predict ozone concentrations in other areas that are greater than the NAAQS. Therefore, apart from finding the State's redesignation request incomplete, the USEPA does not believe it would be approvable.

If the DNR believes it has met the completeness criteria and has supportable evidence to counter the EPA's claims, I urge the DNR to provide that information quickly to the EPA and to me. I want to insure that the EPA is right in applying the law.

I also received the enclosed preliminary findings regarding the Lake Michigan Ozone Control Program. After reading these findings and receiving a briefing from the EPA, I asked the EPA, in the enclosed Oversight and Investigations Subcommittee letter on implementation of the CAA, to address the issue of "bump up" for these and other moderate areas that are heavily affected by transported pollutants. I believe an early resolution of this matter by the EPA is important for Michigan and other states. At the hearing, Representative Fred Upton asked the EPA witness upon his behalf and mine about this matter and was assured that the EPA will act this summer.

I do not favor amending the CAA. Once we start down that road, even if the initial approach is narrow, it is likely that our Committee and the Congress could face a broad range of proposals that might undermine the law's purposes or impose more stringent requirements that may not be kindly viewed by regulated industries, their workers, or the states. In fact, several bills to amend the CAA are now pending before the Committee and I am certain that if it became clear that we were even contemplating amendments, the flood gates would open. Many would likely be germane to any effort, like H.R. 3902, to amend Title I of the CAA, and could be germane to other titles of the CAA. I recently had to oppose two attempts to indirectly amend the law through the appropriations process, (see enclosed letters).

Page 3

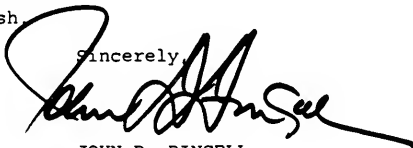
H.R. 3902 is pending before the Subcommittee on Health and the Environment, chaired by Representative Henry A. Waxman. He too has indicated an unwillingness to undertake amending the CAA, especially while the Committee must consider health care reform, safe drinking water legislation, and a number of other matters.

As to the substance of H.R. 3902, it is not clear to me that merely redesignating these counties as a rural transport area will achieve the objective of providing exemptions from inspection and maintenance (I/M) requirements. Section 182(h), which H.R. 3902 would amend, still requires that the area meet the requirements of section 182(a) for marginal areas which appear to include I/M, if previously required. Further, as a policy, I believe our Committee would have difficulty justifying an amendment that had an objective of providing exemptions to I/M. Many believe that such a requirement is an important complement to the emission standards for new vehicles. Unfortunately, the highways continue to have poorly maintained vehicles that contribute to pollution and poor air quality.

I hope this information is helpful.

With every good wish

Sincerely,

A handwritten signature in black ink, appearing to read "John D. Dingell", written over the word "Sincerely,".

JOHN D. DINGELL
CHAIRMAN

cc: The Honorable Fred Upton, Member
Committee on Energy and Commerce



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 5
 77 WEST JACKSON BOULEVARD
 CHICAGO, IL 60604-3590

MAY 11 1994

REPLY TO THE ATTENTION OF

(R-19J)

Roland Harnes, Director
 Michigan Department of Natural Resources
 P.O. Box 30028
 Lansing, Michigan 48909

Dear Mr. Harnes:

This letter is in response to your November 12, 1993, letter requesting to redesignate the Muskegon and Grand Rapids nonattainment areas from moderate nonattainment for ozone to attainment, as provided for in Section 107(d)(3)(D) of the Clean Air Act (CAA).

The United States Environmental Protection Agency (USEPA) has performed a completeness review on your submittal with respect to the requirements of the USEPA completeness review procedures (40 CFR 51 Appendix V) and the requirements of section 110(k) of the CAA. Based on these criteria the USEPA has determined that this redesignation request does not satisfy the Agency's completeness requirements.

In particular, the submittal does not meet the following requirements of 40 CFR 51 Appendix V. It does not include:

- a SIP revision to provide for maintenance of the NAAQS (i.e., a "maintenance plan") (sec 2.2(d));
- evidence that this submittal will protect the National Ambient Air Quality Standards (NAAQS) in the Muskegon and Grand Rapids nonattainment areas (i.e., specifically, the State has not provided documentation that the areas' air quality will be maintained in the years following redesignation) (sec. 2.2(d));
- evidence that the required maintenance plan has been adopted (i.e., rules to be implemented to assure the NAAQS will be maintained in the future) (sec. 2.1(b)); and
- evidence that the maintenance plan was subject to a public hearing and that all of the procedural requirements were followed (USEPA further notes that the State's maintenance plan submittal is not eligible for parallel processing because draft rules were not included in the State's submittal) (sec. 2.1(e),(f),(g),(h)).

For the reasons explained at 58 Fed. Reg. 51272 (October 1, 1993), the USEPA is not required to go through notice and comment rulemaking to

-2-

make a finding of incompleteness. As explained there in more detail, these reasons include congressional intent underlying the provisions of the CAA and the satisfaction of the good cause exception of the Administrative Procedures Act (sec. 553(b)(B)).

In addition to finding that the State's redesignation request as it currently stands is incomplete, a preliminary analysis by the USEPA indicates that the request does not meet a fundamental criterion of an approvable redesignation request. Specifically, the submittal is not supported by a showing that the Muskegon and Grand Rapids nonattainment areas are attaining the NAAQS. To be eligible for redesignation to attainment, an ozone nonattainment area must provide ambient air quality monitoring data showing no violations of the NAAQS for the last 3 years. Without such a demonstration, a redesignation request to attainment can not be approved. Available ambient air quality monitoring data for the Muskegon and Grand Rapids nonattainment areas, however, show violations of the NAAQS for ozone over the past 3 years.

In addition, currently available Urban Airshed Modeling provided by the Lake Michigan Air Directors Consortium predicts ozone concentrations that are greater than the NAAQS in both the Muskegon and Grand Rapids nonattainment areas. Further, the modeling results also indicate that Muskegon and Grand Rapids contribute to predicted ozone concentrations in other areas that are greater than the NAAQS.

Therefore, apart from finding the State's redesignation request incomplete, the USEPA does not believe it would be approvable. If you have any questions or need additional information, please feel free to contact me.

Sincerely yours,

cc/ original signed by
Valdas V. Adamkus
cc/ original signed by
Valdas V. Adamkus
Regional Administrator

LAKE MICHIGAN OZONE CONTROL PROGRAM

IMPACT OF MODERATE NONATTAINMENT AREAS PRELIMINARY FINDINGS

Three counties in western Michigan and three counties in northeast Wisconsin are classified as moderate nonattainment areas for ozone. Given that ozone precursor emissions from these counties are a small fraction (i.e., less than 5 - 10%) of total regional emissions, there has been concern about how much these counties contribute to their own nonattainment problem. In particular, it has been suggested that these counties are the recipient of ozone produced by emissions from the upwind severe nonattainment areas in Illinois, Indiana, and Wisconsin. To determine the impact of the moderate nonattainment areas, a series of modeling analyses were performed. The purpose of this document is to summarize these analyses and to provide some observations on the effect of reducing emissions in these areas.

OVERVIEW OF MODELING

The modeling analyses focused on the ozone precursor emissions from two areas:

Michigan: Kent, Ottawa, and Muskegon Counties

Wisconsin: Sheboygan, Manitowoc, and Kewaunee Counties

Within these areas, the following emission reductions were examined:

- (1) 100% reduction in NO_x and anthropogenic VOC emissions: to quantify the total contribution of emissions from the moderate nonattainment areas in western Michigan and northeast Wisconsin
- (2) 30% reduction in NO_x or anthropogenic VOC emissions: to approximate the effect of the controls mandated by the Clean Air Act Amendments of 1990 (CAAA)

Three ozone episodes from 1991 were modeled: late June (southerly winds), and mid-July (southwesterly winds), and mid-June (northeasterly winds). The late June and mid-July episodes are representatives of most historical ozone episodes in the region. For both of these episodes, the Michigan and Wisconsin moderate nonattainment areas were located downwind of the severe nonattainment areas and were likely receptors of the high ozone concentrations. The mid-June episode, while less frequent in occurrence (i.e., about 10 - 15% of the historical episode days are associated with these conditions), presents a different source-receptor relationship. For this episode, the Michigan

March 17, 1994

moderate nonattainment area is upwind and is, thus, a likely a source of the high ozone concentrations in the region.

It should be noted that the modeling results reflect base year (1991) conditions. Future year changes in the mix and relative amount of local and transported precursor emissions will be the subject of more refined modeling.

FINDINGS

Based on the modeling analyses, several important conclusions can be made:

MICHIGAN MODERATE NONATTAINMENT AREA

- The maximum impacts from VOC and NOx emissions from this area are on the order of 15 to 25 ppb for the late June and mid-July episodes, and are on the order of 40 to 70 ppb for the mid-June episode. These maximum impacts from this area generally occur outside of these three counties. For the late June and mid-July episodes, the maximum impacts from this area occur to the north and northeast in areas with predicted ozone concentrations that are less than 120 ppb, the National Ambient Air Quality Standard (NAAQS) for ozone. For the mid-June episode, the maximum impact from this area occurs to the southwest over the Lake in an area with predicted ozone concentrations that are greater than the NAAQS.
- The maximum impacts within the three counties from emissions from this area are generally on the order of 10 to 20 ppb. These local emissions contribute less than 5 ppb to NAAQS exceedances which occur in these three counties.
- NOx emissions in Kent County (Grand Rapids) and, to a lesser degree, Muskegon County suppress ozone concentrations locally within these counties, and increase ozone concentrations farther downwind.
- A 30% reduction in NOx emissions will increase ozone concentration locally by about 5 to 10 ppb, but will decrease ozone concentrations downwind also by about 5 to 10 ppb. The ozone concentration increases occur primarily within about 25 miles of Grand Rapids, and the ozone concentration decreases occur beyond this distance.
- A 30% reduction in VOC emissions will decrease ozone concentrations downwind by about 3 to 5 ppb for the mid-July episode, and by about 10 to 15 ppb for the mid-June episode. For the mid-June episode, these emission reductions appear to be necessary to lower the predicted ozone concentrations to the NAAQS.

March 17, 1984

- A combined 30% reduction in VOC and NO_x emissions (comparable to adoption of the mandatory CAAA controls) for the mid-June episode will increase ozone concentration locally by less than 5 ppb, but will decrease ozone concentrations downwind by about 10 to 15 ppb.

WISCONSIN MODERATE NONATTAINMENT AREA

- The maximum impacts from VOC and NO_x emissions from this area are on the order of 5 to 15 ppb and occur outside of these three counties. For all three episodes, the maximum impacts occur in areas with predicted ozone concentrations that are less than the NAAQS.
- The maximum impacts within the three counties from emissions from this area less than 5 ppb. These local emissions contribute less than 1 to 2 ppb to NAAQS exceedances which occur in these three counties.
- A 30% reduction in NO_x emissions will increase ozone concentration locally by about 5 to 10 ppb, but will decrease ozone concentrations downwind by about 3 ppb.
- A 30% reduction in VOC emissions will decrease ozone concentrations downwind by about 2 ppb.
- A combined 30% reduction in VOC and NO_x emissions for the mid-July episode will increase ozone concentration locally by 5 to 10 ppb, but will decrease ozone concentrations downwind by about 5 ppb.

SUMMARY

The Michigan and Wisconsin moderate nonattainment areas generally contribute as much as 15 to 25 ppb and 5 to 15 ppb, respectively, to ozone concentrations in the Lake Michigan region. (Note, for some conditions, such as the mid-June episode, the impact of the Michigan moderate nonattainment area can be considerably greater.) This small contribution is not surprising given the relatively low emissions in these counties, and the high incoming ozone concentrations at the upwind boundary. For the most frequent ozone episodes (e.g., late June and mid-July episode conditions), it is expected that emission reductions in these counties will not have much effect, if any, on reducing ozone exceedances in the region. For another, occasional ozone episode (e.g., mid-June episode conditions), however, it appears that emission reductions in western Michigan will be necessary to provide for attainment.

JOHN D. BINGHAM, MICHIGAN, CHAIRMAN

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 MICHAEL D. CRAPO IDAHO

U.S. House of Representatives
Committee on Energy and Commerce
 Room 2125, Rayburn House Office Building
 Washington, DC 20515-6115

June 8, 1994

The Honorable David R. Obey
 Chairman
 Committee on Appropriations
 U.S. House of Representatives
 Washington, D.C. 20515

Dear Mr. Chairman:

I understand that the Committee on Appropriations this week will consider the fiscal year (FY) 1995 appropriations bill reported by your Subcommittee on Transportation. While I have not seen the Subcommittee's reported mark in its entirety, I understand that it includes at least two provisions which relate to matters within the jurisdiction of the Committee on Energy and Commerce.

First, the Subcommittee adopted the following provision at the request of Representative Ralph Regula:

None of the funds made available in this Act may be used to implement, administer, or enforce the provisions of Sec. 51.438 of the final rule Criteria & Procedures: Interim period reductions in ozone and CO areas (TIP) published in the Federal Register on November 24, 1993.

The reference in the provision is to regulations promulgated in November 1993 by the Environmental Protection Agency (EPA) under section 176 of the Clean Air Act (CAA). To my knowledge, the Transportation appropriations bill includes no funds for implementation of the regulations by the EPA.

In adopting the rule referenced in the Regula amendment, the EPA concluded, based on "significant public comments," that the CAA does require the demonstration of nitrogen oxide (NOx) reductions in ozone nonattainment areas because of a reference to another section of the Act. The EPA said:

The Honorable David Obey
Page 2

"Therefore, the final rule requires the build/no-build test in ozone nonattainment areas to be satisfied for both VOC and NOx, unless the Administrator determines under § 182(f) of the Clean Air Act that additional reductions of NOx would not contribute to attainment in any area."

The Regula amendment will not change the application of the regulation to Ohio or any other state. Such states and the other entities subject to the rule must still comply. To the extent the Department of Transportation (DOT) might have an advisory role prior to EPA's determination, the Regula amendment could preclude DOT in fiscal year 1995 from helping the EPA make that determination and could preclude DOT from making conformity determinations, which would be detrimental to the states, the highway program, and employment in the construction industry. If DOT is unable to determine conformity of a highway activity with the state implementation plan, section 176(c) of the CAA precludes DOT from providing federal funds. The amendment would also appear to preclude the use of funds under the appropriations bill to enforce this section of the rule, but, as noted, would not lessen the obligation of the states to comply.

I strongly urge that your Committee not adopt this or any other provision that would undermine the CAA or the implementation of that Act and potentially have an adverse affect on highway programs. I urge that the Regula amendment be deleted from this bill.

Second, it is my understanding that the Transportation Subcommittee has recommended that your Committee direct the DOT to transfer responsibility for conducting odometer fraud investigations to the DOT Inspector General's office. The Subcommittee bill apparently does not provide the funds necessary for the Inspector General to continue the statutory obligation of the Secretary of Transportation to conduct odometer fraud investigations.

While I recognize that such a recommendation has no legal effect on the DOT, I strongly urge that your Committee not adopt such a recommendation and that, consistent with applicable law, the National Highway Traffic Safety Administration (NHTSA) continue to conduct these investigations with full funding.

I fully recognize that Subcommittee Chairman Bob Carr and his Subcommittee did not initiate this matter. The DOT, in its budget request to the Congress, cut the funds needed to carry out the odometer fraud program. The Subcommittee addressed this matter at its hearing on the DOT budget and took note of my letter of January 6, 1994 criticizing this proposed cut. Enclosed is the DOT's May 18, 1994 reply, which sets forth a very

The Honorable David Obey
Page 3

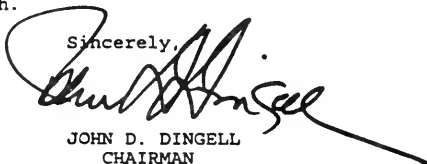
strong argument for this important program (which has collected nearly \$7 million in fines since 1985) and its continued operation by NHTSA.

I believe that Congress, in enacting the Inspector General Act of 1978, did not intend that Inspectors General would carry out program investigations of this kind. Moreover, Congress in establishing the NHTSA clearly intended that all motor vehicle safety matters be carried out by NHTSA. Additionally, the National Highway Traffic Safety Administration Authorization Act of 1991 authorized in fiscal year 1995 \$7,252,739 for NHTSA to carry out the Motor Vehicle Information and Cost Savings Act. Title IV of that Act establishes the odometer fraud duties of the Secretary, which he is obligated to carry out fully. No funds were authorized for any other DOT agency for this purpose.

In light of this, our Committee would strongly oppose any effort by the DOT to transfer this function from NHTSA to any other DOT office, including the Inspector General. I therefore urge that your Committee refrain from adopting the Transportation Subcommittee's recommendation and, despite DOT's efforts to cut funding for odometer fraud, that your Committee restore such funding. The cut does not relieve the DOT of its statutory obligations. I consider this to be a very important consumer protection matter and want to work with your Committee to restore this cut.

With every good wish.

Sincerely,



JOHN D. DINGELL
CHAIRMAN

cc: The Honorable Bob Carr, Chairman
Subcommittee on Transportation
Committee on Appropriations

The Honorable Ralph Regula, Member
U.S. House of Representatives

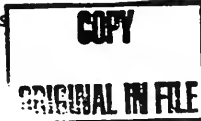


THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

MAY 18 1994

RECEIVED
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U.S. DEPARTMENT OF TRANSPORTATION

The Honorable John D. Dingell
Chairman, Subcommittee on Oversight and Investigations
of the Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515



Dear Mr. Chairman:

Thank you for your letter of January 6, 1994, concerning odometer requirements in Title IV of the Motor Vehicle Information and Cost Savings Act (the Act) and the administration of the title by this Department and the states. You ask that we provide you with a report on the status of the efforts of the Department and the states to curb or halt violations. Specifically, you request a detailed summary of enforcement actions by the Department and the states since 1985; an annual breakdown of civil and criminal actions and sums collected; an assessment of the effectiveness of private civil actions; and the role of the Department, the National Highway Traffic Safety Administration (NHTSA), the Federal Bureau of Investigation (FBI), and the U.S. Attorneys. You also request that we provide details as to the extent to which violations continue and the reasons for any continued violations. Finally, you request that we respond to allegations that the Department plans to disband NHTSA's Odometer Fraud Staff as part of the 1995 fiscal year budget planning.

First, I would like to address this Department's enforcement of the title. The enforcement responsibility lies within NHTSA which has an Odometer Fraud Staff of eight people. The Staff Chief and an Odometer Fraud Staff Assistant work at NHTSA Headquarters in Washington, DC. Four enforcement offices, located in Washington, Atlanta, Kansas City, and Denver, are each staffed with a Criminal Investigator responsible for enforcement in approximately one-fourth of the country. The offices in Kansas City and Denver each have an administrative support person. In addition to conducting investigations of large-scale odometer fraud schemes for criminal prosecution by the Department of Justice, the investigators encourage and assist state enforcement efforts, train state motor vehicle titling personnel in the detection of fraudulent odometer readings, and assist Federal agencies during other investigations, such as those involving mail fraud and bank fraud, that also include odometer fraud schemes. From 1985 to 1993, the staff completed 314 investigations that substantiated odometer fraud, referring 164 cases to the Department of Justice. These cases resulted in 123 criminal convictions totaling \$1,960,500 in fines. Enclosure 1 provides annual information for these activities. In addition, the staff has trained more than 2,000 state motor vehicle titling personnel since 1985.

In 1989, NHTSA initiated a State Odometer Enforcement Support Program. This program provides contract funds of \$25,000 to each of four states annually. The funds are used by the states to investigate odometer fraud for prosecution, recover damages for defrauded

consumers, hold interstate training for state personnel responsible for odometer fraud investigations, and conduct public awareness programs. The funds provide "seed money" for the states to initiate and maintain aggressive programs to deter odometer fraud. From 1989 to 1992, a total of \$400,000 was provided to 16 states. These states, while under contract, conducted a total of 1,807 investigations, recovering \$419,020 for defrauded consumers. There were also seven statewide public awareness programs completed. Enclosure 2 provides the results of the program for each year. Results for 1993 are not yet available as these contracts are still in progress. Congress chose not to continue funding for this program in FY 1994.

In response to your question about the role of the FBI and the U.S. Attorneys in enforcing the odometer laws, Enclosure 3 contains a yearly total of nationwide Federal criminal convictions involving odometer fraud violations, compiled by the Office of Consumer Litigation, U.S. Department of Justice. From 1985 to 1993, there were a total of 678 criminal convictions, totaling \$6,893,300 in fines. NHTSA was involved in 296 of the convictions, which resulted in fines totaling \$5,307,800, either by independently conducting or directly controlling the investigations, or by providing assistance to the lead agencies in acquiring evidence and providing testimony. The remainder of the convictions were the result of investigations independently conducted by other agencies, such as the FBI, the U.S. Postal Service, and the U.S. Attorneys. NHTSA was involved in 44 percent of all Federal convictions, and these convictions accounted for 77 percent of the total fines. This can be attributed to the expertise that NHTSA investigators have in odometer fraud investigations. Odometer fraud investigations are very complex, requiring extensive review of thousands of documents and tracing the avenue of monies through several bank accounts to establish evidence necessary to prove conspiracies.

With regard to the role of the states in deterring odometer fraud, two principal issues relate to state enforcement. First, the interstate nature of the used car industry hampers enforcement at the state level. Very few odometer fraud schemes stay within a particular state, and those persons involved in odometer fraud are aware that interstate activity makes detection and prosecution more difficult. Also, state courts do not have the power to require appearance by witnesses residing and doing business in another state. Second, the amount of attention given to odometer fraud in state agencies is based on many factors, such as the availability of funding and personnel, the effectiveness of state odometer fraud laws, the amount of pressure or influence by the media, the public or the used car industry, and the priorities of state officials. Moreover, odometer fraud enforcement is only one of many responsibilities of state enforcement agencies. Odometer fraud enforcement must be considered with other enforcement priorities in each state. The "seed money" provided to the states by NHTSA's State Odometer Enforcement Support Contract Program has, in some instances, directed attention to the problem such that higher priority is now given to odometer fraud enforcement in those states.

Although the private course of action provided for in the Act may serve as a means for recovery of damages for a defrauded consumer, it does not necessarily serve as a deterrent to

odometer fraud. The Act allows a defrauded consumer to bring an action against a violator of the law to recover treble damages or \$1,500, whichever is greater, plus reasonable attorney's fees. This action can be brought through a State Attorney General or a private attorney. State Attorneys General are more inclined to sue for the statutory minimum rather than treble damages to preclude a challenge on the computation of actual damages, which can be difficult to assess. Those consumers who choose to pursue their cases through private attorneys experience difficulty retaining an attorney because of the limited amount of money that can be recovered. Because of these conditions, consumers are willing to accept the statutory minimum or allow the violator to settle the case by merely refunding their money in return for the vehicle. In these cases, the losses by violators are minimal compared to the profits they have realized through their fraudulent practices. The loss as the result of a refund is normally recovered because the violator sells the vehicle back into the used car market, representing the odometer reading as the actual mileage. The loss created by paying the consumer the statutory minimum is recovered through profits acquired in the many illegal transactions that are not detected. Either way, violators consider any loss a "cost of doing business." In most instances, persons involved in odometer fraud will readily make these types of settlement rather than risk being reported to a law enforcement agency. It should be noted that the statutory minimum has remained at \$1,500, since 1972, when the law was first enacted, although the wholesale profit gained through turning back the mileage of a vehicle has more than tripled since 1979.

You ask whether violations continue and the reasons for their continuance. As the data in Enclosures 1, 2, and 3 indicate, violations continue. While these statistics represent enforcement parameters, they demonstrate that odometer fraud is ongoing. As part of its 1994 program, NHTSA plans to conduct an evaluation of the odometer fraud program. The evaluation will include a nationwide assessment of odometer fraud, including the extent of state enforcement of odometer laws and an assessment of used car dealer compliance with odometer disclosure requirements. Violations are continuing because odometer fraud is very profitable. The wholesale profit in 1991 for turning back the odometer of a vehicle more than tripled compared to 1979, when NHTSA first began compiling profit statistics. The data are taken from evidence obtained during criminal investigations conducted by NHTSA. Enclosure 4 presents the average wholesale profit for each year. The increase in wholesale profit can be attributed to two factors: the rise in prices of automobiles, both new and used; and the enforcement efforts throughout the country which have reduced the number of "low mileage" vehicles in the used car market. While this reduction has caused the used car industry to find ways to market higher mileage vehicles, low mileage used cars are still in great demand, causing retail automobile dealers to pay more for them.

Finally, you asked about the Department's FY 1995 plans for NHTSA's Odometer Fraud Staff. As we developed the Department's FY 1995 budget, all departmental programs were reviewed. Two principal factors in this review were the need to reduce the deficit and the relationship of each program to the mission of the Department and the modal administrations.

As this effort began, it was clear that programs were competing for limited resources and that some difficult decisions would be necessary. Based on the review, we concluded that the Department would not seek funding for the Odometer Fraud Program in FY 1995.

My staff is currently undertaking conversations with the Department of Justice on appropriate placement of odometer enforcement activities.

If I can be of further assistance, please contact me or Mr. Steven Palmer, Assistant Secretary for Governmental Affairs, at (202) 366-4573.

Sincerely,



Federico Peña

4 Enclosures

cc: The Honorable Dan Schaefer, Ranking Republican Member
Subcommittee on Oversight and Investigations

ODOMETER FRAUD

NHTSA Investigations

<u>Year</u>	<u>Completed Cases</u>	<u>Referred To DOJ</u>	<u>Criminal Convictions</u>	<u>Fines (\$000)</u>
1985	36	10	15	533.5
1986	39	15	5	70
1987	37	16	14	654.7
1988	66	35	9	210
1989	41	15	29	269
1990	38	26	12	51.1
1991	25	21	12	3.2
1992	21	19	14	105
1993	11	7	14	64
Totals	314	164	123	1,960.5

NOTE: Total convictions in a year may exceed total cases referred to DOJ as convictions were obtained as a result of cases referred to DOJ during previous year.

ODOMETER FRAUD

NIITSA State Odometer Enforcement Contracts

Year	Investigations	Funds Recovered for Consumers	Public Awareness Programs
1989	516	\$ 84,641	3
1990	52	0	2
1991	185	2,500	1
1992	1,054	331,879	1
Totals	1,807	\$419,020	7

NOTE: 1993 contractual work still in progress.

Enclosure 2

ODOMETER FRAUD

Federal Criminal Convictions Nationwide Reported to the Department of Justice

Year	Total Convictions	Total Fines (\$000)	Cases With NHTSA Support	Fines Obtained With NHTSA Support (\$000)
1985	110	1,194.9	39	960.8
1986	128	521.9	29	303
1987	101	1,717.7	38	1,488
1988	94	1,050	42	929.7
1989	112	1,492	69	928.9
1990	42	421.3	24	291.3
1991	58	334	32	258.1
1992	33	161.5	23	148
Totals	678	6,893.3	296	5,307.8

NOTE: 1993 statistics not yet available.

Enclosure 3

ODOMETER FRAUD

Average Wholesale Profit Generated by Odometer Tampering

<u>Year</u>	<u>No. of Vehicles</u>	<u>Average Age of Vehicle (Yrs.)</u>	<u>Miles Removed</u>	<u>Profit(\$)</u>	<u>Avg. Profit Per Mile Removed</u>
1979	260	2.11	33,154	699	.021
1980	410	2.26	34,001	773	.023
1981	242	2.08	29,341	800	.027
1982	202	2.76	30,637	922	.030
1983	333	2.73	31,084	1,087	.035
1984	186	3.10	37,670	977	.026
1985	97	2.49	34,307	1,471	.043
1986	69	2.43	33,100	1,574	.048
1987	279	2.65	35,531	1,475	.042
1988	244	2.52	40,684	2,116	.052
1989	301	2.78	42,762	2,324	.054
1990	578	2.51	46,888	3,618	.077
1991	31	2.29	56,489	2,690	.048

Enclosure 4

HENRY A. WALKER CALIFORNIA
 PHILIP R. SHAFER ILLINOIS
 EDWARD J. MARKEY MASSACHUSETTS
 AL SWIFT WASHINGTON
 CAROLISS COLLINS KENTUCKY
 WHEE STUAR DELAWARE
 W.J. "BULL" TALKIN LOUISIANA
 RON WYDER OREGON
 RALPH W. HALL TEXAS
 BILL RICHARDSON NEW MEXICO
 JIM SLATTERY KANSAS
 JOHN SPYART TEXAS
 RICE BOUCHER VIRGINIA
 JIM COOPER TENNESSEE
 J. ROY HOWLAND GEORGIA
 THOMAS J. MARTON NEW YORK
 EDOLPHUS TOWNS NEW YORK
 GERRY E. STODOLSKA MASSACHUSETTS
 RICHARD W. LEMMAN CALIFORNIA
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 CRAIG A. WASHINGTON TEXAS
 LYNN SCHENK CALIFORNIA
 SHEPHERD BROWN OHIO
 MIKE KREIDLER WASHINGTON
 MARGOLIS MARCOVICH MELNBERG PENNSYLVANIA
 BLANCHE M. LAMBERT ARIZONA

EARLSE J. MOOREHEAD CALIFORNIA
 THOMAS J. BULEY JR. VIRGINIA
 JACK FELDS TEXAS
 MICHAEL G. O'LEARY OHIO
 MICHAEL BURMANIS FLORIDA
 DAN SCHAFER COLORADO
 JOE BARTON TEXAS
 ALI MCNEILLAN NORTH CAROLINA
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 FRED UPTON MICHIGAN
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 MICHAEL D. CRAPO IDAHO

ALAN J. ROTH STAFF DIRECTOR AND CHIEF COUNSEL
 DENNIS B. FITZGERALDS DEPUTY STAFF DIRECTOR

The Honorable David R. Obey
 Chairman
 Committee on Appropriations
 U.S. House of Representatives
 Washington, D.C. 20515

Dear Mr. Chairman:

I understand that when the full Committee on Appropriations considers the bill reported by the Subcommittee on VA, HUD, and Independent Agencies to make appropriations for the Veterans' Administration, the Department of Housing and Urban Development, and Independent Agencies for fiscal year 1995, Representative Dean A. Gallo may offer the enclosed amendment.

I strongly urge that your Committee not adopt this attempt to indirectly amend the Clean Air Act (CAA) and to affect implementation of the reformulated gasoline (RFG) rule adopted last December by the Environmental Protection Agency (EPA). As you know, the CAA and the RFG rule require significant changes in the production and marketing of gasoline in the U.S. to meet air quality requirements. The law requires that RFG be available by January 1, 1995. Because the EPA delayed final promulgation of the rule for more than one year, refiners, pipelines, and others are struggling to meet this deadline. Failure to do so could cause national or regional shortages and/or price spikes, with resultant economic disruptions. The Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce has scheduled a hearing on these matters for June 22, 1994.

The Gallo amendment seeks to preclude the use of funds in fiscal year 1995 to implement, staff, or enforce a requirement that renewable oxygenates provide a specified percentage of the oxygen content of RFG. The RFG rule promulgated last December does not include such a requirement. However, the EPA has proposed a rule change which relates to the oxygen content of the RFG that is scheduled to be completed in this fiscal year. If the ethanol mandate is adopted in this fiscal year, it will be applicable by its terms to refiners, pipelines, etc., who must

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 U.S. House of Representatives
 Committee on Energy and Commerce
 Room 2125, Rayburn House Office Building
 Washington, DC 20515-6115

June 14, 1994

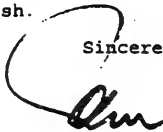
The Honorable David R. Obey
Page 2

comply whether or not the Gallo Amendment is adopted. The fact that the EPA cannot enforce the rule is not an excuse and should give them little comfort. More troubling is the fact that such an amendment could be harmful to the industry and others because it could be construed as preventing the EPA from giving guidance or interpretations to those subject to the rule change. Since last December the American Petroleum Institute and others have sought from the EPA many guidances and interpretations of the RFG rule. The EPA is responding and a similar need can be anticipated for an ethanol rule if it is adopted. The EPA's inability to respond could have serious consequences.

I urge rejection of the amendment.

With every good wish.

Sincerely,



JOHN D. DINGELL
CHAIRMAN

Enclosure

cc: The Honorable Louis Stokes, Chairman
Subcommittee on VA, HUD, and Independent Agencies
Committee on Appropriations

The Honorable Dean A. Gallo
Member of Congress

Congressman Dean A. Gallo
Proposed Language to the VA, HUD and Independent Agencies
Appropriations Act

Renewable Oxygenate Standard
Limitation Language

No funding shall be available for implementation, staffing, or enforcement of any requirement that a specified percentage of the oxygen content of reformulated gasoline (as required at 42 U.S.C. s 7545 (k)) come from renewable oxygenates, such as that requirement proposed as "Regulation of Fuels and Fuel Additives: Renewable Oxygenate Requirement for Reformulated Gasoline" at volume 58 of the Federal Register at pages 68343 through 68353.

ONE HUNDRED THIRD CONGRESS

JOHN O. DINGELL, MICHIGAN, CHAIRMAN

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U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, DC 20515-6116

October 28, 1994

The Honorable Carol M. Browner
 Administrator
 Environmental Protection Agency
 401 M Street, S.W.
 Washington, D.C. 20460

Dear Administrator Browner:

Since writing to you on July 26, 1994 concerning additional questions relative to the Subcommittee on Oversight and Investigations' June 22 hearing on the Clean Air Act and the inspection and maintenance (I/M) program, the Subcommittee received the enclosed supplemental report (B-258410) of September 28, 1994 from the General Accounting Office regarding implementation by the states of the Environmental Protection Agency's (EPA) enhanced I/M rule. A reply to the Subcommittee's July letter is overdue.

The GAO report found:

- A court ruled last April that EPA's attempt to postpone the deadline for State Implementation Plan (SIP) revisions for I/M programs was illegal.
- The court established September 15, 1994 as the deadline for final EPA approval or disapproval of all enhanced I/M SIPs that the EPA had received, with the sanction clock running from that date.
- States with disapproved SIPs or incomplete SIPs as of November 15, 1993 face a sanction clock that began running from that date.
- As of August 24, 1994, only 1 of the 23 states charged with conducting I/M programs had received EPA approval of their SIP revision.
- Fifteen states had not yet submitted complete SIP revisions, and 10 of these states told the GAO that it will be November 1994 or later before they

The Honorable Carol M. Browner
Page 2

submit an I/M SIP for EPA's review. Some, like New York, may be as late as August 1995.

- The EPA has proposed conditional approval of SIPs for five states; namely, Colorado, Maine, New Hampshire, Pennsylvania, and Wisconsin.
- The EPA has a model program which establishes the performance standard that all other programs are measured against. It assumes annual, centralized tailpipe emissions testing for all 1968 and newer vehicles.
- Some states, like California and Georgia, have hybrid programs which use both test-only and test-and-repair facilities.

My earlier letter raised questions about the Maine I/M program. The GAO states that the EPA has granted conditional approval to Maine and four other states "on the basis of the state's commitment to adopt specified enforceable measures by a certain date." What is the legal basis for this approval? How and when did each state make this commitment? When does the one year begin to run? What is the status of the conditional approval?

What states are now under sanction notice? What is the date of the notice and when will the first sanction be effective? Are all subject to an 18-month clock?

Please explain how long it takes the EPA to act on a completed SIP that is (a) test only or (b) hybrid. Has the EPA missed the September 15, 1994 deadline for any state? If yes, please explain why.

I request your reply to these matters by November 30, 1994.

With every good wish.

Sincerely,



JOHN D. DINGELL
CHAIRMAN

Enclosure

cc: The Honorable Dan Schaefer, Ranking Republican Member
Subcommittee on Oversight and Investigations

The Honorable Charles A. Bowsher, Comptroller General
General Accounting Office



United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-258410

September 28, 1994

The Honorable John D. Dingell
Chairman, Subcommittee on Oversight
and Investigations
Committee on Energy and Commerce
House of Representatives

Dear Mr. Chairman:

At your request, we are providing you with information on the Environmental Protection Agency's (EPA) rulemaking for enhanced inspection and maintenance (I&M) programs under the Clean Air Act,¹ which we discussed before your Committee on October 29, 1993. As agreed with your office, we examined the current status of the rule's implementation and EPA's rationale for a change between the proposed and final rule that deleted the option of allowing states a 2-1/2-year period to demonstrate that their test-and-repair programs can be equally effective in reducing motor vehicle emissions as programs in which tests are performed independently of the repairs. In summary, we found that:

- The adoption of enhanced I&M programs has progressed more slowly than required by the act. Had the act's schedule been followed, EPA would have approved or disapproved all state implementation plan (SIP) revisions for enhanced I&M programs by May 15, 1994. However, as of August 24, 1994, only 1 of 23 states charged with conducting enhanced I&M programs had received EPA approval of its enhanced I&M SIP. EPA has

Inspection/Maintenance Program Requirements; Final Rule, 40 C.F.R. Part 51, Federal Register, 52950-53014 (Nov. 5, 1992).

B-258410

proposed conditional approval² for 5 states and was reviewing recent SIP submissions for 2 others; however, 15 states have not yet submitted complete SIP revisions, and over half of these states told us that it will be November 1994 or later before they can do so.

- EPA deleted the provisional equivalency option from its final I&M rule that would have given states the opportunity to demonstrate that enhanced test-and-repair programs could be equally effective in reducing emissions as test-only programs.³ EPA cited, among other things, statements from selected state program administrators that they knew of no solution to the problem of test-and-repair ineffectiveness.⁴ EPA concluded that allowing states to pursue this option would delay the implementation of effective I&M programs, be inordinately expensive to attempt, and create more confusion and hardship than promptly transitioning to test-only networks.

BACKGROUND

The Clean Air Act requires that states with areas classified as serious, severe, or extreme ozone nonattainment areas, as well as certain areas with carbon monoxide problems, implement enhanced I&M programs in selected urban areas as part of their strategy to reach

²Section 110(k)(4) of the Clean Air Act allows EPA to grant conditional approval if a state commits to adding specific enforceable measures to its SIP within a specified time frame, not to exceed 1 year.

³EPA's July 13, 1992, proposed rule included a provision known as provisional equivalency that would have allowed states a 2-1/2-year period to demonstrate that their test-and-repair programs can be as effective as programs in which tests are performed independently of the repair function.

⁴Test-and-repair programs, according to EPA, have an inherent conflict of interest in that inspectors may pass a noncomplying vehicle if the motorist is a regular customer or if prior emissions-control repairs were done at the site.

B-258410

attainment.⁵ I&M programs are intended to reduce vehicle emissions by requiring better maintenance of in-use vehicles. According to EPA, enhanced I&M programs in the most polluted cities around the country could cut overall vehicle emissions by about one-third.

To ensure timely attainment of these goals, the act required EPA to issue final I&M guidance by November 15, 1991, after which state and local agencies were to prepare SIP revisions by November 15, 1992, in accordance with EPA's guidance. EPA proposed nonbinding I&M guidance in April 1991 that was the subject of some controversy and never finalized. Instead, the agency issued binding rules on November 5, 1992, that attempted to extend the SIP deadline for states by 1 year (to Nov. 15, 1993). A court ruled in April 1994 that EPA's attempt to postpone the deadline for SIP revisions was illegal in that it had improperly delayed SIP submissions beyond the statutory deadline. However, in order not to penalize the states for EPA's delay in issuing regulations, the court ruled that the agency's action could be sustained as necessary and appropriate under the circumstances. Thus, the remedy decreed by the court was to establish September 15, 1994, as the deadline for final EPA approval or disapproval of all enhanced I&M SIPs that the agency had received, with the statutory sanction clock running from that date. States that have enhanced I&M SIPs disapproved or that did not submit complete SIPs by EPA's revised submission deadline of November 15, 1993, in the court's view would also be subject to sanctions, with the sanction clock running from the date that EPA finds the SIP deficient. The final enhanced I&M rule requires that states inspect 30 percent of their vehicle fleet in test-only facilities beginning January 1, 1995; full test-only operations would begin January 1, 1996.

STATES' ADOPTION OF I&M PROGRAMS IS SLOW

As of August 24, 1994, only 1 of the 23 states charged with conducting enhanced I&M programs had received EPA

⁵In addition, section 184 requires an enhanced I&M program in any metropolitan statistical area with a population of 100,000 or more located in the ozone transport region, consisting of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and the District of Columbia.

B-258410

approval of its enhanced I&M SIP (EPA approved Texas' SIP on Aug. 22, 1994). EPA has proposed conditional approval for five states (Colorado, Maine, New Hampshire, Pennsylvania, and Wisconsin) and was reviewing recent SIP submissions from two other states (Connecticut's SIP met EPA's completeness criteria, and Nevada's SIP was being reviewed for completeness). However, 15 states had not yet submitted complete SIP revisions, and 10 of these states told us that it will be November 1994 or later before they submit an enhanced I&M SIP for EPA's review.⁶

EPA has notified these states that they will be subject to mandatory sanctions, according to the I&M Section Chief in EPA's Office of Mobile Sources, unless they submit complete SIPs within 18 months of the agency's notification. According to state representatives, almost all states expect to submit a completed SIP before the date that sanctions would be imposed. (Enc. I provides updated information on the enhanced I&M plans for each state.)

Some Progress Made, but
Much Work Remains

Although state submission and EPA approval of I&M SIPs have not progressed as envisioned, progress is being made. For example, even though its SIP has not received final approval, Maine began an enhanced I&M program on July 1, 1994. Similarly, other states are not waiting for official approval of their SIPs to begin working with potential contractors that might operate test-only facilities. For example, Connecticut and Maryland have not received final or conditional approval from EPA to begin their programs; however, state air agency officials told us that Connecticut expects to begin test-only operations on January 1, 1995, and Maryland has 17 test-only facilities under construction.

According to EPA's I&M Section Chief, none of the states are designing I&M programs that are exactly the same as

⁶Of the 15 states that have not submitted complete SIP revisions, 11 have not submitted an enhanced I&M SIP for EPA's review and 4 had their submissions returned as incomplete.

B-258410

EPA's model program,⁷ which can lengthen the agency's evaluation of states' plans. For example, California has an agreement with EPA whereby the state and EPA will evaluate alternatives to the IM-240 test,⁸ as well as evaluate the potential for reducing the number of vehicles that must be inspected at test-only facilities. Alternatives being studied in the California demonstration project include various accelerated simulation mode (ASM) tests,⁹ as well as the effectiveness of an enhanced RG-240¹⁰ test for assessing the adequacy of vehicle repairs. Additionally, this project will assess the emissions-reduction effectiveness of these tests in combination with other actions, such as using remote sensing devices,¹¹ and whether these combined actions may reduce the number of vehicles that must be tested at test-only facilities. According to the March 1994 agreement, California is

⁷EPA's model program establishes the performance standard that all other programs are measured against. Among other things, the model program assumes annual, centralized, tailpipe emissions testing for all 1968 and newer vehicles; 1986 and newer vehicles are tested using high-tech, computer-controlled emissions analyzers, combined with purge, pressure, and other tests.

⁸IM-240 is a high-tech, computer-controlled emissions analyzer that measures tailpipe emissions under a 240-second simulated driving cycle while the vehicle is driven on a treadmill-like device, called a dynamometer, that simulates vehicle load, including acceleration and deceleration.

⁹ASM tests also measure tailpipe emissions while the vehicle is driven on a dynamometer, but vehicle load is constant and the tests do not simulate acceleration and deceleration in the driving cycle.

¹⁰RG-240 is repair grade tailpipe test equipment, similar to IM-240, that also simulates a 240-second driving cycle but, according to EPA, costs less and does not offer the variability in driving conditions that the IM-240 offers.

¹¹Remote sensing devices typically use an infrared beam to measure vehicle emissions in actual traffic conditions. Unlike the IM-240, RG-240, and ASM tests, remote sensing devices measure only carbon monoxide (CO) and hydrocarbon tailpipe emissions and do not measure nitrogen oxide tailpipe emissions.

B-258410

supposed to complete the study by December 31, 1994, and use the results to design the state's subsequent SIP submission to EPA. California's current plans are to implement a hybrid I&M program. Hybrid I&M programs use both test-only and test-and-repair facilities to conduct inspections. For example, depending on the results of the study, California may implement a hybrid program that requires certain categories of vehicles--such as older passenger cars and light duty trucks--to be inspected at test-only sites. According to the I&M Section Chief, hybrid programs usually allow newer vehicles to be inspected--at the owner's option--at either facility, while older vehicles must be tested at test-only sites because they require greater maintenance.

Some other states are also proposing to implement hybrid programs. For example, Georgia's initial SIP--which has since been withdrawn--called for the state to implement a centralized, contractor-operated, test-only network employing IM-240 equipment. According to a state air agency official, the state now plans to implement a hybrid program, consisting of 200 to 300 test-and-repair stations using RG-240 testing equipment and about 25 test-only facilities using IM-240 equipment. Under Georgia's current plan, only test-and-repair facilities would be in operation in 1995; test-only facilities would begin operations in January 1996.

For states choosing to implement EPA's model program, the agency has developed the test equipment specifications, quality control procedures, and associated emissions-reductions benefits. However, states choosing to implement hybrid programs that use test procedures other than the performance standard model have to develop and demonstrate their own test equipment specifications, quality control procedures, and emissions-reduction benefits. EPA's I&M Section Chief believes these SIPs may be more time-consuming to review and approve. For example, to obtain EPA approval of the RG-240 tailpipe test, a state will have to develop its own RG-240 test specifications and quality control procedures and demonstrate the associated emissions-reduction benefits of the RG-240 test to EPA. These factors are important in reaching agreement with EPA on network design, vehicle coverage, and other I&M program features. In addition to California and Georgia, New Jersey and Virginia were also considering hybrid I&M programs, although each state's program differed from the others.

B-258410

Reasons for I&M Delays

According to EPA's I&M Section Chief, there are two key reasons for the delays in implementing the enhanced I&M programs in the 23 affected states:

- First, EPA was nearly 1 year late in issuing final enhanced I&M rules, in part as a result of the agency's decision not to finalize its controversial April 1991 proposed I&M guidance. Instead, the agency decided to issue binding regulations, which took another 19 months. Also, the agency was sued by the Natural Resources Defense Council for missing the November 15, 1991, statutory mandate, and the court subsequently ordered EPA to take final action on I&M by November 6, 1992. The final I&M rule was issued on November 5, 1992.
- Second, some groups have expressed considerable opposition to a test-only program, including the agency's preference for a centralized test-only network design employing IM-240 tailpipe testing equipment.

Agency officials explained that, subsequent to issuing the April 1991 draft guidance, EPA's Office of General Counsel advised the Office of Mobile Sources (OMS) that it should promulgate binding regulations through notice-and-comment rulemaking in order to satisfy the act's mandate that states comply in all respects with enhanced I&M directives. In response, OMS officials said that they abandoned their efforts to issue nonbinding guidance and began the more lengthy process of issuing a regulation. Although much of OMS' work was transferable, this mid-course change contributed significantly to EPA's delay in issuing the final rule.

Opposition to EPA's model program also translated into a lawsuit concerning the agency's enhanced I&M rule. Among other things, opponents challenged the agency's support for applying a 50-percent tailpipe emissions credit reduction to test-and-repair programs and asserted that the agency arbitrarily disregarded the virtues of various alternatives to the IM-240 tailpipe emissions test equipment. However, in May 1994 the court ruled that EPA's actions in establishing a performance standard based on a model program employing IM-240 equipment in centralized test-only facilities were reasonable and well within the agency's statutory authority.

B-258410

EPA'S RATIONALE FOR DELETING THE
PROVISIONAL EQUIVALENCY OPTION

EPA had proposed to include in its enhanced I&M rule an option allowing states, through an evaluation program, to demonstrate that their test-and-repair programs could achieve emissions reductions equivalent to those achieved by test-only programs. This option was known as "provisional equivalency" because EPA was temporarily and conditionally allowing states the opportunity to continue their test-and-repair programs while collecting data in support of their belief that test-and-repair programs can be equally effective as test-only programs. The states choosing to attempt this option also were required to submit a backup plan, including all necessary legislative authority, to switch to a test-only system if the program evaluation showed that the performance standard was not being met.

In its proposed I&M rule, EPA stated that, on the basis of over 15 years' experience with improper testing, inadequate oversight, and poor quality controls, the agency knew of no way to make test-and-repair programs as effective as test-only programs. Nonetheless, because EPA believed that test-and-repair proponents deserved an opportunity to present their views, the agency proposed the provisional equivalency option.

During the public comment period, EPA received over 300 written comments on its proposed I&M rule; some were for and others were against test-and-repair programs. Over two-thirds of the commenters expressed an opinion on I&M network design; most responded according to their apparent vested interest in the outcome of the rule. For example, private garages and service station owners and operators generally favored the opportunity to continue test-and-repair programs in their states, whereas existing centralized contractors believed that test-only networks would have lower costs and provide more objective testing.

Some commenters expressed concern about EPA's stated predisposition in the proposed rule's preamble that the agency knew of no way that test-and-repair programs can be made equally effective as test-only programs. Others said that EPA was, in essence, planning to prolong I&M programs doomed to inevitably fail. After considering all the comments, EPA eventually eliminated this option from its final enhanced I&M rule, citing, among other things, the statements from selected state program administrators that

B-258410

they still knew of no solution to the problem of test-and-repair ineffectiveness. Test-and-repair programs, according to EPA, have an inherent conflict of interest in that inspectors may pass a noncomplying vehicle if the motorist is a regular customer or if prior emissions-control repairs were done at the site. The agency was also influenced by comments concerning the legality of provisional equivalency. For example, some commenters asserted that the statute requires an up-front demonstration of equivalency rather than allowing the option proposed by EPA. The agency concluded that pursuing the provisional equivalency option would delay the implementation of effective I&M programs, be inordinately expensive to attempt, and create more confusion and hardship than promptly transitioning to a test-only network. Consequently, the agency deleted this option from its final rule.¹²

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For this review, we examined the Clean Air Act's I&M provisions; EPA's proposed and final I&M rules; the complete I&M docket and EPA's official response to comments; court cases pertaining to I&M issues; and relevant EPA, state, and other documents regarding the status of states' implementation activities. We discussed these issues with representatives of EPA's Office of Mobile Sources and each of the 23 states charged with conducting enhanced I&M programs. Our work was conducted from January to August 1994 in accordance with generally accepted government auditing standards.

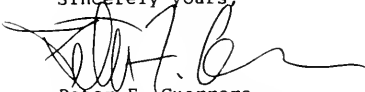
Unless you publicly announce its contents earlier, we plan no further distribution of this correspondence until 30 days after the date of this correspondence. At that time, we will send copies to the Administrator, EPA, and make copies available to others upon request.

¹²Although the provisional equivalency option was deleted, the agency's final rule retained an option in accordance with the statute allowing a state to make a case-by-case demonstration in its SIP that its test-and-repair program will be as effective as a test-only program.

B-258410

This work was performed under the direction of William F. McGee, Assistant Director, who can be reached at (919) 829-3500 if you or your staff have any questions.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'P. F. Guerrero', with a long, sweeping horizontal flourish extending to the right.

Peter F. Guerrero
Director, Environmental
Protection Issues

Enclosure

ENCLOSURE I

ENCLOSURE I

STATUS OF SIP SUBMISSIONS FOR STATES REQUIRED
TO CONDUCT ENHANCED I&M PROGRAMS

State	Complete Enhanced I&M SIP submitted ^a	Planned submission date ^b	Current network ^b	Planned network ^b	Planned test equipment ^b
California	No	2/95 - 3/95	Test & repair	Hybrid	IM-240 and pilot study alternates
Colorado	Yes ^{c,d}	Not Applicable (NA) ^e	Test & repair	Test only	IM-240 and Colorado 94
Connecticut	Yes ^f	NA ^e	Test only	Test only	IM-240
Delaware	No	By 11/25/94	Test only	Test only	IM-240
District of Columbia	No ^g	By 9/30/94	Test only	Test only	IM-240
Georgia	No ^{c,h}	By 9/15/94	Hybrid ^h	Hybrid	IM-240 and RG-240
Illinois	No	Early 1995	Test only	Test only	IM-240
Indiana	No	By 1/1/95	Test only	Test only	IM-240
Louisiana	No ^g	11/94	None	Test only	IM-240
Maine	Yes ^{c,d}	NA ^e	None	Test only	IM-240
Maryland	No	By 9/15/94	Test only	Test only	IM-240
Massachusetts	No	By 1/1/95	Test & repair	Test only	IM-240
Nevada	Uncertain ⁱ	NA ⁱ	Test & repair	Test only	IM-240 and BAR-90
New Hampshire	Yes ^{c,d}	NA ^e	Test & repair	Test only	IM-240 and 2-Speed Idle
New Jersey	No	11/94	Hybrid	Hybrid	IM-240 and ASM5015
New York	No ^j	By 8/95	Test & repair	Test only	IM-240
Pennsylvania	Yes ^{c,d}	NA ^e	Test & repair	Test only	IM-240

State	Complete Enhanced I&M SIP submitted ^a	Planned submission date ^b	Current network ^b	Planned network ^b	Planned test equipment ^b
Rhode Island	No	10/94	Test & repair	Test only	IM-240
Texas	Yes ^{c,1}	NA ^e	Test & repair	Test only	IM-240
Vermont	No	After 11/94	None	Test Only	IM-240
Virginia	No ^g	Uncertain ^k	Test & repair	Uncertain ^k	Uncertain ^k
Washington	No	11/94	Test only	Test only	IM-240
Wisconsin	Yes ^{c,d}	NA ^e	Test only	Test only	IM-240

^aSection 110 of the Clean Air Act sets forth a two-step process for the Environmental Protection Agency's (EPA) action on state implementation plan (SIP) submissions. First, within 60 days of EPA's receipt of a SIP submission, but no later than 6 months after the date by which the state is required to submit the SIP, EPA is required to make a threshold "completeness" determination. This completeness determination allows EPA to (1) screen out those submittals that are so deficient or so incomplete that they do not warrant any further review and (2) return such submittals to the states without the need to go through cumbersome rulemaking. Second, once a SIP is determined to be complete, EPA reviews the adequacy of the SIP submittal; EPA's action to approve, disapprove, or partially approve a SIP is carried out through notice-and-comment rulemaking. EPA's completeness determinations are not carried out through such rulemaking actions.

^bInformation on state plans for submitting an enhanced I&M SIP, current network, planned network, and planned equipment was obtained through phone discussions with state air agency contacts and corroborated with EPA's I&M Section Chief on August 24, 1994.

^cSelected states were subject to an April 22, 1994, court order requiring EPA to propose SIP approval or disapproval no later than July 15, 1994, and to take final action no later than September 15, 1994.

^dEPA has proposed conditional approval on the basis of the state's commitment to adopt specific enforceable measures by a certain date, not to exceed 1 year from EPA's notification.

^eNot applicable (NA); state has submitted enhanced I&M SIP revision that EPA has determined is complete.

^fConnecticut's SIP was determined to be complete on August 3, 1994, and is currently undergoing EPA's adequacy review. (See note "a.")

ENCLOSURE I

ENCLOSURE I

³State submitted an enhanced I&M SIP, but EPA determined that the SIP was incomplete and returned it for revision. (See note "a.")

Georgia submitted a SIP before the November 15, 1993, deadline, but withdrew its SIP in order to pursue a hybrid enhanced I&M program. Unlike the state's planned program, Georgia's previous hybrid program, according to EPA, did not restrict the vehicle model years that could go to test-and-repair sites.

Nevada submitted an enhanced I&M SIP in August 1994 that was undergoing EPA's completeness review as of August 1994; it is uncertain whether the SIP will be adjudged complete or returned as incomplete. (See note "a.")

As of August 24, 1994, Texas was the only state that had been granted full approval of its enhanced I&M SIP by EPA.

Virginia's June 26 enhanced I&M SIP was returned as incomplete by EPA on July 15, 1994. As of September 2, 1994, the state air agency contact had no estimate as to when the state would submit an enhanced I&M SIP. The type of I&M network the state planned to implement was also uncertain. (See note "a.")

(160247)



The Secretary of Energy
Washington, DC 20585
June 20, 1994

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BY THE SECRETARY
OF ENERGY AND INVESTIGATION

To
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The Honorable John D. Dingell
Chairman
Subcommittee on Energy, Power and Investigations
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Thank you for your letter of April 21, 1994, to Administrator Browner and myself concerning the reformulated gasoline program and, more specifically, two proposed rules issued by the Environmental Protection Agency on December 15, 1993, and April 21, 1994, concerning renewable oxygenates and refiner baselines.

The Department of Energy has worked with the Environmental Protection Agency (EPA) to assist in the implementation of a cost-effective reformulated gasoline program. I have identified many of our activities in the attached answer to question 1 of your letter. Although the Department has been involved in many aspects of this important EPA rule, the reformulated gasoline program is administered by EPA and, as such, the Department of Energy is unable to answer some of your questions and must defer to EPA for those answers. The enclosed answers, therefore, reflect the varying degrees of involvement we have had in the different issues raised by your questions.

In particular, I want to call your attention to the materials we have provided from the Department's files in response to questions 3 and 5 of your letter. These include the draft and final versions of the analysis of the impacts of the proposed renewable oxygenate standard on U.S. oil use, fossil energy use and greenhouse gas emissions, as well as copies of correspondence and internal agency memoranda concerning this analysis.

The draft analysis was provided to the Environmental Protection Agency and the Department of Agriculture on March 17, 1994, and was also distributed to a number of experts outside the government as part of a peer review process. These experts are identified in the enclosure. This review process was completed in May and the final report prepared in early June 1994.

The Honorable John D. Dingell

Page 2

Copies of the final analysis were provided to the Environmental Protection Agency and the Department of Agriculture on June 9, 1994.

Sincerely,



Hazel R. O'Leary

Enclosures *to Finn*

cc:

The Honorable Dan Schaefer, Ranking Minority Member
Subcommittee on Oversight and Investigations

The Honorable Henry A. Waxman, Chairman
Subcommittee on Health and the Environment

The Honorable Thomas J. Bliley, Ranking Minority Member
Subcommittee on Health and the Environment

The Honorable Philip R. Sharp, Chairman
Subcommittee on Energy and Power

The Honorable Michael Bilirakis, Ranking Minority Member
Subcommittee on Energy and Power

The Honorable Jack Fields
Committee on Energy and Commerce

The Honorable Sherrod Brown
Committee on Energy and Commerce

The Honorable Marjorie Margolies-Mezvinsky
Committee on Energy and Commerce

The Honorable John D. Dingell
Page 3

The Honorable Carol Browner, Administrator
The Environmental Protection Agency

Mr. Robert E. Rubin
Assistant to the President for Economic Policy

Ms. Mary Nichols, Assistant Administrator for Air and Radiation
The Environmental Protection Agency, 1994

Question 1: At the October 29, 1993, hearing by the Subcommittee on Oversight and Investigations on implementation of the CAA, I expressed concern that the delay in promulgating regulations might cause a delay in implementation by those subject to the regulations, resulting in a shortage of conventional and reformulated gasoline and higher prices. Any such shortage, whether local, regional, or national, would seriously affect the U.S. economy and general transportation needs.

The EPA and the Department of Energy (DOE) at that hearing assured me that the Administration does not expect shortages. However, the EPA and California did not expect problems when the low-sulfur diesel rule was implemented last year. Thus, I remain concerned. That concern is exacerbated by the Administration's decision to propose a change mandating a renewable oxygenate requirement and to change the February 16 rule to satisfy Venezuela. Both actions create uncertainty and raise difficult legal issues.

(a) Please describe the actions each of your agencies have taken or plan to monitor timely compliance with the regulations and to ensure that there will be no shortages of gasoline of any kind beginning on January 1, 1995, under the regulations as finalized on February 16.

(b) To comply with these regulations, the gasoline will likely have to be delivered and stored long before January 1. What situations could arise that might disrupt supplies of either conventional or reformulated gasoline or fuels for other uses, taking into consideration contracts for supplies, changes in contracts to accommodate ethanol changes, permits, tank capacity, transportation, lead time, blending, and other factors? Based on the latest information available to your agencies since the hearing, do you anticipate any shortages or pricing problems?

(c) To what extent will these two proposals affect compliance by January 1, 1995? What pricing issues could arise under the RFG rule, with or without these two proposals?

Answer:

(a) The Department of Energy (DOE) staff has been working and will continue to work with the responsible offices within the Environmental Protection Agency (EPA) to identify and address possible implementation problems. These efforts have ranged from participation in the regulatory negotiation and the filing of detailed comments on EPA's notices of proposed rulemaking to analysis of specific issues raised by EPA staff. These specific actions or products include:

- technical assistance to EPA in developing the "complex" reformulated gasoline certification model,
- cost effectiveness analysis of alternative year-2000 NO_x reduction standards,
- identification of current ethanol supply and demand patterns with implications

for necessary ethanol movements,

- analysis of implications of the switch from JP-4 to JP-8 for specific refiners, and
- analysis of the ability to move refined product to PADD IV in the event of refinery closures.

In addition to these specific DOE efforts, the National Petroleum Council performed a detailed multi-year study, at the request of the Department of Energy, addressing a wide range of issues related to the reformulated gasoline rules. This study was published in October 1993 and directly addresses questions of reformulated gasoline availability in 1995. A copy of this study is enclosed.

(b) Compliance with the reformulated gasoline rules could be affected by a large number of factors including EPA's proposed renewable oxygenate standard. To meet the reformulated gasoline requirements refineries must have available additional equipment needed to achieve vapor pressure, oxygenate and benzene requirements. In addition, additional tankage to accommodate the increased number of segregated fuel components and terminal blending will be required. Finally, an adequate supply of oxygenates will be needed, especially ethanol, if the EPA proposed ROS is finalized.

Based on the results of the National Petroleum Council study and recent contacts we have had with the refinery industry, we do not anticipate any significant shortages or pricing problems as a result of the reformulated gasoline requirements. However, we intend to work closely with industry, EPA and DOE's Energy Information Administration to identify, as early as possible, any potential problems. We will work with EPA to monitor refiners' capacity to produce reformulated gasoline and the capability of the logistics systems to handle the required gasolines and oxygenates. We will also monitor production and inventory trends. This should enable us to spot any potential trouble spots and allow the industry to take action to avoid product shortages.

(c) Of the two proposals, the renewable oxygenate requirement has the greater potential to affect reformulated gasoline prices and supply. DOE has not analyzed the potential impacts but has encouraged EPA to consider ways to implement the proposal that would minimize the possibility of a disruption, including options to phase-in the percentage renewable oxygenate requirement over a longer period of time.

Question 2: EPA staff tells us that Venezuela was not a party to the regulatory negotiation for this rule. Did anyone represent foreign interests, including Venezuela's interests, such as the seller of Venezuelan gasoline in the U.S.? If not, why not? To what extent were the proponents of the ethanol proposal participants in the regulatory negotiation (Reg. Neg.) and signers to the "Agreement in Principle" of August 1991? Please explain to what extent, if at all, this proposal differs with that agreement.

Answer: We defer to the Environmental Protection Agency for an answer to this question.

Question 3: With regard to the new ethanol proposal, the EPA preamble to the new regulations discusses a February 26, 1992, ethanol proposal made by the EPA pursuant to former President Bush's announcement that he wanted ethanol to effectively compete in the RFG program. As a supporter of the use of ethanol, I share that view. However, the preamble indicates that the EPA had a number of "concerns with respect to its legality, energy benefits, and environmental neutrality" and that since then the "concerns have been enhanced." The preamble then concludes:

While EPA maintains that the program would have provided an economic incentive for the use of renewable oxygenates in reformulated gasoline up to a 30% market share, EPA acknowledges that the proposal would have intruded into the efficient operation of the marketplace, impacting the cost of the reformulated gasoline program. As a result, after taking into account the cost, non-air quality and environmental impacts, and energy impacts, EPA has found itself with no choice but to back away from the renewable oxygenate provisions of the February 26, 1993 proposal.

Representatives Sherrod Brown and Jack Fields, in a February 22 letter to the EPA, state that the EPA "is on record as saying it is without legal authority to issue an ethanol mandate." They refer to EPA's final Regulatory Impact Analysis in support of this statement.

Did the DOE have concerns similar to those mentioned in the preamble by the EPA? Please provide all internal and interagency letters, memoranda, and other documents in DOE's and EPA's files about those ethanol-related concerns.

Please explain how this new proposal overcomes each of the above concerns. Please provide the statutory authority for such a mandate, taking into consideration the policy of section 250(b) of the CAA.

Answer: DOE provided formal comments on the February 26, 1992, proposal in which we opposed the ethanol related element of that rule and expressed concerns consistent with those cited in the preamble to the December 15, 1993 proposal.

The requested material is contained in the enclosures.

The Department defers to EPA for an answer to the other parts of this question.

Question 4: Please explain the origin of the new ethanol proposal and the decision to propose it in December. Was this decision made by the EPA or others? Please provide all internal and interagency memoranda and other documents in EPA's files concerning the making of the decision to propose a new ethanol rule.

Answer: We defer to the Environmental Protection Agency for an answer to this question.

Question 5: The enclosed March 7, 1994 article in New Fuels Report alleges that the DOE is considering whether to release a new "controversial" analysis. Please provide a copy of all versions of the analysis to the Subcommittee and include them in the rulemaking record. What is the status of the analysis and is the DOE planning to withhold or delay its release?

Answer: The draft analysis was provided to EPA on March 18, 1994 and to other peer reviewers in April 1994. All versions of the analysis are included in the enclosures. The materials provided make it quite clear that the Department did not withhold or delay the release of our draft analysis. After circulating the analysis for peer review, we responded to all comments that we received in preparing the enclosed revised and final analysis. The final analysis has been submitted to EPA for inclusion in the rulemaking record.

Question 6: Please explain the effect of the ethanol mandate on energy use and greenhouse gas emissions from the gathering of the new material through the consumption of the final fuel. Is the effect significant and of concern to the DOE or the EPA or both?

Answer: Our analysis of the impact of the renewable oxygenate standard on energy use and greenhouse gases indicates that, under all likely cases using current technology, fossil energy use decreases slightly, oil use increases slightly and greenhouse gas emissions are essentially unchanged. In the longer run, when advanced DOE technology is used to produce ethanol, fossil energy use and greenhouse gas emissions would be substantially reduced.

Question 7: (a and b) Does the ethanol proposal achieve the primary regulatory objective of the RFG and does it include specific performance criteria to qualify oxygenates as renewable?

(c) Does it violate the principle of fuel neutrality under the CAA and the Energy Policy Act of 1992?

(d) What are the benefits of the proposal?

Answer: (a) EPA has received numerous comments on the proposal, many of which address the relationship between Clean Air Act objectives and the renewable

oxygenate standard. EPA will be considering these comments, its own analysis and the analysis prepared by DOE in arriving at an answer to this question.

(b) The proposal does not contain specific performance criteria to qualify oxygenates as renewable but does request comments on whether such criteria should or can be developed and applied. The Department has not reached any conclusions on whether such criteria should be included.

(c) We believe that the proposed ROS will function much like the alternative fuel use requirements of the Energy Policy Act (EPACT). These alternative fuel requirements assure competition among oil and non-oil fuels in the market place. Similarly, the proposed ROS assures that ethanol and MTBE will compete throughout the year in the reformulated gasoline program. Both the proposed ROS and the EPACT alternative fuel requirements are steps on the road to a competitive and fuel-neutral marketplace.

(d) If the proposal is finalized, renewable oxygenates such as corn ethanol, cellulosic ethanol and bio-methanol will be assured a role in the growing oxygenate market. This creates the potential for significant long term reductions in fossil energy use and greenhouse gas emissions as technology developments increase the competitiveness of renewable fuels that use waste or cellulosic feedstocks.

Question 8: If the ethanol proposal is not adopted by the EPA, will ethanol be able to compete effectively in the RFG program? If not, why not?

Answer: If the proposal is not adopted by the Environmental Protection Agency, it is likely that ethanol will be competitive in reformulated gasoline primarily during the winter season. There also may be a number of area- and refiner-specific circumstances where ethanol will be competitive during the summer in the first 4 years of the program (Phase I). During Phase II (2000 and after), when even greater vapor pressure reductions are required, ethanol in the form of ETBE may be competitive with MTBE during the summer because of ETBE's relatively low vapor pressure.

ANL/ESD-19

Energy and Crude Oil Input Requirements for the Production of Reformulated Gasolines

by M. Singh and B. McNutt*

Center for Transportation Research, Energy Systems Division,
Argonne National Laboratory, 9700 South Cass Avenue, Argonne, Illinois 60439

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NOTATION

Initialisms

ANL	Argonne National Laboratory
CAAA	Clean Air Act Amendments of 1990
CG	conventional gasoline
CO	carbon monoxide
EPA	U.S. Environmental Protection Agency
EPACT	Energy Policy Act of 1992
ETBE	ethyl tertiary butyl ether
ETOH	ethanol
HC	hydrocarbon
LP	linear programming
MTBE	methyl tertiary butyl ether
NGL	natural gas liquid
NPC	National Petroleum Council
NPRM	Notice of Proposed Rulemaking
OG	oxygenated gasoline
PADD	Petroleum Administration Defense District
RIA	Regulatory Impact Analysis
RFG	reformulated gasoline
RVP	Reid vapor pressure
T.A.P.	toxic air pollutants
TM	Turner, Mason, and Company
VMT	vehicle miles traveled
VOC	volatile organic compound

Units of Measure

Btu	British thermal unit
psi	pound per square inch

**ENERGY AND CRUDE OIL INPUT REQUIREMENTS FOR THE
PRODUCTION OF REFORMULATED GASOLINES**

by

M. Singh and B. McNutt

ABSTRACT

The energy and crude oil requirements for the production of reformulated gasoline (RFG) are estimated. The scope of the study includes both the energy and crude oil embodied in the final product and the process energy required to manufacture the RFG and its components. The effects on energy and crude oil use of employing various oxygenates to meet the minimum oxygen-content level required by the Clean Air Act Amendments are evaluated. The analysis shows that production of RFG requires more total energy, but uses less crude oil, than that of conventional gasoline. The energy and crude oil use requirements of the different RFGs vary considerably. For the same emissions performance level, RFG with ethanol requires substantially more total energy and crude oil than does RFG with methyl tertiary butyl ether (MTBE) or ethyl tertiary butyl ether. A specific proposal by the U.S. Environmental Protection Agency, designed to allow the use of ethanol in RFG, would increase the total energy required to produce RFG by 2% and the total crude oil required by 2.0 to 2.5% over the corresponding values for the base RFG with MTBE.

1 INTRODUCTION

The Clean Air Act Amendments (CAAA) of 1990 require that, beginning in 1995, reformulated gasoline (RFG) replace conventional gasoline in the nine worst ozone nonattainment areas in the United States with a 1980 population of 250,000 or more (Section 211(k)). Other ozone nonattainment areas may also require the use of RFG as an element of their states' State Implementation Plans. The CAAA establish general requirements to be met by RFG (nitrogen oxide emissions and oxygen, benzene, and heavy metals content), and they also require that RFG meet the more stringent of either a formula or a performance standard for volatile organic compounds (VOCs) and toxic air pollutants. The performance standards are more stringent for 2000 than for 1995. The U.S. Environmental Protection Agency (EPA) is responsible for promulgating the regulations implementing the RFG program.

The CAAA state that in developing the RFG regulations, the EPA should require the greatest reductions achievable in ozone-forming VOCs and toxic air-pollutant emissions,

taking into consideration the cost of achieving the emission reductions, any nonair-quality- and other air-quality-related health and environmental impacts, and *energy requirements* (Section 211(k)(1)). This report provides an analysis of the energy and crude oil input requirements associated with the production of various RFGs that would meet the EPA RFG program requirements. Differences in energy and crude oil use among RFGs meeting the same performance standards exist for a number of reasons. In particular, the oxygenates used to provide the required oxygen content for RFG vary in volume, energy content, volatility, and energy required to produce them. The oxygenates, in turn, affect the volume and composition of the hydrocarbon (HC) portion of the RFG.

The specific stimulus for the analysis presented in this report is the February 1993 EPA Notice of Proposed Rulemaking (NPRM) on RFG, which would allow RFG blended with ethanol to meet a lesser VOCs reduction standard (Phases I and II) or a lesser Reid vapor pressure (RVP) standard (Phase I) than RFGs produced with other oxygenates (FR Vol. 58, No. 37). (Phase I RFG is required from 1995 through 1999, and Phase II RFG is required beginning in 2000.) The EPA appears to have considered energy requirements as a basis for this proposal. The preamble of the EPA NPRM makes reference to the possibility of energy or oil savings and associated energy security benefits with implementation of the proposal. However, neither the NPRM nor the Draft Regulatory Impact Analysis (RIA) (February 5, 1993) presents any data or analysis to document such benefits. The analysis presented in this report assesses these presumed savings.

While the stimulus for the analysis presented here is EPA's specific proposal, the results of the analysis are applicable more generally than to the proposal alone. Alternative forms of using ethanol in RFG other than that proposed are considered in this analysis (e.g., ethanol in ethyl tertiary butyl ether [ETBE]). This report also provides estimates of energy and crude oil requirements associated with RFG with methyl tertiary butyl ether (MTBE) as oxygenate, as well as of such requirements associated with the production of conventional gasoline and gasoline oxygenated for use in programs aimed at controlling carbon monoxide (CO) emissions.

2 METHODOLOGY

2.1 ANALYTICAL FRAMEWORK

The overall framework for the analysis considered in this report is reflected in Figure 1. For each type of RFG, the volume and type of feedstock (e.g., hydrocarbon, alcohol, and isobutylene) required for the gasoline and oxygenate components are estimated. The process energies are also estimated, by amount and type, for refining the hydrocarbons and producing the alcohols, the isobutylene, and the ethers. Together, these process energies and feedstocks define the composite energy and oil requirements of RFG with MTBE, ethanol, and ETBE as oxygenates. The various RFGs are evaluated on the basis of their delivering equal energy for constant vehicle miles traveled (VMT).

The analysis focuses on the production of year 2000 (summer), VOC-controlled RFGs. The RFGs contain 2.1% oxygen by weight¹ and are produced in a modeled, typical Petroleum Administration Defense District (PADD) II (Chicago area) complex refinery. The Chicago area is one of the nine areas required to use RFG and is a key market for fuel ethanol sales. Although RFG production will vary among PADDs, we believe the general trend indicated in the results presented below would be the same for other PADDs.

The baseline fuel in this analysis is RFG with MTBE, the oxygenate most likely to be used in the production of RFG. This RFG produces a VOCs reduction, relative to the CAAA baseline conventional gasoline, of 27 to 41%, depending on whether the February 1993 or April 1992 version of the proposed EPA complex model is used. The EPA is developing this model for use in implementing the RFG program. The characteristics of RFG with MTBE are indicated in Table I. The refinery-related energy and oil inputs needed to produce this gasoline were calculated by Turner, Mason, and Company (TM), by using the TM refinery linear programming (LP) model, for the National Petroleum Council (NPC) Refinery Study (1993).

The constraints on the refinery LP model were changed to reflect a mixed RFG pool, with 70% of the RFG using MTBE as the oxygenate and 30% using ethanol, both at the 2.1% oxygen content level consistent with the requirements of the February 1993 EPA NPRM. The characteristics of this mixed RFG pool are described in Table I. The VOCs performance of the mixed RFG pool was held to the original 41% per the April 1992 version of the EPA complex model. The total energy content of the total volume of RFG produced daily (i.e., volume \times specific energy content) and other key product characteristics and product volumes (e.g., diesel fuel) were held constant. The refinery model was allowed, within these constraints, to optimize on the basis of cost. Energy and crude oil input requirements were then recalculated.

¹ The CAAA require that the oxygen content of RFG be a minimum of 2.0% by weight. The oxygen content of 2.1% used in this analysis reflects the estimated compliance margin specified in a study (the NPC Refining Study) conducted by the National Petroleum Council (1993) of the implications of the CAAA for the refinery industry.

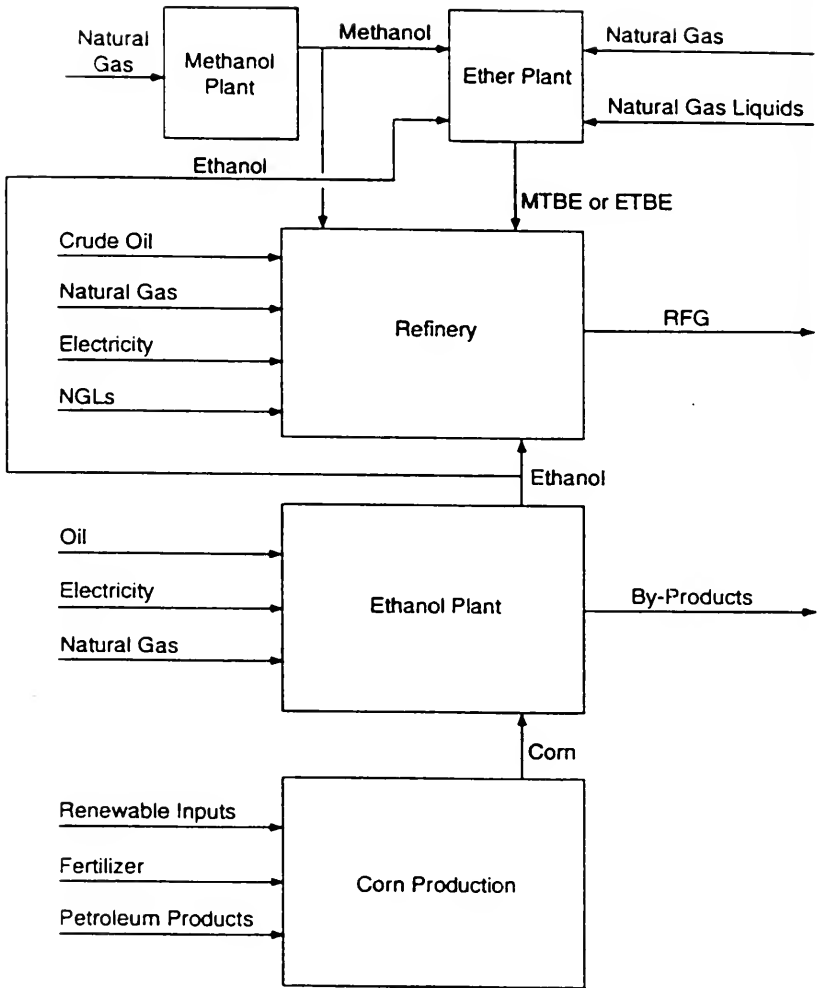


FIGURE 1 Overall Framework Employed in Analysis of Energy and Oil Requirements for RFG Production

The NPC Refining Study did not include a separate LP model run of ethanol use in the pool at the 2.7% level. The EPA proposal allows the ethanol content in the pool to be as much as 2.7% oxygen content by weight. This level of use is evaluated in this report, but only in terms of changes in the component volumes required.

Ethanol may be used in RFG in other ways than that proposed by EPA. This analysis examined two such additional uses: (1) production of all the RFG with ethanol only and (2) production of all the RFG with ETBE only. As with the other RFGs analyzed in this report, these two RFGs comply with the EPA's RFG performance standard requirements (e.g., the VOCs performance standard). The NPC Refining Study did not include separate runs for either of these RFGs. However, data from the LP model runs just presented and other available LP model runs (which evaluated the energy and oil impacts of changes in the RVP of the hydrocarbon portion of the RFG) have been used to approximate the changes in the RFG HC energy and oil input requirements for these two cases. The NPC Refining Study also provided an LP model run for conventional gasoline produced in PADD II.

Argonne National Laboratory (ANL) has developed a spreadsheet model incorporating (1) the above computations of energy and oil use in the refinery production of RFG and (2) other estimates of the energy required to produce the various oxygenates outside the refinery. The model also normalizes both sets of estimates to the delivery of equal energy content. Finally, the spreadsheet model is used to derive estimates of the energy and oil needed to produce a variety of fuels with the 2.7% oxygen content required for control of carbon monoxide (CO) emissions in various areas of the country.

2.2 KEY ASSUMPTIONS AND INPUTS

The key assumptions and inputs for this analysis include the following:

- The production of 100% RFG in the PADD II Complex Refinery Model is representative of the gasoline refining situation that would exist if the regulations were to be imposed as proposed.
- The VOCs standard for 2000 is such that the refinery must operate at the "knee" in the VOCs/cost curve, with a cost-effectiveness value of about \$10,000 per (summer) ton of VOCs reduced.
- All marginal changes in isobutylene demand for ether production in merchant ether plants are derived from natural gas liquids (NGLs).
- Ethanol, methanol, and ether production are as described in the sources cited below.

TABLE 1 Characteristics of Selected RFGs

Item	RFG with MTBE (Case S6)	Combined RFG: 70% with MTBE, 30% with Ethanol (Case S13H)
Properties		
Aromatics (vol %)	23.9	23.6
Oxygen (wt %)	2.1	2.1
Olefins (vol %)	10.3	10
Benzene (vol %)	0.7	0.7
Sulfur (ppm by weight)	236	86
RVP (psi)	6.6	6.8
T50 (°F)	208	209
T90 (°F)	342	327
EVAP @ 200°F (%)	47.8	47.4
EVAP @ 300°F (%)	81.5	84.8
Emissions Reduction from Statutory Base^a (%)		
VOCs	41	41
NO _x	0	5
T.A.P. ^b	33	39

^a Per EPA, 4/92 CF.

^b T.A.P. = toxic air pollutants.

Source: Turner, Mason, and Co. (Table F-1, Jan. 8, 1993, draft).

The assumption involving production of 100% RFG requires explanation. The primary reason we use 100% RFG production in this analysis is that the number of gasoline types and grades that could be handled within the refinery LP model was limited. Each of the refinery LP model runs contained a regular and premium RFG with MTBE and a regular and premium RFG with ethanol. Adding conventional gasolines to these RFGs was not possible without modifying the refinery LP model structure. However, we believe that the results obtained for 100% RFG production are representative of (though not identical to) the results that would be obtained with only substantial (50% or more) RFG production. This is true in part because of the anti-dumping provisions of the RFG regulations and because the RFGs would be produced at the minimal RVP level of 6.5 pounds per square inch (psi), as in 100% RFG production. It may also be likely that once a refinery chooses to produce a substantial volume of RFG, it will in fact choose, for economic reasons, to produce virtually 100% RFG. The results presented here are believed to be representative of individual refineries. Information from the NPC Refining Study (NPC 1993) and other sources suggests that, for many refiners, the costs of moving to 100% RFG production are small relative to the logistics and marketing benefits of such production.

3 ENERGY AND CRUDE OIL REQUIRED TO PRODUCE RFG AT 2.1% OXYGEN CONTENT

Reformulated gasoline will make use of various oxygenates (MTBE, ETBE, and ethanol), and the energy content of each oxygenate differs. Moreover, the various oxygenates replace different volumes of gasoline in achieving the same oxygen level in the RFG. As a result, the type of oxygenate used and its volumetric proportion in the RFG will affect the energy delivered for vehicle propulsion. The following analysis provides estimates of the volumes of RFG of different formulations required to deliver equal energy for propulsion, as well as the crude oil content of each fuel.

The energy required to produce the various RFGs and the crude oil required in the process also vary by RFG type. This analysis presents estimates of the energy and crude oil requirements for the production of various RFGs. Tables 2 and 3 present the conclusions of the full analysis. The following discussion walks the reader through Table 2 and discusses the assumptions and data used to derive the estimates.

3.1 VOLUME OF RFG REQUIRED TO DELIVER EQUAL ENERGY CONTENT

Five RFGs or RFG product mixes are compared in Table 2: RFG with MTBE, RFG with ETBE, RFG with ethanol, and two mixed RFG pools (containing both MTBE and ethanol) that would satisfy the recent EPA proposal that up to 30% of the RFG sold in northern nonattainment areas contain ethanol. These five RFGs are designed to satisfy year 2000 (Phase II) RFG requirements in PADD II.

Also represented are two conventional gasolines (CGs). One of these gasolines is assumed to contain no ether. The other is a conventional gasoline sold or likely to be sold in PADD II in the absence of regulations requiring RFG; it contains 2% MTBE. Each type of gasoline is listed in Column 1.

Column 2 of Table 2 lists the components of each gasoline that are of particular interest in this analysis: hydrocarbons, ethers, and ethanol. Column 3 presents the share of each of these components in a gallon of each gasoline type. This share is based on the volume of ether or ethanol required to meet the minimum 2.1% oxygen-content level required of the RFG (2.7% with ethanol is assumed in one case); the source of these volume estimates is presented in Table 4. Column 4 of Table 2 presents the total energy content of each gasoline type. The total energy content is based on the share of each component in a gallon of gasoline (Column 3) and the energy content (lower heating value) of each component, as presented in Table 4. Although the energy content of HCs used in the RFGs varies slightly from one RFG to another, as demonstrated by the refinery LP runs, we have held this energy content constant here.²

² A sensitivity analysis was run to determine the effect of varying the HC energy content. We found the effect not to be significant with respect to the conclusions of the overall analysis reported here.

TABLE 2 Fuel Volumes and Energy Content for 2.1% RFG

Fuel Type	Compo- nents	Initial Volume (gal)	Energy Content of Initial Volume (Btu)	Revised Volume to Deliver Equal Btu as RFG with MTBE (gal)	Revised Energy Content of Fuel (Btu)	Oil Content of Equal-Btu RFG (Feedstock)	Energy Required to Produce Equal-Btu RFG (Btu)	Oil Required to Produce Equal-Btu RFG (Btu)	Total Energy Required to Deliver to Refinery Equal-Btu RFG (Btu)	Total Oil Required to Deliver Equal-Btu RFG (Btu)
RFG with MTBE at 2.1% O ₂	HCs	0.883	101,142	0.883	101,142	101,142	15,998	9,060	117,138	110,202
	MTBE	0.117	10,912	0.117	10,912	647	2,037	0	12,949	647
	Total	1.000	112,053	1.000	112,053	101,789	18,033	9,060	130,087	110,849
RFG with ETBE at 2.1% O ₂	HCs	0.867	99,272	0.866	99,176	99,176	15,469	8,667	114,643	107,642
	ETBE	0.133	12,891	0.133	12,879	665	4,203	303	17,081	969
	Total	1.000	112,163	0.999	112,053	99,840	19,671	8,970	131,725	108,611
RFG with Ethanol at 2.1% O ₂	HCs	0.840	107,630	0.939	107,518	107,518	22,314	13,434	129,832	120,952
	ETOH	0.060	4,540	0.060	4,535	0	3,531	339	6,067	339
	Total	1.000	112,170	0.999	112,053	107,518	25,845	13,773	137,899	121,291
RFG Mix No. 1 (70% RFG with MTBE at 2.1% O ₂ ; 30% RFG with ETOH at 2.1% O ₂)	HCs	0.900	103,088	0.900	103,056	103,056	17,841	10,336	120,897	113,392
	MTBE	0.082	7,638	0.082	7,636	121	1,454	0	9,090	121
	ETOH	0.018	1,362	0.018	1,362	0	1,080	102	2,422	102
	Total	1.000	112,088	1.000	112,053	103,177	20,356	10,438	132,409	113,615
RFG Mix No. 2 (70% RFG with MTBE at 2.1% O ₂ ; 30% RFG with ETOH at 2.7% O ₂)	HCs	0.895	102,499	0.897	102,650	102,650	17,771	10,295	120,421	112,945
	MTBE	0.082	7,638	0.082	7,649	121	1,457	0	9,106	121
	ETOH	0.023	1,751	0.023	1,754	0	1,366	131	3,119	131
	Total	1.000	111,869	1.001	112,053	102,771	20,593	10,426	132,646	113,188
CG in PADD II	HCs	0.980	112,210	0.983	110,216	110,216	17,066	12,957	127,282	123,173
	MTBE	0.020	1,871	0.020	1,837	1,032	263	0	2,101	1,032
	Total	1.000	114,081	0.982	112,053	111,248	17,329	12,957	129,382	124,205
CG with No Ether	HCs	1.000	114,500	0.979	112,053	112,053	17,350	13,173	129,403	125,227
	MTBE	0.000	0	0.000	0	0	0	0	0	0
	Total	1.000	114,500	0.979	112,053	112,053	17,350	13,173	129,403	125,227

TABLE 3 Relative RFG Volumes and Energy Content^a

Fuel Type	Total Energy Use ^b	Total Oil Use ^b
RFG with MTBE at 2.1% O ₂	1.000	1.000
RFG with ETBE at 2.1% O ₂	1.013	0.982
RFG with Ethanol at 2.1% O ₂	1.060	1.094
RFG Mix No. 1 (70% RFG with MTBE at 2.1% O ₂ ; 30% RFG with ETOH at 2.1% O ₂)	1.018	1.025
RFG Mix No. 2 (70% RFG with MTBE at 2.1% O ₂ ; 30% RFG with ETOH at 2.7% O ₂)	1.020	1.021
CG in PADD II	0.995	1.120
CG with No Ether	0.995	1.130

^a Based on last two columns of Table 2.

^b Compared with RFG with MTBE at 2.1% O₂ (base case).

Column 5 presents, for each gasoline type, the volume required to deliver the same total energy (see column 6) as is delivered by a gallon of RFG with MTBE at 2.1% oxygen. This RFG type (with MTBE) serves as the baseline for this analysis. The RFGs are actually very similar in terms of the volume of fuel required to deliver the same energy. As expected, because of the addition of oxygen and subsequent lower energy content of RFG, a greater volume of RFG is required than is the case with conventional gasoline.

3.2 FEEDSTOCK REQUIREMENTS

The remaining analysis is based on the fuel volumes presented in Column 5 of Table 2, which are the volumes of each fuel required to deliver equal energy. Column 7 presents the crude oil content of the various gasolines. The estimates of crude oil content

TABLE 4 Oxygen, Alcohol, and Energy Content of Oxygenates and Hydrocarbons

Item	Oxygen/ Alcohol Content (%)	Item	Energy Content (Btu/gal)
Oxygen Content in RFG		Ethanol	75,670
2.1% O ₂	13.30 ETBE	Methanol	56,560
	11.67 MTBE	Isobutylene	94,000
	6.00 Ethanol	ETBE	96,926
2.7% O ₂	17.10 ETBE	MTBE	93,528
	15.00 MTBE	HCs Typical in RFG	114,500
	7.71 Ethanol	Butane	95,038
Alcohol Content of Ethers			
ETBE	42.5		
MTBE	33.9		

take into account the feedstock used to produce these components, but not the process energy requirements. The crude oil contents of the various components of gasoline are provided in Table 5.

The hydrocarbon portion of gasoline is assumed to come from 100% crude oil feedstock. In fact, some natural gas (as hydrogen) and some natural gas liquids are used as feedstocks, and their proportion in the final fuel may vary across gasoline formulations. We have not accounted for this potential shift in feedstock. The NGLs themselves can be made from crude oil, thereby complicating the analysis of such a shift.

The crude oil content of ETBE and MTBE reflects the crude oil feedstock used to produce the isobutylene component of these ethers. Ethanol and methanol have no crude oil content. Isobutylene may be produced from crude oil or NGLs. In this analysis, we assume that all isobutylenes produced outside the refinery and used to make ethers outside the refinery are derived from NGLs. These NGLs, in turn, are assumed to be derived from natural gas-related sources, not crude oil. This assumption is consistent with the definitions of the 1992 Energy Policy Act (EPACT). In EPACT, ethers (and, implicitly, the NGLs used in the production of ethers) are defined as "replacement fuels" or fuels that are "substantially not petroleum" (Section 301).

The isobutylenes used within the refinery to produce ethers are treated as oil-derived because it is most likely that they will be derived from crude oil within the refinery. Although this treatment is not strictly consistent with EPACT definitions, we believe that it accurately reflects the actual processing path.

TABLE 5 Crude Oil Content of Oxygenates (Crude Oil Feedstock)*

Component/Fuel	Crude Oil Content (%)	Production of Ether and Isobutylene		Oil Feedstock for Isobutylene	
		Internal (share)	External (share)	Internal (share)	External (share)
Ethanol	0	-	-	-	-
Methanol	0	-	-	-	-
Isobutylene					
For ETBE in RFG	7.5	-	-	-	-
For MTBE in RFG	7.5	0.075	0.925	1	0
For MTBE used with ethanol in mixed RFG pools	2.0	0.02	0.98	1	0
For MTBE in CG	71.0	0.71	0.29	1	0
ETBE	5.2	-	-	-	-
MTBE Only in RFG	5.9	-	-	-	-
MTBE Used with Ethanol in Mixed RFG Pools	1.6	-	-	-	-
MTBE in CG	56.2	-	-	-	-
Hydrocarbons	100.0	-	-	-	-

* Based on refinery LP run results for internal ether production vs. purchase from outside sources.

The derivation of the proportion of isobutylene used within the refinery to produce ethers is based on estimates developed in the NPC Refining Study (NPC 1993). For that study, TM developed estimates of the materials that would be used in the production of various gasolines, both conventional and reformulated. Table 6 gives several TM estimates of the raw materials that would be used in the refinery to produce the MTBE needed for RFG and CG production. The listing of MTBE as a "raw material" implies that it (and its isobutylene content) is produced outside the refinery. Where methanol is listed as a "raw material," it is assumed that the isobutylene used with this methanol to produce MTBE is produced in the refinery.

We estimate that, for the case where all the RFG contains MTBE, 7.5% of the ethers will be produced within the refinery. For the RFG with MTBE that is part of the product mix

TABLE 6 Refinery Products, Fuels Usage, and MTBE Raw Materials for PADD II Gasoline: 2000

Item	Base Case, No CAAA (Case Q9)	100% RFG, MTBE Only (Case S6)	100% RFG, 30% ETOH (Case S13H)
Products (Bbl/d)			
Gasoline	1.682E+06	1.713E+06	1.717E+06
(% ether or ethanol)	2	12	10
Diesel	6.820E+05	6.820E+05	6.820E+05
Jet fuel	2.050E+05	2.050E+05	2.050E+05
Subtotal	2.569E+06	2.600E+06	2.604E+06
Plant fuel burned	2.306E+05	1.855E+05	2.007E+05
Other	3.620E+05	3.775E+05	4.293E+05
Total	3.162E+06	3.163E+06	3.234E+06
Fuels Used for Production (Bbl/d FOE*)			
Plant fuel burned	2.306E+05	1.855E+05	2.007E+05
Natural gas purchased	3.290E+04	6.820E+04	7.090E+04
Electricity (kWh/d)	4.021E+04	3.763E+04	4.183E+04
Total (FOE)	3.037E+05	2.913E+05	3.134E+05
Raw Materials for MTBE			
MTBE	1.000E+04	1.840E+05	1.390E+05
Methanol	8.000E+03	5.000E+03	1.000E+03
Total MTBE used	3.400E+04	1.990E+05	1.420E+05

* FOE: fuel oil equivalent.

Sources: Turner, Mason, and Co. (Table F-3, Jan. 8, 1993, draft; Table Y-1, March 30, 1993, draft) and unpublished information.

containing 30% RFG with ethanol, the TM estimates suggest that just 2% of the ether and isobutylene are produced within the refinery. These levels of internal ether production may appear lower than expected, but they are consistent with other process changes within the refinery related to the production of severely reformulated gasoline. Most important is the demand for C₅S for alkylation, which might otherwise have been used for ether production. As the hydrocarbon portion of the RFG is even more severely reformulated to achieve additional VOCs reductions to offset the higher RVP of ethanol-blended RFG, the refinery shifts farther away from internal ether production. Finally, we estimate that 71% of the smaller volume of MTBE produced for use with conventional gasoline in PADD II is produced internally.

No separate runs were performed by TM for the RFG made with ETBE. In this analysis, we assume that the crude oil feedstock for isobutylene used in the production of

ETBE is the same as that for MTBE only. Because the alcohol contents of ETBE and MTBE differ, the crude oil contents of the ethers themselves will differ, as shown in Table 5.

The lowest crude oil content of all the fuels delivering equal energy is calculated to be that of RFG with ETBE, and the next-lowest is that of RFG with MTBE only. The two product mixes that include ethanol use more crude oil feedstock, and the RFG with ethanol only uses the most crude oil feedstock. All five RFGs, of course, reduce crude oil use when compared with that of conventional gasoline.

3.3 PROCESS ENERGY REQUIREMENTS

Estimates of the energy and crude oil required to produce the components of the various gasolines were derived from several sources. This section addresses the production of the individual components first and then discusses the total energy required to produce the final fuels.

3.3.1 Energy and Crude Oil Required to Produce Hydrocarbons

As indicated above, TM refinery LP model runs were used to determine the energy and materials that would be used in the production of various fuels (see Tables A.1 and A.2 in the Appendix). Table 6 provides a summary of the key results. The estimates were used to determine the amounts of energy and oil required to produce HCs. In all the runs for RFG and conventional gasolines, it was assumed that all the plant fuel, natural gas, and electricity used in the refinery were used to produce the HCs for motor gasoline, diesel fuels, and jet fuel; these three fuels represent more than 75% of the products of the refinery. The diesel and jet fuel product volumes were held constant between the various RFG and conventional fuel runs, and all the runs resulted in the production of equal amounts of gasoline energy for vehicular propulsion. Any differences in the energy and oil required per gallon of HCs produced are attributed to the different processing requirements of the various RFGs. The results of the analysis of these runs are presented in Table 7. Some very small shifts in other products occurred, but these are not accounted for in this analysis.

The energy required to produce the HCs used in the mixed RFG pool is greater than for those used in the RFG with MTBE only, because the HCs must be more severely processed to achieve the incremental VOCs reductions needed to offset the VOCs increase associated with ethanol use. Ethanol has a higher blending RVP than MTBE, which, if no other adjustments are made, increases the VOCs level of the final fuel. Additional processing of the HC components is required to achieve a lower RVP level and maintain the same overall VOCs level.

No separate runs for RFG with ethanol only were made. The HCs in this RFG would have to be even more severely processed than those in the mixed RFG pool, and additional measures taken as well, to produce an RFG that maintained the required VOCs reduction.

**TABLE 7 Calculation of Refinery Fuel Used to Produce HCs
(LP Runs Only)**

Production/Consumption	Base Case, No CAAA (Case Q9)	100% RFG, MTBE Only (Case S6)	100% RFG, 30% ETOH (Case S13H)
HCs Produced			
Total HCs			
Bbl/d	2.535E+06	2.400E+06	2.434E+06
gal	1.065E+08	1.008E+08	1.022E+08
Diesel/jet only			
Bbl/d	8.870E+05	8.870E+05	8.870E+05
gal	3.725E+07	3.725E+07	3.725E+07
Gasoline only			
Bbl/d	1.648E+06	1.513E+06	1.547E+06
gal	6.923E+07	6.353E+07	6.497E+07
Total Energy in Plant Fuel Burned to Produce HCs (Btu)			
Total HCs	1.433E+12	1.153E+12	1.248E+12
Diesel/jet only ^a	5.015E+11	5.015E+11	5.015E+11
Gasoline only	9.319E+11	6.516E+11	7.461E+11
Unit Energy in Plant Fuel Burned to Produce HCs			
Total HCs (Btu/gal produced)	1.346E+04 ^b	-	-
Diesel/jet only ^a (Btu/gal produced)	1.346E+04 ^b	1.346E+04	1.346E+04
Gasoline only			
Btu/gal produced	1.346E+04 ^b	1.026E+04	1.148E+04
Btu/Btu HC produced	0.118	0.090	0.100
Total Energy Used in Refineries to Produce HCs (Btu)			
Total HCs	1.888E+12	1.811E+12	1.948E+12
Diesel/jet only ^a	6.605E+11	6.605E+11	6.605E+11
Gasoline only	1.227E+12	1.150E+12	1.288E+12
Unit Energy Used in Refineries to Produce HCs			
Total HCs (Btu/gal produced)	1.773E+04 ^b	-	-
Diesel/jet only ^a (Btu/gal produced)	1.773E+04 ^b	1.773E+04	1.773E+04
Gasoline only			
Btu/gal produced	1.773E+04 ^b	1.811E+04	1.982E+04
Btu/Btu HC produced	0.155	0.158	0.173

^a Energy in plant fuel burned, natural gas, and electricity to produce diesel and jet fuel is held constant across runs.

^b Energy in plant fuel burned, natural gas, and electricity to produce HCs in conventional gasoline is assumed to be the same for gasoline, diesel fuel, and jet fuel.

We assume that the increased energy required to produce such HCs (over the HCs for the base RFG with MTBE) would be approximately three times the difference between the energy production requirements of the pool (which is 30% ethanol) and the base RFG. The results obtained when this assumption is made are shown in Table 8. We make the same assumption for the plant fuel share of the total energy production requirements.

Alternatively, the use of ETBE in RFG allows the refiner to use higher-RVP HCs (approximately 0.5 higher RVP), because ETBE has a substantially lower blending RVP than does MTBE. Use of these higher-RVP HCs should, at a minimum, result in lower plant fuel requirements, because the lighter (higher-RVP) components can be used rather than requiring additional processing to obtain lower-RVP components. No refinery LP model runs for RFG with any ETBE mix were made, but an estimate of the energy required to produce HCs for RFG with ETBE was derived by examining the energy required to produce two RFGs with a 0.4-RVP delta in their gasoline pool properties; the RVPs of the gasolines examined are 7.2 and 6.8. The energy required to produce these RVPs may be greater than needed for this analysis, but the focus is on the *difference* between the two. We estimate a difference of 250 Btu per gallon of HC produced. The TM runs examined were Case VLQ40 V. Low and Case LQ40 Low (see Tables A.3 and A.4 in the Appendix). PADD III runs were used in this analysis because similar runs were not made for PADD II. Use of a 0.4-RVP delta rather than 0.5 RVP slightly understates this potential benefit of the use of ETBE.

Table 8 presents summary estimates for all four RFGs, plus conventional gasoline. It shows that more total energy is required, in general, to produce each HC used in RFGs. There is considerable variation among the RFGs, the energy requirement for RFG made with ethanol being much higher than that for RFG made with ethers.

TABLE 8 Plant Fuel Burned and Other Purchased Fuels to Produce HCs

Fuels	Energy in Plant Fuel Burned, Natural Gas, and Electricity to Produce HCs (Btu/Btu HC produced)	Energy in Plant Fuel Burned to Produce HCs (Btu/Btu HC produced)
Base Case	0.155	0.118
RFG with MTBE Only	0.158	0.090
RFG with 70% MTBE and 30% ETOH	0.173	0.100
RFG with ETBE Only	0.156	0.087
RFG with ETOH Only	0.208	0.125

Some energy and crude oil will be required to make the isobutylene for ether produced within the refinery. We have implicitly included that energy requirement in this calculation of energy needed to produce HCs for RFG. To avoid doublecounting in the estimate of the energy required to produce ethers for RFG (which includes ether production, both internal and external to the refinery), we subtract an estimate of that internal energy use.

3.3.2 Energy and Crude Oil Required to Produce MTBE

Table 9 presents estimates of the energy and crude oil required to produce MTBE. These estimates are based on a report by Chem Systems, Inc. (1992), which provides estimates of the amount of plant energy required for various MTBE production processes. We assume use of the process in which MTBE is produced from field butanes (see Table A.5 in the Appendix). Feedstock for the plant energy and feedstock for the butanes and methanol are estimated on the basis of the Chem Systems report and a report on greenhouse gas emissions by DeLuchi (1991).

We assume that the energy ratio of natural gas feedstock to methanol produced is 1.5:1. The Chem Systems report suggests a lower ratio, but the one we are using is consistent with sources cited by DeLuchi. We assign all the ether plant energy use to the production of the ether; we do not account for the fuel-gas by-products that are also produced. Finally, we assume that the energy required to produce the field butanes and natural gas used in the system is negligible.

As indicated above, some MTBE will be produced within the oil refinery. Table 10 presents the final energy requirements to produce MTBE, as a weighting of the energy required to produce MTBE within the refinery (and thus, without MTBE plant energy) and the energy required to produce MTBE in the MTBE plant.

3.3.3 Energy and Crude Oil Required to Produce Ethanol

The energy requirements for corn and ethanol production are derived from a paper by Marland and Turhollow (1991) that provides estimates of the energy and crude oil required to produce ethanol without accounting for by-products of the ethanol production process. However, Marland and Turhollow also provide estimates of the CO₂ emissions associated with ethanol production that do account for by-products. We examined the latter estimates in order to account for by-products in this analysis of the energy and crude oil associated with ethanol production. Turhollow (1993) has indicated that the proportion of gross CO₂ emissions that Marland and Turhollow (1991) had assigned to by-products could also be applied to the energy and crude oil use associated with the production of ethanol.

TABLE 9 MTBE Production Field Butanes (500,000 metric ton/yr capacity)

Utility or Feedstock Input	Enthalpy of Steam (Btu/lb steam)	Units per Metric Ton MTBE	Energy Costed (10 ⁶ Btu/ unit input)	Energy to Produce Feedstock (10 ⁶ Btu/ unit input)	Total Energy Input		Plant Energy Only (Btu/gal MTBE)	Feedstock for Plant Energy Only (Btu/gal MTBE)	Feedstock for Field Butanes and MECH Only (Btu/gal MTBE)	Total Energy to Produce Only (Btu/gal MTBE)	Fuel Type for Production Energy
					10 ⁶ Btu/ metric ton	Btu/gal MTBE					
Steam, 600 psi (ton)	1,380	0.67	2.780	0.585	2.24	6,314	6,209	1,106	-	1,106	Natural gas
Electricity (kWh)	NA	40.56	0.003	0.007	0.42	1,170	390	780	-	780	All fuel sources
Natural Gas (10 ⁶ kcal)	NA	0.07	3.968	-	0.28	782	782	0	-	0	Natural gas
Field Butanes (metric ton)	NA	0.7655	42.957	-	32.86	97,630	-	-	0	0	Natural gas
Methanol (metric ton)	NA	0.3659	18.776	9.389	10.30	29,024	-	-	9,675	9,675	Natural gas
Total						129,920	8,381	1,886	9,675	11,659	

Source: Chem Systems (Table A4-40, 1992); DeLuchi (Table J-1, 1991).

TABLE 10 Weighted Energy Requirements for Ether Production

Fuel/Oxidant	Energy Required per Btu of Ether Produced (Btu)	
	Energy	Oil
MTBE Only in RFG	0.187	0
MTBE Used with Ethanol in Mixed RFG Pools	0.190	0
MTBE in CG	0.143	0
ETBE Only	0.326	0.024

Turhollow has provided two sets of estimates for the allocation of by-product credits: one derived by using the displacement method and one by using the value method. The displacement method is generally more accepted than the value method (Turhollow 1993) and more appropriate for an energy-based analysis. We use the displacement method. We estimate that 11% of the energy and crude oil estimated to be required to produce ethanol should be assigned to the production of by-products. Consequently, we estimate that for every Btu of ethanol produced, approximately 0.8 Btu is required to produce it, and one-tenth of that energy is based on the use of crude oil (see Table 11).

The Marland and Turhollow estimates are representative of current industry best practice. Ethanol produced to meet incremental RFG demand may be nearer to industry average, and thus more energy-intensive, than indicated here.

3.3.4 Energy and Crude Oil Required to Produce ETBE

We adapted the MTBE production process to develop estimates of the ETBE production process (Table 12). This process may slightly understate ETBE process energy, because additional distillation steps are required in ETBE production to achieve the required water removal. The major adaptation is the substitution of the energy required to produce ethanol for that required for methanol. As with MTBE, we assume that some ETBE will be produced within the refinery and some outside. The weighted estimate of the energy required to produce the ETBE is also given in Table 10.

3.3.5 Energy and Crude Oil Required to Produce Fuels

Columns 8 and 9 of Table 2 provide the final estimates of the energy and crude oil required to produce the various RFGs and conventional gasolines.

TABLE 11 Energy Required to Produce Ethanol Only, Higher Heating Value

By-Products	Energy Content of Ethanol (Btu/gal)	Energy Required to Produce Ethanol			
		Btu/gal		Btu/Btu ETOH Produced	
		Energy	Oil Only	Energy	Oil Only
Accounted for	84,186	65,547	6,292	0.779	0.075
Not Accounted for	84,186	73,814	7,086	-	-

Source: Marland and Turhollow (1991).

3.4 TOTAL ENERGY AND CRUDE OIL REQUIRED (at 2.1% Oxygen)

Columns 10 and 11 of Table 2 give the estimates of the total energy required to deliver equal energy for propulsion by using year 2000 RFG (at 2.1 % oxygen). If RFG used with MTBE is the base fuel, the results presented in this table and Table 3 indicate that the least energy-intensive of the RFG options is RFG with MTBE only. RFG with ETBE and the mixed RFG pools require approximately 1.3-2.0% more energy. RFG with ethanol requires nearly 6% more total energy. The least crude oil used to deliver equal energy for propulsion is with RFG with ETBE: 1.8% less than the base RFG. The mixed RFG pools increase the use of crude oil over the base by 2.1-2.5%. RFG with ethanol increases crude oil use by more than 9%. All these RFGs require more total energy than conventional gasoline, but all use less crude oil than conventional gasoline.

3.5 RFGs PRODUCED IN 1995

The analysis reported above has focused on year 2000 RFGs. We also developed an approximation of the differences in energy and crude oil required to produce RFGs in 1995, because the EPA rulemaking also affects these RFGs. Only two RFGs are examined: (1) RFG with MTBE only and (2) a mixed RFG pool with ethanol and MTBE. We focused on the *differences*, rather than on the totals, because we lacked the refinery LP model runs needed to provide a complete characterization of the materials used in or to produce the 1995 RFGs.

We analyzed only the effects of the difference in RVP of the HCs used in these RFGs. To accommodate the increase in RVP associated with the use of ethanol, the RVP of the HCs in the mixed RFG pool would have to be 0.3 RVP lower than the RVP of the RFG with MTBE only. In the analysis of the energy required to produce RFG with ETBE (reported above), we estimated that a 0.4-RVP increase in the RVP of HCs used with ETBE (over HCs used in another RFG) would mean a reduction in energy (and crude oil) requirements of 250 Btu per gallon of HC produced. We use this same estimate here, but in reverse. A 0.3-RVP decrease is estimated to require an increase of 190 Btu per gallon of HC produced.

TABLE 12 ETBE Production, Adapted from MTBE Production

Utility or Feedstock Input	Enthalpy of Steam (Btu/lb steam)	Units per Metric Ton ETBE	Energy Content (10 ⁶ Btu/unit input)	Energy to Produce Feedstock (10 ⁶ Btu/unit input)	Total Energy Input		Plant Energy Only (Btu/gal ETBE)	Feedstock for Plant Energy Only (Btu/gal ETBE)	Feedstock for Field Butanes and MEOH Only (Btu/gal ETBE)	Total Energy to Produce Feedstock Only (Btu/gal ETBE)	Fuel Type for Production Energy
					10 ⁶ Btu/metric ton ETBE	Btu/gal ETBE					
Steam, 600 psi (ton)	1,380	0.67	2.780	0.585	2.24	6,386	5,268	1,118	-	1,118	Natural gas
Electricity (kWh)	NA	40.56	0.003	0.007	0.42	1,183	394	789	-	789	All fuel sources
Natural Gas (10 ⁶ kcal)	NA	0.07	3.968	-	0.28	791	791	0	-	0	Natural gas
Field Butanes (metric ton)	NA	0.69	42.957	-	29.64	84,446	-	-	0	0	Natural gas
Ethanol (metric ton)	NA	0.425	25.198	19.619	19.05	54,266	-	-	23,755	23,755	9.6% oil
Total						147,072	6,454	1,906	23,755	25,662	

Source: Adapted from Table 9.

Factoring this increase in the energy and crude oil required to produce HCs into our calculations of total energy and crude oil required to produce the mixed RFG pool, we found that the pool would require 0.8% more total energy to deliver equal VMT and 2.0% more total crude oil than the RFG with MTBE only. These impacts are slightly less than for the same mixed RFG pool in 2000, which is consistent with the additional severity of the reformulation required in 2000.

4 ENERGY AND CRUDE OIL REQUIRED TO PRODUCE GASOLINE OXYGENATED AT 2.7% LEVEL

Tables 13 and 14 provide estimates of the energy and crude oil required to produce gasoline with a 2.7% oxygen content by weight. This oxygen-content level is required in CO nonattainment areas for a portion of the year (typically four to five months). Areas requiring the use of RFG year-round will require that the oxygen-content level of the RFG be raised during these months (CO control program RFG). Areas not using RFG will simply require CO control program oxygenated gasoline (OG). Averaging of gasolines with higher and lower oxygen-content levels is permitted, so long as the 2.7% level is maintained.

The estimates presented in Tables 13 and 14 are derived from the estimates for gasolines produced with a 2.1% oxygen content level, which are discussed in Section 3. No separate refinery LP model runs were conducted to develop these estimates. The only difference assumed between the RFGs with 2.1% oxygen content and those with 2.7% oxygen content is the proportion of the oxygenates and HCs in the final fuel. The energy required to produce each "HC Btu" and "oxygenate Btu" is assumed to be the same as for the RFG with 2.1% oxygen content.

For a given oxygenate, the volume of oxygenate required to achieve the 2.7% oxygen-content level is the same whether the gasoline is an RFG or an OG. The energy required to produce the HC portion differs, however. We assume that the energy required to produce the HCs in OG is not significantly different than that required to produce HCs in conventional gasoline, as estimated in Tables 7 and 8. In reality, the HCs in OG tend to be 2-3 octane numbers lower than the HCs in conventional gasoline, to take advantage of the high blending octane of the oxygenates. Thus, there should be some effect on the energy required to produce these lower-octane HCs, but we have not accounted for that effect.

Tables 13 and 14 indicate that OGs have lower energy requirements than do their counterpart CO control program RFGs, but the former also use more crude oil. RFG or OG made with ethanol has greater energy and crude oil use requirements than has RFG or OG made with either ether. Ethanol blends currently used (e.g., 10% ethanol) increase total energy use by 3.2% and total crude oil use by 5.8% with respect to CO control program RFG with MTBE. As before, all the fuels presented require more total energy but less crude oil for their production than does conventional gasoline.

TABLE 13 Fuel Volumes and Energy Content for 2.7% RFG

Fuel Type	Compo- nents	Initial Volume (gal)	Energy Content of Initial Volume (Btu)	Revised Volume to Deliver Equal Btu as RFG with MTBE Only at 2 1/2% O ₂ (gal)	Revised Energy Content of Fuel (Btu)	Oil Content of Equal-Btu RFG (Feedstock) (Btu)	Energy Required to Produce Equal-Btu RFG (Btu)	Oil Required to Produce Equal-Btu RFG (Btu)	Total Energy Required to Deliver Equal-Btu RFG (Btu)	Total Oil Required to Deliver Equal-Btu RFG (Btu)
RFG with MTBE at 2.7% O ₂	HCs	0.850	97,325	0.855	97,936	97,936	15,489	8,773	113,425	106,709
	MTBE	0.150	14,029	0.151	14,117	838	2,638	0	16,753	838
	Total	1.000	111,354	1.006	112,053	98,774	18,125	8,773	130,178	107,546
RFG with ETBE at 2.7% O ₂	HCs	0.829	94,921	0.833	95,396	95,393	14,879	8,337	110,275	103,733
	ETBE	0.171	16,574	0.172	16,657	861	5,438	392	22,093	1,253
	Total	1.000	111,495	1.005	112,053	96,257	20,315	8,729	132,369	104,986
RFG with Ethanol at 2.7% O ₂	HCs	0.923	105,667	0.927	106,187	106,187	22,038	13,268	128,225	119,455
	ETOH	0.077	5,837	0.078	5,866	0	4,667	438	10,433	438
	Total	1.000	111,505	1.005	112,053	106,187	26,605	13,706	138,659	119,893
Oxygenated Gasoline with MTBE at 2.7%	HCs	0.850	97,325	0.855	97,936	97,936	15,164	11,514	113,100	109,450
	MTBE	0.150	14,029	0.151	14,117	838	2,638	0	16,753	838
	Total	1.000	111,354	1.006	112,053	98,774	17,800	11,514	129,853	110,287
Oxygenated Gasoline with ETBE at 2.7%	HCs	0.829	94,921	0.833	95,396	95,396	14,771	11,215	110,167	106,611
	ETBE	0.171	16,574	0.172	16,657	861	5,438	392	22,093	1,253
	Total	1.000	111,495	1.005	112,053	96,257	20,207	11,607	132,260	107,864
Oxygenated Gasoline with ETOH at 2.7%	HCs	0.923	105,667	0.927	106,187	106,187	16,442	12,484	122,829	118,671
	ETOH	0.077	5,837	0.078	5,866	0	4,667	438	10,433	438
	Total	1.000	111,505	1.005	112,053	106,187	21,099	12,922	133,963	119,109
Oxygenated Gasoline with ETOH at 3.5%	HCs	0.900	103,050	0.912	104,388	104,388	16,163	12,272	120,651	116,650
	ETOH	0.100	7,567	0.101	7,665	0	5,968	573	13,633	573
	Total	1.000	110,617	1.013	112,053	104,388	22,131	12,845	134,186	117,233

**TABLE 14 Relative RFG and OG
Volumes and Energy Content^a**

Fuel Type	Total Energy Use ^b	Total Oil Use ^b
RFG with MTBE at 2.7% O ₂	1.001	0.970
RFG with ETBE at 2.7% O ₂	1.018	0.947
RFG with Ethanol at 2.7% O ₂	1.066	1.082
OG with MTBE at 2.7% O ₂	0.998	0.995
OG with ETBE at 2.7% O ₂	1.017	0.973
OG with Ethanol at 2.7% O ₂	1.023	1.075
OG with Ethanol at 3.5% O ₂	1.032	1.058

^a Based on last two columns of Table 13.

^b Compared with RFG with MTBE at
2.1% O₂ (base case).

5 CONCLUSIONS

The analysis discussed in this report indicates that RFG requires more energy but less crude oil for its production than does conventional gasoline. The least energy-intensive of the RFG options is RFG with MTBE only. If RFG with MTBE is taken as the base fuel, RFG with ETBE and the mixed RFG pools with MTBE and ethanol (which would fulfill the EPA's February 1993 RFG NPRM) require approximately 1.3-2.0% more total energy than does the base. RFG with ethanol requires nearly 6% more total energy.

RFG with ETBE uses the least crude oil to deliver equal energy for propulsion: 1.8% less than that for the base RFG. The mixed RFG pools increase the use of crude oil over the base by 2.1-2.5%. Production of RFG with ethanol alone increases crude oil use by more than 9%.

Use of oxygenates at a 2.7% level in the CO control programs does not alter the direction of these results. CO control program OGs have lower total energy requirements than their counterpart CO control program RFGs, but the former also use more crude oil.

The specific impetus for this report was an EPA proposal that would allow RFG blended with ethanol to meet a lesser VOCs reduction standard than RFGs with other oxygenates. If implemented, the proposal would cause increased energy use of 1.8 to 2.0%, depending on the oxygen level (2.1% or 2.7%) achieved with the ethanol portion of the mixed RFG pool. Crude oil use would increase by 2.1 to 2.5%.

The results reported here are based on a number of assumptions and are focused on RFGs produced in one area of the country. Clearly, making changes in the assumptions would change the specific estimates calculated. However, we believe that the general trend of the results is likely to remain the same across regions and with all but drastic changes in production process assumptions.

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APPENDIX:

Selected Reference Materials Used in the Analysis
of the Energy Requirements for RFG ProductionTABLE A.1 Refining Raw Material and Product Rate — MBPCD
IIC — Summer 1995/2000 F2 — SF and 4/92 CF Case Results NPC 1991-92
Study of U.S. Refining Industry

Raw Materials	Base Case Q9 No PCAA	Case S6 '95 Pull Opt In	Base Case Q9 Target Δ V.O.C	Case S6 Q9 + 100% RFG	Case S6 + HI StOH	Case S11H S13 + 96 Δ V.O.C.
Raw Materials						
Domestic - S	1,223	1,223	1,965	1,965	1,965	1,965
HL	371	371	174	174	174	174
HH	226	226	692	692	692	692
Foreign - S	256	278	732	732	732	780
HL	186	172	669	669	669	669
HH	1,752	632	1,531	1,500	1,517	1,385
Subtotal Crudes	2,997	2,902	2,932	2,826	2,863	2,904
MTBE	10	88	100	184	127	139
Ethanol					30	30
Normal Butane	17	10				
Isobutane	22	33	38	40	49	53
Natural Gas to HZ Plant Feed	5	5	5	5	11	5
Methanol	8	8	4	5	5	1
Other Raw Materials	102	102	102	102	102	102
Total Raw Materials	3,162	3,148	3,178	3,163	3,187	3,234
Products						
Motor Gasolines						
Conventional	1,682	750	752			
Oxygenated						
Reformulated/Oxygenated		960	946	1,713	1,196	1,206
CARB2					514	
Kero Jet/Kerosene	206	206	206	206	206	206
Diesel/No. 2 Fuels						
Diesel - LA, ULS						
Diesel - 0.06% S	580	580	580	580	580	580
No. 2 Fuel	102	102	102	102	102	102
No. 6 Fuel (1% Sul)	14	14	14	14	14	14
No. 6 Bunker	11	11	11	11	11	38
Marketable Coks - 400#	60	54	59	52	55	81
Catalytic Coks - 400#	32	50	50	49	50	60
Vacuum Gas Oil						
Benzene	2	2	2	2	2	2
Toluene	5	5	5	5	5	3
Heavy Aromatic Gases						
Pentanes to P/C						
Natural Gasoline to P/C	38	38	38	38	37	38
Normal Butane			24	25	30	34
Isobutane						
Propane	98	92	94	86	90	92
Process Gas/C2/C2+POE	162	138	144	120	122	135
Other Products	271	271	271	271	271	271
(Gain/Loss)	(120)	(114)	(118)	(107)	(109)	(106)
Total Products	3,162	3,148	3,178	3,163	3,187	3,234
Crude Properties						
Gravity, °API	33.8	34.2	34.1	34.3	34.3	34.2
Sulfur, Wt%	1.18	1.11	1.14	1.09	1.11	1.13
Gasoline Demand Increase, % [1]						
Baseline		1.1	0.9	1.8	1.8	2.1
Target		1.1	0.8	1.9	1.9	2.1

[1] To maintain constant miles traveled with lower BTU content reformulated gasolines.

Source: Turner, Mason, and Co., NPC Refining Study (Table F-3, Jan. 8, 1993, draft).

TABLE A.2 Energy Balance Impacts of Ethanol at Constant Δ VOC — PADD II Summer 2000 Cases S13H vs S6(1) NPC 1991 — 93 Study of U.S. Refining Industry

	MBPCD			BFOE/ Liq B	MBPCD FOE
	S6	S13H	Δ		
Products					
Gasolines					
RFG-E		512.0	512.0	0.746	382.0
RFG-M	1,712.7	1,204.7	(508.0)	0.752	(382.0)
Subtotal		1,716.7	4.0		0.0
	1,712.7				
Bunker	11.0	37.8	26.8	1.00	26.8
Marketable Coke, FOE	51.8	61.1	9.3	1.00	9.3
Petrochem. Gaso.	32.1	35.2	3.1	0.69	2.1
Toluene	5.0	3.0	(2.0)	0.84	(1.7)
NC4	24.9	33.7	8.8	0.68	6.0
Propane	80.0	86.0	6.0	0.60	3.6
Plant Fuel Burned, FOE	185.5	200.7	15.2	1.00	15.2
Loss (Gain)	(104.4)	(105.2)	(0.8)		0.0
Other	1,164.6	1,164.6	0.0		0.0
Total		3,233.6	70.4		
	3,163.2				61.3
Raw Materials					
Crude	2,826.4	2,904.4	78.0	0.92	71.8
IC4	40.4	53.2	13.2	0.65	8.6
MTBE	184.3	138.8	(45.5)	0.62	(28.2)
Methanol	5.4	0.6	(4.8)	0.62	(1.8)
Ethanol		29.4	29.4	0.38	15.0
Nat. Gas to H2 Plant	5.1	5.2	0.1	0.51	0.1
Other	102.0	102.0	0.0	1.00	0.0
Total		3,233.6	70.4		65.5
	3,163.2				
Net Inputs (Raw Mat less Prod)					4.2
Utilities					
Nat. Gas Purch, FOE	68.2	70.9	2.7	1.00	2.7
Elec., M/MkWh/d	23.3	25.9	2.6	1.60	4.2
Plant Fuel Burned, FOE					15.2
Total Utilities Used					22.1
Lost Energy					
Total Net Inputs plus Utilities, FOE					26.3
Percent of Energy in Gasolines [2]					6.9%
Percent of Energy in Ethanol [3]					175%

[1] S13H VOC Reduction = 41% based on 4/92 EPA CF. Gasoline pool = 30% RFG-E + 70% RFG-M
S6 VOC Reduction = 41% based on 4/92 EPA CF. Gasoline pool = 100% RFG-M.

[2] 26.3 MBPCD FOE lost/382 MBPCD FOE in gasoline switched from RFG-M to RFG-E.

[3] 26.3 MBPCD FOE lost/15 MBPCD FOE in Ethanol used.

Source: Turner, Mason, and Co., NPC Refining Study (Table Y-1, March 30, 1993, draft).

TABLE A.3 Run Basis and Reformulated Gasoline Pool Properties IIIC — Summer 2000 F2 — 4/92 CF Case Results NPC 1991-92 Study of U.S. Refining Industry

Gasoline Spec ^a	Base Case Q6 Target Δ V.O.C.	Base Case Q6N = Q6+ Δ Cap. Chg.	Case VLQ40 V. Low Δ V.O.C.	Case LQ40 Low Δ V.O.C.	Case HQ40 High Δ V.O.C.	Case QN2 Q6N + 10.7% OL
Aromatics, Vol. %, Maximum Avg.						
Oxygen, Wt%, Minimum Avg.	2.1	2.1	2.1	2.1	2.1	2.1
Olefins, Vol. %, Maximum Avg.						10.7
Benzene, Vol. %, Maximum Avg.	0.7	0.7	0.7	0.7	0.7	0.7
Sulfur, WPPM, Maximum Avg.						
Reid Vapor Pressure, PSI, Min	6.5	6.5	6.5	6.5	6.5	6.5
Reid Vapor Pressure, PSI, Max						
Regulatory Cap						
T50, °F, Maximum Avg.						
T90, °F, Maximum Avg.						
V.O.C., % Reduction	45	45	35	40	48	45
T.A.P., % Reduction	30	30	30	30	30	30
% Class C, Fixed	40	40	40	40	40	40
Ethers, % Pool Purchased (Sold) Manufactured						
Gasoline Pool Properties (R+M)Z Octane, Clear ^a	88.6	88.6	88.6	88.6	88.6	88.6
Aromatics, Vol. %	24.7	23.7	24.1	23.8	23.1	24.0
Ethers, Vol. %	11.7	11.7	11.7	11.7	11.7	11.7
Oxygen, Wt. %	2.1	2.1	2.1	2.1	2.1	2.1
Olefins, Vol. %	11.6	10.7	13.0	12.3	9.7	10.7
Benzene, Vol. %	0.7	0.7	0.7	0.7	0.7	0.7
Sulfur, WPPM	144	141	171	173	76	137
Reid Vapor Pressure, PSI	6.5	6.5	7.2	6.8	6.5	6.5
Temperature at V/L = 20, °F	149	149	145	147	148	149
Distillation						
T10, °F	136	134	126	130	133	133
T50, °F	205	203	200	201	201	204
T90, °F	344	342	344	346	325	344
Specific Gravity	0.746	0.7444	0.7433	0.7438	0.7404	0.7450
Heat Content, MBTU/G	112.1	112.0	111.7	111.8	111.7	112.0
V.O.C., gm/mile ^a	0.71	0.71	0.83	0.77	0.67	0.71
- % Reduction	45	45	35	40	48	45
NO _x index	0.97	0.97	0.99	0.98	0.95	0.96
- % Reduction	3	3	2	2	5	4
T.A.P., mg/mile	35	34	37	36	31	35
- % Reduction	33	35	31	38	31	35

^a Input limit.

Source: Turner, Mason, and Co. (Table D1-1A, 1993).

TABLE A.4 Refining Raw Material and Product Rates — MBPCD IIIC — Summer 2000 F2 — 4/92 CF Case Results NPC 1991-92 Study of U.S. Refining Industry

Raw Materials	Base Case Q9 No PCAAA	Base Case Q6 Target Δ V.O.C.	Base Case Q6N - Q6 Δ Cap. Chg.	Case VLQ40 V. Low Δ V.O.C.	Case LQ40 Low A V.O.C.	Case HQ40 High Δ V.O.C.	Case QPC Q6N - 16.7 % Oil
Raw Materials							
Domestic - B	1,965	1,965	1,965	1,965	1,965	1,965	1,965
FL	174	174	174	174	174	174	174
HH	692	692	692	692	692	692	692
Foreign - S	733	733	733	733	733	733	733
HL	699	699	696	699	699	699	699
HR	1,648	1,636	1,531	1,500	1,517	1,385	1,484
Subtotal Crudes	6,900	5,788	5,783	5,752	5,769	5,696	5,748
MTBE	3	132	141	152	153	282	149
Ethanol							
Normal Butane							
Isobutane	54	48	46	48	46	81	61
Natural Gas to H2	20	24	24	24	24	27	24
Plant Fee							
Methanol	21	35	32	29	29	32	21
Other Raw Materials	447	447	447	447	447	447	447
Total Raw Materials	5,445	5,472	5,473	5,449	5,466	5,555	5,453
Products							
Motor Gasolines							
Conventional	3,151	1,177	1,173	1,177	1,176		1,176
Oxygenated							
Reformulated/Oxygenated		2,008	2,009	2,015	2,014	1,221	1,009
Reformulated							
CARE2							
Kero Jet/Kerosene	686	686	686	686	686	686	686
Diesel/No. 2 Fuel							
Diesel - LA, ULS							
Diesel - 0.05% S	940	940	940	940	940	940	940
No. 2 Fuel	283	283	283	283	283	289	288
No. 6 Fuel (1% Sulf)	57	57	57	57	57	57	57
No. 6 Bunker	57	57	57	57	57	57	57
Marketable Coke - 400#	180	174	174	172	173	168	172
Catalytic Coke - 400#	97	95	94	94	94	89	90
Vacuum Gas Oil							
Benzene	21	21	21	21	21	21	21
Toluene	25	25	25	25	25	25	25
Heavy Aromatic Gas							
Pentanes to P/C							
Natural Gasoline to P/C	134	134	134	134	134	135	134
Normal Butane	22	22	22	20	20	24	22
Isobutane	12	24	13	27	28	13	13
Propane	151	144	144	142	144	144	145
Process Gas/C2/C2+ FOE	365	328	337	334	337	323	322
Other Products	576	576	576	576	576	576	576
(Gain/Loss)	(318)	(317)	(311)	(316)	(320)	(264)	(262)
Total Products	6,445	6,472	6,473	6,449	6,466	6,555	6,453
Crude Properties							
Gravity, °API	32.8	32.9	32.9	32.9	32.9	33.0	32.9
Sulfur, Wt%	1.20	1.17	1.18	1.17	1.17	1.13	1.17
Gasoline Demand Increase, %/11							
Baseline		1.1	1.0	1.2	1.2	2.2	1.1
Target		1.1	1.0	1.2	1.2	2.1	1.1

[1] To maintain constant miles traveled with lower BTU content reformulated gasoline.

Source: Turner, Mason, and Co (Table D1-3, 1993).

TABLE A.5 Cost of Production Estimate for MTBE

PROCESS: FLOHTBE1		COST OF PRODUCTION ESTIMATE FOR :		MTBE		
PRICES : MTBE1995		PROCESS :		from Field Butanes		
Million Dollars						
Plant Startup	1990	Capital Costs		ORIG	BOOK	REPL
Analysis Date	1995	Battery Limits		226.9	226.9	226.9
Location:	USGC	Offsites		90.7	90.7	90.7
Capacity:	500.00 Thousand MT/yr	Total Fixed Inv.		317.6	317.6	317.6
Operating Rate:	100 percent	Working Capital				27.0
Throughput:	500.00 Thousand MT/yr					
PRODUCTION COST SUMMARY				UNITS	PRICE,	ANNUAL
				PER MT	Dollars /UNIT	Dollars COST HR Dollars Per Gal
RAW MATERIALS	Methanol, metric ton	0.3658	200	73.2	36.58	
	Field Butanes, metric ton	0.7655	193	147.9	73.94	
	Catalyst & Chemicals		4	4.1	2.03	
	TOTAL RAW MATERIALS			225.1	112.56	0.333
BY-PRODUCT CREDITS	Fuel Gas, MM kcal	0.72223	11	(7.6)	(3.80)	(0.021)
	TOTAL BY-PRODUCT CREDITS					
NET RAW MATERIALS				217.5	108.76	0.612
UTILITIES	Power Purchased, KWH	40.56	0.054	2.2	1.10	
	Cooling Water, M kg	179.31	0.025	4.5	2.23	
	Steam (Gas), 600 psig, ton	0.67	12.088	8.1	4.05	
	Natural Gas, MM kcal	0.07	10.516	0.8	0.38	
	TOTAL UTILITIES			15.5	7.76	0.044
	VARIABLE COST OF PRODUCTION			233.0	116.52	0.655
DIRECT CASH COSTS	Labor, 32 Men	33.83	Thousand Dollars	2.3	1.15	
	Foremen, 14 Men	40.63	Thousand Dollars	1.1	0.57	
	Super., 3 Men	49.07	Thousand Dollars	0.3	0.15	
	Maint., Material & Labor	4.00	% of ISBL	18.1	9.07	
	Direct Overhead	4.5	% Labor & Supervision	1.7	0.84	
	TOTAL DIRECT CASH COSTS			23.6	11.78	0.066
ALLOCATED CASH COSTS	General Plant Overhead	65	% Labor & Maintenance	14.2	7.11	
	Insurance, Property Tax	1.5	% Total Fixed Investment	9.5	4.76	
	TOTAL ALLOCATED CASH COSTS			23.7	11.87	0.067
	FULL CASH COST OF PRODUCTION			280.3	140.17	0.788
NONCASH ALLOCATIONS	Depreciation	10 Years for OSBL		18.1	9.07	
		10 Years for ISBL		45.4	22.69	
	NET COST OF PRODUCTION			343.9	171.93	0.967
	COST PLUS	10 % RETURN ON TOTAL BOOK INV. PLUS MC		412.8	206.39	1.161
	COST PLUS	20 % RETURN ON TOTAL BOOK INV. PLUS MC		481.7	240.85	1.333
	COST PLUS	30 % RETURN ON TOTAL BOOK INV. PLUS MC		550.6	275.31	1.549

Source: Chem Systems, Inc. (Table A4.40, 1992).

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June 8, 1994

Mr. Barry McNutt
U.S. Department of Energy
PO-50
1000 Independence Avenue, S.W.
Washington, D.C.

Dear Barry:

As requested, I am submitting revisions, based on comments made by peer reviewers, to two draft analyses of the use of ethanol in reformulated gasoline:

- 1) Energy Requirements and CO₂-Equivalent Emissions of RFG and
- 2) The Impact of the Renewable Oxygenate Proposal on Ethanol Availability for Use as an Oxygenate in RFG, Oxygenated Gasoline and Gasohol.

In the first analysis, I have addressed comments made on the March 17, 1994 analysis and provide revised estimates of the energy, oil use, and CO₂-equivalent emissions implications of the EPA proposal to require renewable sources for 30% of the oxygenates in RFG. In the second analysis, Kevin Stork has also addressed reviewers' comments on his January 1994 analysis. In particular, he has revised the analysis to focus on the effects of a likely RFG opt-in case and has added seasonal and regional analyses. Each attached memo discusses the revisions made.

As we have discussed, we will eventually provide you with a formal ANL technical report incorporating both of the above analyses. That report will contain a more complete documentation of the assumptions used to develop the energy requirements and CO₂-equivalent emissions estimates.

Margaret Singh
Transportation Energy Analyst

Maragret Singh
Argonne National Laboratory
June 6, 1994

Analysis Memorandum: Energy Requirements and CO₂-Equivalent Emissions of RFG

The attached tables (Tables 1-9) present the key results of the revisions made to the original (3/17/94) draft analysis of the total energy, fossil energy, and oil required to deliver equal energy content reformulated gasolines (RFGs), as well as the CO₂-equivalent (CO₂) emissions associated with the production and use of these RFGs. The revisions address the key comments made on the analysis during peer review.

The main comments made by reviewers can be summarized as follows:

- 1) The analysis of the energy and oil input requirements of ethanol and of ethanol CO₂ emissions are based on inconsistent assumptions about ethanol industry practices. For consistency, the same assumptions should be used for the energy, oil and CO₂ estimates.
- 2) Opinions vary over what efficiency should be assumed for ethanol production plants as well as over whether marginal acreage for corn production should be assumed.
- 3) Certain process inefficiencies in the production of MTBE and ETBE are not accounted for.
- 4) Several small technical errors or inconsistencies were identified.
- 5) The methodology and assumptions are not clearly explained.
- 6) The analysis does not account for the impact on energy, oil and CO₂ of the transport of ethanol from the midwest to RFG markets outside the midwest.
- 7) The study does not account for the energy required to construct new ethanol plants.

The revisions presented in this draft address comments #1 - #4. With respect to comment #5, we will attempt to more clearly and completely explain the methodology and assumptions used when we write the full report of this analysis. With respect to comments #6 and #7, we acknowledge that there are effects on energy, oil and CO₂ from transport of ethanol and the construction of new ethanol production plants. However, evaluating the implications of these factors is generally beyond the scope of this study. Distribution of all fuels to the final consumer is included in the CO₂ analysis.

Revision to address comment # 1

In the original analysis, we used a report by Marland and Turhollow to develop estimates of the energy and oil use required in the production of ethanol (1). Marland and Turhollow characterized their base case as current industry "best" practice. We used Delucchi's base case to derive the CO2 estimates (2). Delucchi characterized his base case as current industry "average" practice. In this revised analysis, we use Delucchi's base case throughout. We do so in part because we use Delucchi's greenhouse gas (GHG) emissions model to generate the CO2-equivalent emissions estimates (3). The estimates derived using Delucchi's ethanol estimates are identified in the attached table as the "MAD" estimates (for Mark A. Delucchi).

Revisions to address comment # 2

In order to demonstrate the effect of using alternative estimates of the energy required to produce ethanol, we input into our RFG spreadsheet model and the Delucchi GHG model two alternative sets of estimates of ethanol energy production requirements. First, we input the estimates developed by the U.S. Department of Agriculture of the energy required to manufacture ethanol from corn (4). Delucchi compared his estimates with those of Agriculture and identified where assumptions differed (5). Assumptions differ with respect to the estimated energy requirements for fertilizer, farming, corn transport, and corn-ethanol conversion efficiency. We estimate that the Agriculture estimate of the total energy required to produce ethanol is about 25% lower than Delucchi's. The estimates derived using the Agriculture ethanol estimates are identified in the attached tables as the "AG" estimates .

Second, we used estimates developed by Ho of Amoco (6). Our analysis indicates that the Ho energy production estimates are approximately 22% higher than Delucchi's. We identified the differences in assumptions between the two analyses. Assumptions differ with respect to the energy required for fertilizer, farming, and corn-ethanol conversion. Ho did not include a specific estimate of corn transport energy. We used Delucchi's estimate for that component. The estimates derived using Ho's ethanol estimates are identified in the attached tables as the "HO" estimates.

Revisions to address comment # 3

The Department of Agriculture pointed out that we had not accounted for process losses in the conversion of field butanes to isobutylene and then into ether (7). We have now accounted for the fact that there are inefficiencies in the process and also that fuel gas is created as a byproduct. We estimate an 11% process loss.

Revisions to address comment # 4

In the original analysis, we used both 5.7% ethanol and 6.0% ethanol in our calculation of the amount of ethanol required to achieve a 2.1% oxygen content. In this analysis we use one value only: 6.0%.

We revised the GHG emission factors to account for the fact that Delucchi's model estimates these factors on the basis of the higher heating values of fuels while this analysis uses lower heating values.

We corrected the mathematical error identified by both Agriculture and the American Biofuels Association in the fossil energy content of ETBE in the "summer fuels existing ethanol" case. Note that the correct value was used in the "summer fuels new ethanol" case in the original analysis.

EPA pointed out that we have slightly different estimates of the oil required to produce ethanol for use in ETBE vs. for use as neat ethanol. We have not been able to completely resolve that difference. Our estimates of the energy and oil required to produce ETBE are derived from an adaptation of the MTBE production process. Our adaptation could be somewhat inaccurate. There may be other explanations. We will try to resolve this difference before the full report is complete. In any event, the difference is small. Arbitrarily setting the values to be the same does not change the relationships shown in Table 9.

Results

Tables 1-6 contain revisions of the complete set of tables originally presented in the 3/17/94 analysis. These tables incorporate all the changes discussed above. They assume Delucchi's estimates of the energy and oil required to produce ethanol.

Tables 7 and 8 present estimates comparable to Table 1 but assume Agriculture's (Table 7) and Ho's (Table 8) estimates of the energy and oil required to produce ethanol. Table 9 compares the relative program-wide impacts of various scenarios of ethanol use as estimated using Delucchi's, Agriculture's and Ho's estimates of the energy to produce ethanol. The relative impacts estimated in the 3/17/94 analysis are also presented for comparison's sake.

The original analysis (when corrected for the mathematical error referred to above) estimated that fossil energy use would always be lower with the renewable oxygenate standard (ROS) mandate than with the year round use of MTBE. The same conclusion is derived from all three analyses (Delucchi, Agriculture, and Ho) used here. The greatest decrease estimated is 0.9% using Agriculture's estimates.

The original analysis estimated that oil use would always be higher (0.9% to 3.3%)

with the ROS mandate than with year round use of MTBE. The results are virtually the same whether Delucchi's, Agriculture's, or Ho's estimates of the oil required to produce ethanol are used.

The original analysis estimated that CO₂-equivalent emissions under the ROS mandate would range anywhere from being equal to being 0.4% higher than with year round use of MTBE. The estimates using Delucchi and Ho analysis suggest that the increase could be as high as 0.6%. When the Agriculture analysis of the energy required to produce ethanol is assumed, the greatest possible increase is 0.2%. In no case are the CO₂-equivalent emissions lower (on a relative program-wide basis) than with year-round use of MTBE.

Conclusions

The significance of these results varies with the parameter evaluated. One reviewer made the comment that the few percentage point differences estimated in this analysis do not mean that the impacts of alternative scenarios are really different. Another reviewer essentially termed impacts of less than 1% as trivial. This point, that the analysis has generated estimates of very small differences in the impact of the different oxygenates, is particularly true for the CO₂-equivalent emissions analysis. There are large uncertainties in estimating the CO₂-equivalent emissions of various fuels. This analysis only generates differences on the order of about one-half of one percent or less. From this we have to conclude that there are essentially no differences between the RFGs using various oxygenates in terms of their CO₂-equivalent emissions.

The uncertainty associated with the estimates of oil use and fossil energy is less than that for CO₂. Because the oil use increases associated with the use of ethanol and ETBE are higher than the CO₂ increases (about one to three percent) and because the uncertainty associated with their estimation is less, we attach more significance to the oil use estimates. It is clear that there will be increases in oil use associated with the ROS.

The significance associated with the decrease in fossil energy use is somewhere between the significance associated with the CO₂ results and the oil use results. The uncertainty associated with these results is similar to that for oil, but the percentage decreases associated with the use of ethanol and ETBE only range from about one half to one percent. From this we conclude that there will be a small decrease in fossil energy use with the ROS.

Alternative estimates of the energy and oil required to produce ethanol (e.g., Agriculture and Ho) have small effects on fossil energy use and CO₂-equivalent emissions. However, given the uncertainty issue mentioned above, the impacts of using these alternative estimates in this analysis are very small. These alternative

TABLE 1 - FUEL VOLUMES AND ENERGY CONTENT FOR RFG WITH 2.1% O2 CONTENT (MADE ESTIMATES)
 (ENERGY, OIL & CO2 EQUIVALENT EMISSIONS FOR RFG VOLUMES WHICH CONTAIN THE SAME ENERGY AS RFG WITH MTBE)

FUEL TYPE	COMPO NENTS	ENERGY CONTENT		REVISED ENERGY CONTENT	OIL CONTENT (FEEDSTOCK)	ENERGY REQUIRED TO PRODUCE		OIL REQUIRED TO PRODUCE		TOTAL ENERGY REQUIRED TO DELIVER RFG		TOTAL FOSSIL ENERGY REQUIRED TO DELIVER RFG		TOTAL OIL REQUIRED TO DELIVER RFG		CO2 EQUIVALENT EMISSIONS	
		INITIAL VOLUME	REVISED VOL TO DELIVER EQUAL CONTENT			BTU	GALLONS	BTU	BTU	BTU	BTU	BTU	BTU	BTU	BTU		BTU
SUMMER FUELS ANALYSIS																	
RFG																	
WITH MTBE	HC*	0.883	101142	101142	101142	16890	9060	117138	117138	117138	117138	117138	117138	110202	10735		
AT 2.1% O2	MTBE	0.117	10912	10912	947	3248	0	14158	14158	14158	14158	14158	14158	847	1108		
TOTAL		1.000	112053	112053	101788	18244	8060	131297	131297	131297	131297	131297	131297	110848	11841		
RFG																	
WITH ETBE	HC*	0.867	99272	99272	88175	15468	8667	114843	114843	114843	114843	114843	114843	107842	10487		
AT 2.1% O2	ETBE	0.133	12891	12878	605	6018	367	18897	18897	18897	18897	18897	18897	1023	1436		
(NEW ETOH)		1.000	112163	112053	98840	21487	9025	133540	128004	128004	128004	128004	128004	108865	11823		
RFG																	
WITH ETBE	HC*	0.867	99272	99176	89176	15498	8667	114643	114643	114643	114643	114643	114643	107842	10487		
AT 2.1% O2	ETBE	0.133	12891	12879	605	6018	367	18897	18897	18897	18897	18897	18897	1023	1436		
(EXISTING ETOH)		0.060	4540	4538	0	3881	376	8527	3881	8527	3881	8527	3881	376	607		
	CG	0.040	4540	4538	4636	702	533	5238	533	5238	5238	5238	5238	5088	478		
TOTAL		0.980	112163	112053	104376	18198	8181	130251	130251	130251	130251	130251	130251	113557	11785		
CG IN PADD II																	
WITH MTBE	HC*	0.960	112210	112210	110216	17066	12967	127282	127282	127282	127282	127282	127282	123173	11632		
AT 2.1% O2	MTBE	0.020	1871	1837	1032	467	0	2305	2305	2305	2305	2305	2305	1032	186		
TOTAL		1.000	114081	114081	112053	17533	12857	129588	128568	128568	128568	128568	128568	124205	11816		
WINTER FUELS ANALYSIS																	
RFG																	
WITH MTBE	HC*	0.883	101142	101142	101142	13272	7660	114414	114414	114414	114414	114414	114414	108002	10243		
AT 2.1% O2	MTBE	0.117	10912	10912	0	3303	0	14215	14215	14215	14215	14215	14215	0	1108		
TOTAL		1.000	112053	101142	101142	16575	7660	128828	128828	128828	128828	128828	128828	108002	11349		
RFG																	
WITH ETHANOL	HC*	0.940	107630	107618	107618	14232	8635	121760	121760	121760	121760	121760	121760	118053	10811		
AT 2.1% O2	ETOH	0.060	4540	4538	0	3881	376	8527	3881	8527	3881	8527	3881	376	607		
(NEW ETOH)		1.000	112170	112053	107618	18223	8911	130277	125741	130277	125741	130277	125741	116423	11618		
RFG																	
WITH ETHANOL	HC*	0.940	107630	107618	107618	14232	8635	121760	121760	121760	121760	121760	121760	118053	10811		
AT 2.1% O2	ETOH	0.060	4540	4538	0	3881	376	8527	3881	8527	3881	8527	3881	376	607		
(EXISTING ETOH)		0.040	4540	4538	4636	628	468	5165	468	5165	468	5165	468	468	468		
TOTAL		0.980	112170	112053	112053	14861	8894	128815	128815	128815	128815	128815	128815	121047	11377		
CG IN PADD II																	
WITH MTBE	HC*	0.960	112210	112210	110216	16294	11152	126510	126510	126510	126510	126510	126510	121368	11312		
AT 2.1% O2	MTBE	0.020	1871	1837	407	621	0	2358	2358	2358	2358	2358	2358	407	186		
TOTAL		1.000	114081	114081	112053	16815	11152	127888	127888	127888	127888	127888	127888	121776	11488		

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS

EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

estimates had no effect on the total oil use estimates.

Finally, based on the analysis of ethanol supply and demand attached (8) and the current absence of ETBE production, it would appear that some combination of scenarios 4 and 5 in Table 9 would represent the most likely use of ethanol in the near-future under a ROS mandate. If this is true, then, where RFG is used, the ROS would increase oil use between 2% and 3.3% and decrease fossil energy use between 0.5 and 0.9%. While Table 9 indicates a 0.1 to 0.6% increase in CO₂ for these scenarios, given the uncertainty discussed above, we simply conclude that there would be no change in the CO₂ emissions.

References

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TABLE 2: RELATIVE PER GALLON ENERGY CONTENT AND CO₂-EQUIVALENT EMISSIONS OF SUMMER AND WINTER RFGs; ALL VALUES PRESENTED ARE CALCULATED RELATIVE TO SUMMER RFG WITH MTBE (MAD ESTIMATES)

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO ₂ -EQUIVALENT EMISSIONS
SUMMER				
RFG W MTBE AT 2.1%	1.000	1.000	1.000	1.000
RFG W ETBE AT 2.1% (NEW ETOH)	1.017	0.983	0.982	1.007
RFG W ETBE AT 2.1% (EXISTING ETOH)	0.992	0.992	1.024	0.996
CG IN PADD II	0.987	0.987	1.120	0.998
WINTER				
RFG W MTBE AT 2.1%	0.980	0.980	0.983	0.958
RFG W ETOH AT 2.1% (NEW ETOH)	0.992	0.958	1.050	0.973
RFG W ETOH AT 2.1% (EXISTING ETOH)	0.967	0.967	1.092	0.961
CG IN PADD II	0.974	0.974	1.099	0.971

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS
 EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

TABLE 3: PER GALLON ENERGY CONTENT AND CO₂-EQUIVALENT EMISSIONS OF ANNUAL USE OF RFGs WITH SPECIFIC OXYGENATES (1) (MAD ESTIMATES)

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO ₂ -EQUIVALENT EMISSIONS
RFG W MTBE AT 2.1%	129740	129740	109771	11554
RFG WITH ETBE (SUMMER) AND ETOH (WINTER) AT 2.1% (NEW ETOH)	131636	127101	113277	11687
RFG WITH ETBE (SUMMER) AND ETOH (WINTER) AT 2.1% (EXISTING ETOH)	128305	128305	117926	11551
CG IN PADD II	128584	128584	122788	11632

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS
EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

(1) Annual usage is determined by weighting summer fuels (Table 1) by 5 months and winter fuels (also Table 1) by 7 months.

TABLE 4: RELATIVE PER GALLON ENERGY CONTENT AND CO2-EQUIVALENT EMISSIONS OF ANNUAL USAGE OF RFGs WITH SPECIFIC OXYGENATES: ALL VALUES PRESENTED ARE CALCULATED RELATIVE TO ANNUAL USE OF RFG WITH MTBE (MAD ESTIMATES)

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO2-EQUIVALENT EMISSIONS
RFG W MTBE AT 2.1%	1.000	1.000	1.000	1.000
RFG WITH ETBE (SUMMER)	1.015	0.980	1.032	1.012
AND ETOH (WINTER) AT 2.1% (NEW ETOH)				
RFG WITH ETBE (SUMMER)	0.989	0.989	1.074	1.000
AND ETOH (WINTER) AT 2.1% (EXISTING ETOH)				
CG IN PADD II	0.991	0.991	1.119	1.007

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS
 EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

TABLE 5 : AVERAGE (PROGRAM-WIDE) ENERGY CONTENT AND CO2-EQUIVALENT EMISSIONS OF RFGs (MAD ESTIMATES)
(ALL RFGs AT 2.1%)

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO2-EQUIVALENT EMISSIONS
RFG W MTBE (YEAR-ROUND)	129740	129740	109771	11554
RFG WITH ETBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	130309	128949	110823	11594
(NEW ETOH)				
RFG WITH ETBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	129310	129310	112218	11553
(EXISTING ETOH)				
RFG WITH ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	130244	128883	112006	11606
(NEW ETOH)				
RFG WITH ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	129235	129235	113391	11564
(EXISTING ETOH)				
CG IN PADD II	128584	128584	122788	11632

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS

EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

(1) 30% OF RFGs OXYGENATED WITH RENEWABLES PROGRAM-WIDE

TABLE 6: RELATIVE AVERAGE (PROGRAM-WIDE) ENERGY CONTENT AND CO2-EQUIVALENT EMISSIONS: ALL VALUES ARE CALCULATED RELATIVE TO YEAR-ROUND RFG WITH MTBE (ALL RFGs AT 2.1%) (MAD ESTIMATES)

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO2-EQUIVALENT EMISSIONS
RFG W MTBE (YEAR-ROUND)	1.000	1.000	1.000	1.000
RFG WITH ETBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1) (NEW ETOH)	1.004	0.994	1.010	1.003
RFG WITH ETBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1) (EXISTING ETOH)	0.997	0.997	1.022	1.000
RFG WITH ETOH (WINTER), AND MTBE (YEAR-ROUND) (1) (NEW ETOH)	1.004	0.993	1.020	1.005
RFG WITH ETOH (WINTER), AND MTBE (YEAR-ROUND) (1) (EXISTING ETOH)	0.996	0.996	1.033	1.001
CG IN PADD II	0.991	0.991	1.119	1.007

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS

EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

(1) 30% OF RFGs OXYGENATED WITH RENEWABLES PROGRAM-WIDE

TABLE 7. FUEL VOLUMES AND ENERGY CONTENT FOR RFG WITH 2.1% O₂ CONTENT (AG ESTIMATES) - ENERGY, OIL, & CO₂ EQUIVALENT EMISSIONS FOR RFG VOLUMES WHICH CONTAIN THE SAME ENERGY AS RFG WITH MTBE)

FUEL TYPE	COMPO. HEATS	ENERGY CONTENT OF INITIAL VOLUME		REVISED ENERGY CONTENT		OIL CONTENT		ENERGY REQUIRED TO PRODUCE		OIL REQUIRED TO PRODUCE		TOTAL ENERGY REQUIRED TO DELIVER		TOTAL FOSSIL ENERGY REQUIRED TO DELIVER		TOTAL OIL REQUIRED TO DELIVER		CO ₂ EQUIVALENT EMISSIONS		
		GALLONS	BTU	GALLONS	BTU	FEEDSTOCK	BTU	RFG	BTU	RFG	BTU	RFG	BTU	RFG	BTU	RFG	BTU	RFG	Q	Q
SUMMER FUELS ANALYSIS																				
RFG																				
WITH MTBE	HC*	0.883	101142	0.883	101142	101142	101142	15898	0	9080	0	117138	117138	117138	117138	117138	117138	117138	117138	10736
AT 2.1% O ₂	MTBE	0.117	10912	0.117	10912	847	847	3248	0	0	0	14158	14158	14158	14158	14158	14158	14158	14158	1106
TOTAL		1.000	112053	1.000	112053	101789	101789	19244	0	9080	0	131297	131297	131297	131297	131297	131297	131297	131297	11841
RFG																				
WITH ETBE	HC*	0.887	99272	0.889	99176	99176	99176	16488	0	8687	0	114843	114843	114843	114843	114843	114843	114843	114843	10487
AT 2.1% O ₂	ETBE	0.133	12891	0.133	12879	895	895	5110	178	178	17898	13463	13463	13463	13463	13463	13463	13463	13463	1300
IN NEW ETOH	CG	1.000	112183	0.999	112053	89840	89840	20679	0	8644	0	132832	132832	132832	132832	132832	132832	132832	132832	11787
RFG																				
WITH ETBE	HC*	0.887	99272	0.886	99176	99176	99176	16489	0	8687	0	114843	114843	114843	114843	114843	114843	114843	114843	10487
AT 2.1% O ₂	ETBE	0.133	12891	0.133	12879	895	895	5110	178	178	17898	13453	13453	13453	13453	13453	13453	13453	13453	1300
EXISTING ETOH	CG	0.060	4540	0.060	4538	0	0	3034	0	180	0	7670	7670	7670	7670	7670	7670	7670	7670	484
TOTAL		0.980	112183	0.979	112053	104378	104378	18247	0	9181	0	130300	130300	130300	130300	130300	130300	130300	130300	11771
CG IN PADD II																				
WITH MTBE	HC*	0.980	112210	0.983	110216	110216	110216	17066	0	12967	0	127282	127282	127282	127282	127282	127282	127282	127282	11632
AT 2.1% O ₂	MTBE	0.020	1871	0.020	1837	1032	1032	487	0	0	0	2305	2305	2305	2305	2305	2305	2305	2305	186
TOTAL		1.000	114081	0.982	112053	111249	111249	17553	0	12967	0	129698	129698	129698	129698	129698	129698	129698	129698	11818
WINTER FUELS ANALYSIS																				
RFG																				
WITH MTBE	HC*	0.883	101142	0.883	101142	101142	101142	13272	0	7880	0	114414	114414	114414	114414	114414	114414	114414	114414	10243
AT 2.1% O ₂	MTBE	0.117	10912	0.117	10912	0	0	3303	0	0	0	14215	14215	14215	14215	14215	14215	14215	14215	1108
TOTAL		1.000	112053	1.000	112053	101142	101142	16575	0	7880	0	128629	128629	128629	128629	128629	128629	128629	128629	11348
RFG																				
WITH ETHANOL	HC*	0.940	107630	0.939	107518	107518	107518	14232	0	8636	0	121750	121750	121750	121750	121750	121750	121750	121750	10811
AT 2.1% O ₂	ETOH	0.060	4540	0.060	4538	0	0	3034	189	189	0	7670	7670	7670	7670	7670	7670	7670	7670	484
IN NEW ETOH	CG	1.000	112170	0.999	112053	107518	107518	17266	0	8721	0	129320	129320	129320	129320	129320	129320	129320	129320	11405
RFG																				
WITH ETHANOL	HC*	0.940	107630	0.939	107518	107518	107518	14232	0	8636	0	121750	121750	121750	121750	121750	121750	121750	121750	10911
AT 2.1% O ₂	ETOH	0.040	4540	0.040	4538	0	0	229	0	0	0	0	0	0	0	0	0	0	0	0
EXISTING ETOH	CG	0.980	112170	0.979	112053	112053	112053	14861	0	8984	0	128915	128915	128915	128915	128915	128915	128915	128915	486
TOTAL		0.980	112170	0.979	112053	112053	112053	14861	0	8984	0	128915	128915	128915	128915	128915	128915	128915	128915	11377
CG IN PADD II																				
WITH MTBE	HC*	0.980	112210	0.983	110216	110216	110216	16294	0	11162	0	125510	125510	125510	125510	125510	125510	125510	125510	11312
AT 2.1% O ₂	MTBE	0.020	1871	0.020	1837	407	407	521	0	0	0	2358	2358	2358	2358	2358	2358	2358	2358	186
TOTAL		1.000	114081	0.982	112053	110823	110823	15815	0	11162	0	127888	127888	127888	127888	127888	127888	127888	127888	11489

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS

EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

TABLE B. FUEL VOLUMES AND ENERGY CONTENT FOR RFG WITH 2.1% O₂ CONTENT (HO ESTIMATES)
(ENERGY, OIL, & CO₂ EQUIVALENT EMISSIONS FOR RFG VOLUMES WHICH CONTAIN THE SAME ENERGY AS RFG WITH MTBE)

FUEL TYPE	COMPO. NENTS	INITIAL VOLUME		REVISD ENERGY CONTENT		OIL CONTENT (FEEDSTOCK)		ENERGY REQUIRED TO PRODUCE		OIL REQUIRED TO PRODUCE		TOTAL ENERGY REQUIRED TO DELIVER RFG		FOSSIL ENERGY REQUIRED TO DELIVER RFG		TOTAL OIL REQUIRED TO DELIVER RFG		CO ₂ EQUIVALENT EMISSIONS			
		BTU	GALLONS	BTU	GALLONS	BTU	GALLONS	BTU	GALLONS	BTU	GALLONS	BTU	GALLONS	BTU	GALLONS	BTU	GALLONS	BTU	GALLONS	BTU	GALLONS
SUMMER FUELS ANALYSIS																					
RFG	WITH MTBE	0.883	101142	101142	0.883	101142	101142	15880	0.808	117138	117138	117138	117138	117138	117138	110202	10735	110202	10735		
	MTBE	0.117	10912	0.67	0.117	10912	0.67	3248	0	14159	14159	14159	14159	14159	647	647	110849	110849	110849	110849	
	TOTAL	1.000	112053	112053	1.000	112053	112053	18244	0.908	131287	131287	131287	131287	131287	110849	110849	110849	110849	110849	110849	
RFG	WITH ETBE	0.887	99272	99272	0.888	99175	89175	15469	0.887	114643	114643	114643	114643	114643	107842	10487	107842	10487	107842	10487	
	MTBE	0.133	12891	0.65	0.133	12879	0.65	8860	0.888	12745	12745	12745	12745	12745	1341	1341	109183	109183	109183	109183	
	TOTAL	1.000	112163	112053	0.999	89840	89840	22335	0.933	134388	134388	134388	134388	134388	12852	12852	12852	12852	12852	12852	
RFG	WITH ETBE	0.867	99272	99272	0.868	99175	99175	15468	0.867	114643	114643	114643	114643	114643	107842	10487	107842	10487	107842	10487	
	MTBE	0.133	12891	0.65	0.133	12879	0.65	8860	0.868	12745	12745	12745	12745	12745	1341	1341	109183	109183	109183	109183	
	TOTAL	1.000	112163	112053	0.999	89840	89840	22335	0.933	134388	134388	134388	134388	134388	12852	12852	12852	12852	12852	12852	
CG IN PADD II	WITH ETBE	0.980	112210	112210	0.983	110210	110210	17066	0.980	127282	127282	127282	127282	127282	123173	11632	123173	11632	123173	11632	
	MTBE	0.020	1871	0.020	0.020	1837	0.020	467	0.983	2305	2305	2305	2305	2305	1032	1032	1032	1032	1032	1032	
	TOTAL	1.000	114081	114081	0.982	112048	112048	17533	0.982	129635	129635	129635	129635	129635	124205	11816	124205	11816	124205	11816	
WINTER FUELS ANALYSIS																					
RFG	WITH MTBE	0.883	101142	101142	0.883	101142	101142	13272	0.883	114414	114414	114414	114414	114414	109002	10243	109002	10243	109002	10243	
	MTBE	0.117	10912	0	0.117	10912	0	3303	0.883	14215	14215	14215	14215	14215	0	0	109002	109002	109002	109002	
	TOTAL	1.000	112053	101142	1.000	112053	101142	16575	0.883	128629	128629	128629	128629	128629	109002	10243	109002	10243	109002	10243	
RFG	WITH ETHANOL	0.940	107630	107630	0.939	107518	107518	14232	0.939	121760	121760	121760	121760	121760	110053	10811	110053	10811	110053	10811	
	MTBE	0.060	4540	0	0.060	4535	0	4885	0.939	9420	9420	9420	9420	9420	712	712	110053	110053	110053	110053	
	TOTAL	1.000	112170	107518	1.000	112053	107518	18117	0.939	131170	131170	131170	131170	131170	110765	10811	110765	10811	110765	10811	
RFG	WITH ETHANOL	0.940	107630	107630	0.939	107518	107518	14232	0.939	121760	121760	121760	121760	121760	110053	10811	110053	10811	110053	10811	
	MTBE	0	0	0	0.000	0	0	0	0.939	0	0	0	0	0	0	0	0	0	0	0	
	TOTAL	0.940	107630	107630	0.939	107518	107518	14232	0.939	121760	121760	121760	121760	121760	110053	10811	110053	10811	110053	10811	
CG IN PADD II	WITH ETBE	0.980	112210	112210	0.983	110210	110210	15294	0.980	125510	125510	125510	125510	125510	121388	11312	121388	11312	121388	11312	
	MTBE	0.020	1871	0.020	0.020	1837	0.020	521	0.983	2388	2388	2388	2388	2388	407	407	127888	127888	127888	127888	
	TOTAL	1.000	114081	114081	0.982	112053	112053	15816	0.982	127888	127888	127888	127888	127888	121775	11498	121775	11498	121775	11498	

NEW ETBE = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS
EXISTING ETBE = ETHANOL DIVERTED FROM EXISTING MARKETS

TABLE 9 RELATIVE AVERAGE (PROGRAM-WIDE) ENERGY CONTENT AND CO2-EQUIVALENT EMISSIONS. ALL VALUES ARE CALCULATED RELATIVE TO YEAR-ROUND RFG WITH MTBE

SCENARIO	SOURCE OF ESTIMATE	TOTAL ENERGY USE				FOSSIL ENERGY USE				OIL USE				CO2-EQUIVALENT EMISSIONS			
		ORIGINAL (3/17/94)	MAD	AG	HO	ORIGINAL (3/17/94)	MAD	AG	HO	ORIGINAL (3/17/94)	MAD	AG	HO	ORIGINAL (3/17/94)	MAD	AG	HO
	FUELS																
1	RFG WITH MTBE (YEAR-ROUND)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2	RFG WITH MTBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	1.005	1.004	1.002	1.008	0.995	0.994	0.992	0.996	0.994	0.994	0.992	0.996	1.000	1.003	1.000	1.005
3	(NEW ETOH) RFG WITH ETBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	0.998	0.997	0.997	0.997	0.998 (2)	0.997	0.997	0.997	0.997	0.997	0.997	1.022	1.000	1.000	1.000	1.000
4	(EXISTING ETOH) RFG WITH ETOH (WINTER), AND MTBE (YEAR-ROUND) (1)	1.006	1.004	1.002	1.006	0.995	0.993	0.991	0.995	0.995	0.995	1.020	1.020	1.004	1.005	1.002	1.009
5	(NEW ETOH) RFG WITH ETOH (WINTER), AND MTBE (YEAR-ROUND) (1)	0.999	0.996	0.996	0.996	0.999	0.996	0.996	0.996	0.996	0.996	1.033	1.033	1.000	1.001	1.001	1.001
6	(EXISTING ETOH) CG IN PAO0-II	0.999	0.991	0.991	0.991	0.999	0.991	0.991	0.991	0.991	0.991	1.119	1.119	1.005	1.007	1.007	1.007

NOTES

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS
 EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS
 MAD = ASSUMES A FUEL CATCH-UP OF THE ENERGY AND OIL REQUIRED IN ETHANOL PRODUCTION (ANLES/IM-22, VOL.2, 11/93)
 AG = ASSUMES A FUEL CATCH-UP OF THE ENERGY AND OIL REQUIRED IN ETHANOL PRODUCTION (CONWAY, ET AL., 1/94)
 HO = ASSUMES A F. HO (AMOCO)'S ESTIMATES OF THE ENERGY AND OIL REQUIRED IN ETHANOL PRODUCTION (HO, 10/89)
 ALL RFGS AT 2.1% OXYGEN

FOOTNOTES:

(1) 30% OF RFGs OXYGENATED WITH RENEWABLES PROGRAM-WIDE
 (2) CORRECTED FROM ORIGINAL ESTIMATE TO ACCOUNT FOR MATHEMATICAL ERROR

Kevin Stork
Argonne National Laboratory
June 6, 1994

Analysis Memorandum: The Impact of the Renewable Oxygenate Proposal on Ethanol Availability For Use as an Oxygenate in RFG, Oxygenated Gasoline and Gasohol

Notation:

CG	Conventional gasoline
RFG	Reformulated gasoline
OG	Oxygenated gasoline for CO control
RFG/OG	RFG with 2.7% wt. oxygen (except in CA where oxygen is fixed at 2.0% year round)
gasohol	CG with 10% vol. ethanol

Introduction:

This is a revised analysis of the implications for ethanol supply and demand of the December 15, 1993, EPA renewable oxygenate proposal (ROS). If adopted, the ROS will effectively mandate the use of corn-based ethanol (or the ethanol-derived ether ETBE) as an oxygenate for 30% of the reformulated gasoline pool until such time as other renewable oxygenates are economically competitive.

The analysis is cast to represent possible situations at the beginning of the program in 1995, but may also be applicable to a mature program. It is not yet known whether the ROS, if adopted, will apply as early as 1995. In this analysis it is assumed that it will apply. This analysis also assumes that initially ETBE will be unavailable for use in the summer (taken to be five months, including approximately two weeks lead and lag time between seasons). Three seasonal cases are considered and credit trading is accommodated.

A 12-month case represents total demand for fuel ethanol in 1995. Though ETBE is not expected to be used extensively in 1995, the 12-month case represents the ethanol utilization rates which would result if it were possible to oxygenate year-round with renewables.

A 7-month case represents the use of the volume of ethanol required annually during a reasonable estimate of the length of the winter RFG season.¹ The winter season would be a split season during a calendar year. The first part of the season is assumed to run from January through April in this analysis. The second runs from October through December.

Finally, a 4-month, or "front-loaded", case represents a possible first-year scenario in which lack of experience with the program among refiners contributes to uncertainty in the markets for ethanol and renewable-oxygenate credits. The front-loaded case represents an extreme in monthly demand for ethanol which could arise as a result of refiners' attempts to bring their renewable oxygenate obligations into balance during the beginning of the bipartite winter season. While it is unlikely that all refiners would attempt to fulfill the requirement for renewable oxygenate use during the first part of the winter, individual refiners, particularly those outside of the ethanol producing regions, could attempt to satisfy the ROS requirement during the first part of the winter season to avoid being short credits later in the year.

The result of a front-loaded scenario is increased demand for ethanol in RFG destined for retail sale from January through April or, equivalently, increased demand for ethanol credits. In addition to a first-year scenario, the front-loaded case may also be a reasonable model of the mature program facing disruptions in the ethanol market.

Credit trading is analyzed by distinguishing between those states likely to be net credit sellers (called producer states) and net credit buyers (non-producer states). An analysis of the maximum generation and sale of credits follows the seasonal analysis.

Revisions to the original analysis:

The original analysis has been expanded to address comments from reviewers. Revisions based on the comments are as follows:

- Fuel demand has been estimated for 1995 by scaling the data used in the original analysis, FHWA 1992 gasoline and gasohol sales data. The scaling

¹ The winter season may be somewhat shorter in practice for some refiners. In particular, for Gulf Coast refiners serving markets in the northeast, seven months may be an overestimate of the useable winter season.

factor (4.80%) is the increase in gasoline demand over the period².

- The current analysis is based on an opt-in scenario currently considered likely rather than on the nine-city and full opt-in cases considered originally.³ A full opt-in case could still be considered to be the most extreme limit on analysis, though it has not been presented here (due to the other revisions in the analysis, the results of the original full opt-in case would not be appropriate for comparison with the current analysis). As in the original analysis, population serves as the measure of gasoline demand.
- The demand for fuel ethanol due to the oxygenated gasoline program for CO non-attainment areas has been included in this revision. According to EIA, about 30% of oxygenated gasoline for CO control (OG) is oxygenated using ethanol. This figure was applied to expected demand for OG in the analysis.
- Fuel ethanol production capacity has been adjusted to 85% of the nameplate capacity reported in the original analysis. The expected ethanol capacity, as in the original analysis, includes currently operable capacity and capacity under construction which should be available by the start of the program.⁴

Key Assumptions:

- 1992 motor fuel use patterns hold for future years. For example, a state which used 15% gasohol, 5% OG and 80% CG (where some of the gasohol serves as OG) in 1992, it is assumed that the same proportions would hold for subsequent years in the absence of RFG and the ROS.
- Seasonal variation in gasoline consumption was ignored.

² Mr. David Chien, of the U.S. Energy Information Administration, provided the data for the scaling factor from model runs for EIA's Annual Energy Outlook 1994.

³ Data on opt-in are from the list of Opt-Ins available from the EPA OMS computer bulletin board in January, 1994. A current list may be used for a subsequent revision of this report if it is significantly different.

⁴ Dr. John McClelland, of the U.S. Department of Agriculture, provided ethanol capacity data and interpretive assistance on ethanol capacity figures. From those data, it appears that approximately 6% additional ethanol capacity may be available from idle facilities which are too small to be competitive currently but which could be brought on-line by 1995 if the price of ethanol rises sufficiently. The results of this analysis indicate that the additional capacity would not change the outcome for the cases under which there is an insufficient supply of ethanol.

- Gasohol and OG account for total fuel ethanol use outside of the RFG program.⁵
- Ethanol is used to oxygenate 30% of OG absent the ROS.⁶
- Renewable oxygenate credits can not be carried over between different calendar years. Also, credits can not be accumulated prior to the beginning of manufacture of gasoline for retail sale in January, 1995.⁷
- Volume of fuel consumed is proportional to population (i.e., if 60% of a state's population is in a non-attainment area then 60% of its gasoline demand is assumed to be met with RFG and 40% with either conventional gasoline, oxygenated gasoline or gasohol according to proportions of CG, OG and gasohol in the remaining pool).
- Gasohol sales are evenly distributed within a state. Absent RFG, attainment areas and non-attainment areas are assumed to use gasohol in proportion to their populations.

Results:

Seasonal Analysis Results:

Table 1 summarizes the net national supply (demand) for fuel ethanol under two ethanol utilization scenarios for each of the seasonal cases. Net supply implies ethanol production capacity in excess of demand.

⁵ Gasohol and gasoline sales volume data were collected by the Federal Highway Administration (FHWA). The data for 1992 are the latest available from FHWA, which no longer collects gasohol data. These values understate actual gasohol use because they are based on tax revenue data. States which tax gasoline and gasohol at the same rate have commingled data.

⁶ The CAA-mandated use of oxygenates during the winter in thirty-nine CO non-attainment areas went into effect on November 1, 1992. That requirement (oxygen at 2.7% wt) can be met with gasohol (oxygen at 3.5% wt). At most, two months of the 1992 gasohol data include gasohol sold specifically to satisfy this mandate.

⁷ Credit generation for renewable oxygenate use will begin in 1994 when gasoline for January, 1995, delivery begins. However, the one-time credit roll over from calendar-year 1994 to 1995 is ignored.

Table 1.

**Summary of Seasonal Results
(MM gal)**

Utilization Period for Ethanol in RFG (Months)	Ethanol Production Capacity Over Period	Ethanol Required to Satisfy ROS ⁸	Ethanol Demand Outside of RFG Areas Over Period	Net Ethanol Supply (Demand) Over Period	Percentage Diversion EtOH From Non-RFG Pool Necessary to Satisfy ROS
12	1,368	705	949	(286)	30%
7	798	705	554	(461)	83%
4	456	705	316	(565)	> 100% ⁹

12-Month Analysis:

- On an annual basis, there will be demand for ethanol in excess of capacity over the period of 286 MM gal, given expected ethanol capacity and an unchanged level of ethanol demand in areas not using RFG.
- If demand for ethanol in the gasohol and OG markets is not met, there is excess supply of fuel ethanol of 663 MM gal.
- Meeting RFG demand requires a 30% reduction in use of ethanol for OG and gasohol during the period.

⁸ On a 12-month basis, 334 MM gal of ethanol is being used within RFG areas (without the ROS). This ethanol would apply towards the ROS.

⁹ Despite diversion of all ethanol from the gasohol and OG pools, there would be insufficient ethanol production capacity to meet the requirements of the ROS in this case. Approximately 55% additional ethanol capacity would be required to satisfy the ROS only over the period.

7-month Analysis:

- There will be demand for ethanol in excess of capacity over the period of 461 MM gal, given expected ethanol capacity and an unchanged level of ethanol demand in areas not using RFG.
- If demand for ethanol in the gasohol and OG markets is not met, there is excess supply of fuel ethanol of 93 MM gal.
- Meeting RFG demand requires an 83% reduction in use of ethanol for OG and gasohol during the period.

4-month Analysis:

- There will be demand for ethanol in excess of capacity over the period of 565 MM gal, given expected ethanol capacity and an unchanged level of ethanol demand in areas not using RFG.
- Even if demand for ethanol in the gasohol and OG markets is not met, there is excess demand for fuel ethanol of 249 MM gal.
- Meeting RFG demand requires the elimination of all use of ethanol for OG and gasohol during the period and an increase in expected production capacity of approximately 55%.

The 7-month seasonal case, which represents the likely longer-term operation of the ROS during Phase I of the RFG program, requires approximately 88% capacity utilization to satisfy the ROS alone.¹⁰ This suggests that a full-winter season would be sufficient to accommodate annual fuel ethanol demand under the ROS only if essentially all fuel ethanol which would otherwise be used in gasohol and OG is diverted to the RFG pool during the period.

If ethanol demand outside of areas requiring RFG (i.e., gasohol and OG) is to be met, demand during the 7-month period would be 1,259 MM gal. This is greater than the domestic production capacity for ethanol and so would require drawdown

¹⁰ Assuming the ethanol capacities have been adjusted properly (i.e., that 85% of nameplate is correct), average ethanol capacity utilization was 85% for Jan.-Apr., 1993, and 93% for Jan.-Mar., 1994.

of inventory. Ethanol inventory as reported by EIA¹¹ ranged from 75-120 MM gal during 1993. This suggests a working inventory of approximately 50 MM gal available for draw down. Meeting the demands due to both the ROS and the gasohol/OG markets would require inventory levels or ethanol production capacity to be increased in the future.

Regional Analysis Results (Credit Trading/Ethanol Movement):

Primary ethanol producing states are those PADD II states with at least 30 MM gal/year fuel ethanol capacity. These include: IL, IN, IA, KS, MN, NE, ND, OH and TN. Collectively, they contain more than 97% of existing ethanol capacity. These ethanol producer states are the most likely net credit sellers. The maximum use of credits is considered below to establish the minimum necessary level of additional, incremental ethanol movement.

Blending renewable oxygenates into more than 30% of RFG gallonage or at oxygen levels above 2.1% wt. (up to 3.5% maximum) generates credit for trading. Maximum credit generation was considered under the three seasonal scenarios by assuming 90% of the RFG consumed in ethanol producing regions to be oxygenated with ethanol to 3.5%.¹² For credit-trading analysis, the non-producer states (all RFG-consuming states which are not among the primary ethanol producers listed above) are assumed to use the minimum required level of ethanol in RFG and RFG/OG and to use no ethanol outside of the RFG pool. The results are summarized in Tables 2 and 3:

¹¹ Weekly Petroleum Status Report, Table B2.

¹² The 90% figure allows for outstanding MTBE contracts and other constraints on refiners' ability to oxygenate with ethanol. If 100% of RFG in the producer regions is oxygenated with ethanol to the 3.5% level, in each case approximately 14% additional credit would be generated.

Table 2.

**Maximum Generation of Credits
MM Gal.**

Period of Credit Generation	Ethanol Used in Producer Region	Ethanol Req'd. Under ROS (30% at 2.1% wt.)	Ethanol Credit Available
12-Month	415	83	332
7-Month	242	49	193
4-Month ¹³	138	28	110

¹³ It is unlikely that refiners in the ethanol producer states will be limited to the four-month period for generation of renewable oxygenate credits. However, credit purchasers in the non-producer states might be unwilling to wait for credits generated in the second part of the winter season to achieve their required ROS credit balances.

Table 3.

**Net Ethanol Movement
MM Gal.**

Period Of Ethanol Utilization	Gross Ethanol Use Required To Meet Annual ROS In Non-Producer States ¹⁴	Available Credit From Producer States	Net EtOH Required In Non-Producer States Under ROS	Current ¹⁵ EtOH Use In Non-Producer States Which Require RFG	Net ¹⁶ Ethanol Movement Into Non-producer States Due To ROS Only
12-Month	622	332	290	408	(118)
7-Month	622	193	429	238	191
4-Month	622	110	512	136	376

Conclusions:

The most likely scenario for 1995 is probably something between the 7- and 4-month cases for the winter season. Since ETBE is not likely to be widely used, the winter season is likely to be the only period in which the renewable oxygenated

¹⁴ Total required ethanol under the ROS does not change despite the shorter time assumed available to meet requirements.

¹⁵ Current ethanol use includes RFG and Non-RFG areas for states with RFG areas. Total ethanol transported from ethanol producing states to all others is 716, 418, and 239 MM gal/period for the 12-, 7-, and 4-month periods, respectively. This allows a calculation of the incremental burden placed on the ethanol interstate logistics and distribution system by the ROS.

¹⁶ This accounts only for interstate movement from producers to non-producers. (As defined on p. 7, all non-producer states are RFG consumers.) Ethanol may be redistributed among states with and those without RFG areas. The modes and distances of transportation might change, with unpredictable results, under such redistribution. Significant intrastate shift of ethanol use is required due to the assumed complete diversion of ethanol to the RFG pool from gasohol and OG within the non-producer states. This also does not account for ethanol movement among producer states or within individual producer states.

For the 12-month case, the negative increment implies that there would be logistical capacity for fuel ethanol beyond the requirements of the RFG pool at current transshipment levels.

requirement can be satisfied.¹⁷

The use of ethanol to oxygenate RFG during a seven-month winter season would require essentially all available fuel ethanol capacity during the 1995 winter season. This could severely limit the availability of ethanol for traditional gasoline blending into gasohol and OG. Increases in ethanol capacity beyond those estimated or use of stocks could mitigate shortages.

The front-loaded case (a four-month season for ethanol use under the ROS) would produce monthly demand in excess of supply even if ethanol is used only in RFG and RFG/OG and no ethanol is available for gasohol or OG blending during the period.

Assuming no use of ethanol outside of the RFG pool and maximum use of credit trading, flow of ethanol to the states requiring RFG would have to increase over current levels in the 7-month case by approximately 80%. Substantial change in the distribution of ethanol within states would also be required. Total interstate transportation of ethanol would have to increase by 46%.

Even with increased production capacity and inventory drawdown, total interstate transportation of ethanol would have to increase by 157% to satisfy the ROS in the 4-month scenario and would also require the elimination of all gasohol and non-RFG OG. Transportation to non-producer states would have to increase by 276%.

¹⁷ If midwestern refiners blend ethanol into low-RVP blendstock, ethanol could be used directly during the summer season. Presumably, refining such blendstock would be economical at some value of oxygenate credit, but it is beyond the scope of this paper to speculate on what value would be required.

Appendix: Ethanol Distribution Spreadsheet

30% RFG requires ethanol:VOLUMES IN MILLIONS OF GALLONS
ANNUALLY:

State	1995	1995	FHWA Gasohol Sales 1995 (Extrapol	FHWA Gasoline Sales 1995 (Extrapol	FHWA 1995 Total Sales Gasoline- Equivalent (Extrapolated)
	Fuel EtOH Operational Production Capacity (85% of Nameplate)	Potential Additional Fuel EtOH Capacity (85% of Nameplate)			
Alabama	0.0	0.0	294.2	2,300.7	2,584.9
Alaska	0.0	0.0	0.0	286.5	286.5
Arizona	0.0	0.0	0.0	1,882.3	1,882.3
Arkansas	0.0	0.0	25.7	1,348.3	1,373.1
California	4.5	0.0	62.3	14,297.2	14,357.4
Colorado	0.0	0.0	148.8	1,632.2	1,775.9
Connecti	0.0	0.0	52.8	1,478.9	1,529.9
Delaware	0.0	0.0	0.0	370.0	370.0
Dist. of	0.0	0.0	0.0	184.8	184.8
Florida	0.0	0.0	90.4	6,562.9	6,650.3
Georgia	0.0	0.0	24.1	3,790.3	3,813.5
Hawaii	0.0	0.0	0.0	417.1	417.1
Idaho	6.0	0.0	46.1	544.1	588.6
Illinois	597.1	0.0	1,642.3	4,842.0	6,428.6
Indiana	63.8	0.0	673.1	2,884.4	3,534.7
Iowa	317.9	0.0	539.1	1,458.2	1,979.1
Kansas	29.7	0.0	66.0	1,280.4	1,344.1
Kentucky	0.0	0.0	382.4	2,001.3	2,370.7
Louisian	0.0	64.6	87.6	2,043.8	2,128.4
Maine	0.0	0.0	0.0	641.9	641.9
Maryland	0.0	0.0	0.0	2,228.7	2,228.7
Massachu	0.0	0.0	0.0	2,528.9	2,528.9
Michigan	0.0	0.0	539.5	4,631.3	5,152.5
Minnesot	50.1	0.0	682.3	2,271.2	2,930.3
Mississi	0.0	0.0	0.0	1,400.8	1,400.8
Missouri	0.0	0.0	265.1	2,981.3	3,237.4
Montana	1.7	0.0	5.2	487.4	492.5
Nebraska	156.0	0.0	389.6	824.6	1,201.0
Nevada	0.0	0.0	75.1	735.8	808.4
New Hamp	0.0	0.0	0.0	553.1	553.1
New Jers	0.0	0.0	0.0	3,531.6	3,531.6
New Mexi	10.2	0.0	113.8	899.1	1,009.0
New York	0.0	0.0	0.0	5,924.6	5,924.6
North Ca	0.0	0.0	30.7	3,533.1	3,562.8
North Da	33.2	0.0	58.4	378.0	434.5
Ohio	55.3	0.0	1,309.0	4,964.6	6,229.2
Oklahoma	0.0	0.0	0.0	1,828.2	1,828.2
Oregon	0.0	0.0	200.4	1,446.2	1,639.8
Pennsylv	0.0	0.0	0.0	4,927.6	4,927.6
Rhode Is	0.0	0.0	0.0	400.9	400.9
South Ca	0.0	0.0	0.0	1,962.2	1,962.2
South Da	5.1	0.0	167.1	430.4	591.8
Tennesse	34.0	21.3	203.6	2,685.9	2,882.7
Texas	0.0	0.0	259.7	9,113.1	9,364.0
Utah	0.0	0.0	2.7	820.0	822.6
Vermont	0.0	0.0	0.0	313.9	313.9
Virginia	0.0	0.0	108.3	3,242.3	3,347.0
Washingt	3.6	0.0	443.1	2,529.1	2,957.2
West Vir	0.0	0.0	44.0	898.9	941.4
Wiscons1	0.0	0.0	167.7	2,274.5	2,436.6
Wyoming	0.0	0.0	54.2	336.4	388.7
Total	1,368	86	9,255	121,331	130,272

State	1995 Gasohol Fraction Total Gasoline- Equivalen	1995 Fractio of Stat Populat Using RFG	Pop. Fract. Requirin RFG/OG for CO Control Period	Pop. Fract. Requiri OG for CO Control Period	1995 OG Sales Volume	1995 RFG Sales Volume (O2 from EtOH 30% & MTBE 70%)
Alabama	0.110	0	0	0	0.0	0.0
Alaska	0.000	0	0	0.416	51.0	0.0
Arizona	0.000	0	0	0.582	469.2	0.0
Arkansas	0.018	0	0	0.022	12.7	0.0
California	0.004	0.540	0.540	0.888	13,010.3	7,911.7
Colorado	0.081	0	0	0.737	515.2	0.0
Connecticu	0.033	0.625	0.625	0.625	395.9	979.2
Delaware	0.000	0.829	0.646	0.658	104.3	313.9
Dist. of C	0.000	1	1	1	79.2	189.3
Florida	0.013	0	0	0	0.0	0.0
Georgia	0.006	0	0	0	0.0	0.0
Hawaii	0.000	0	0	0	0.0	0.0
Idaho	0.076	0	0	0	0.0	0.0
Illinois	0.247	0.641	0	0	0.0	4,209.4
Indiana	0.184	0.11	0	0	0.0	397.2
Iowa	0.263	0	0	0	0.0	0.0
Kansas	0.047	0	0	0	0.0	0.0
Kentucky	0.156	0.278	0	0	0.0	673.2
Louisiana	0.040	0	0	0	0.0	0.0
Maine	0.000	0.656	0	0	0.0	430.1
Maryland	0.000	0.734	0.734	0.888	847.6	1,675.2
Massachuse	0.000	0.847	0.648	0.648	701.8	2,192.2
Michigan	0.101	0	0	0	0.0	0.0
Minnesota	0.225	0	0	0.59	573.9	0.0
Mississipp	0.000	0	0	0.026	15.6	0.0
Missouri	0.079	0	0	0	0.0	0.0
Montana	0.010	0	0	0	0.0	0.0
Nebraska	0.313	0	0	0	0.0	0.0
Nevada	0.090	0	0	0.825	260.0	0.0
New Hampsh	0.000	0.562	0.262	0.268	63.5	317.9
New Jersey	0.000	0.948	0.924	0.948	1,433.8	3,428.3
New Mexico	0.109	0	0	0.328	126.3	0.0
New York	0.000	0.751	0.621	0.678	1,720.3	4,554.4
North Caro	0.008	0	0	0.248	375.3	0.0
North Dako	0.130	0	0	0	0.0	0.0
Ohio	0.203	0	0	0.256	544.3	0.0
Oklahoma	0.000	0	0	0	0.0	0.0
Oregon	0.118	0	0	0.482	298.5	0.0
Pennsylvan	0.000	0.828	0.317	0.317	669.0	4,171.8
Rhode Isla	0.000	0.9	0	0	0.0	368.6
South Caro	0.000	0	0	0	0.0	0.0
South Dako	0.273	0	0	0	0.0	0.0
Tennessee	0.068	0	0	0.175	201.3	0.0
Texas	0.027	0.416	0.034	0.496	1,935.8	3,980.1
Utah	0.003	0	0	0.144	50.6	0.0
Vermont	0.000	0	0	0	0.0	0.0
Virginia	0.031	0.591	0.237	0.237	329.1	2,022.6
Washington	0.145	0	0	0.646	699.7	0.0
West Virgi	0.045	0	0	0	0.0	0.0
Wisconsin	0.067	0	0	0.019	18.5	0.0
Wyoming	0.135	0	0	0	0.0	0.0
Total					25,502	37,815

State	Total Non-RFG Fuel EtOH use (gasohol & OG only)	Fuel EtOH Use In RFG areas ABSENT ROS	Fuel EtOH Use Due To ROS (no OG outside of RFG pool & no gasohol)	Surplus (Shortage) of EtOH in RFG areas only
Alabama	29.4	0.0	0.0	0.0
Alaska	0.5	0.0	0.0	0.0
Arizona	4.5	0.0	0.0	0.0
Arkansas	2.7	0.0	0.0	0.0
Californi	248.5	134.2	135.5	1.4
Colorado	19.4	0.0	0.0	0.0
Connectic	9.0	5.6	19.7	14.1
Delaware	1.0	0.8	6.2	5.3
Dist. of	0.8	0.8	3.8	3.0
Florida	9.0	0.0	0.0	0.0
Georgia	2.4	0.0	0.0	0.0
Hawaii	0.0	0.0	0.0	0.0
Idaho	4.6	0.0	0.0	0.0
Illinois	164.2	105.3	75.8	(29.5)
Indiana	67.3	7.4	7.1	(0.3)
Iowa	53.9	0.0	0.0	0.0
Kansas	6.6	0.0	0.0	0.0
Kentucky	38.2	10.6	12.1	1.5
Louisiana	8.8	0.0	0.0	0.0
Maine	0.0	0.0	7.7	7.7
Maryland	8.2	6.0	33.6	27.7
Massachus	6.8	5.7	43.0	37.2
Michigan	54.0	0.0	0.0	0.0
Minnesota	72.5	0.0	0.0	0.0
Mississip	0.2	0.0	0.0	0.0
Missouri	26.5	0.0	0.0	0.0
Montana	0.5	0.0	0.0	0.0
Nebraska	39.0	0.0	0.0	0.0
Nevada	9.8	0.0	0.0	0.0
New Hamps	0.6	0.3	6.0	5.7
New Jerse	13.8	13.1	68.7	55.6
New Mexic	12.5	0.0	0.0	0.0
New York	16.6	12.5	89.8	77.4
North Car	6.7	0.0	0.0	0.0
North Dak	5.8	0.0	0.0	0.0
Ohio	135.1	0.0	0.0	0.0
Oklahoma	0.0	0.0	0.0	0.0
Oregon	22.6	0.0	0.0	0.0
Pennsylv	6.4	5.3	78.4	73.1
Rhode Isl	0.0	0.0	6.6	6.6
South Car	0.0	0.0	0.0	0.0
South Dak	16.7	0.0	0.0	0.0
Tennessee	22.2	0.0	0.0	0.0
Texas	44.1	18.4	72.3	54.0
Utah	0.8	0.0	0.0	0.0
Vermont	0.0	0.0	0.0	0.0
Virginia	13.9	8.2	38.1	29.9
Washingto	50.1	0.0	0.0	0.0
West Virg	4.4	0.0	0.0	0.0
Wisconsin	16.9	0.0	0.0	0.0
Wyoming	5.4	0.0	0.0	0.0
Total	1,283	334	705	370

Surplus (Shortage) of Fuel
EtOH assuming no change in
gasohol use patterns outside
of areas using RFG.

State ('95 OPER.CAP) ('95 MAX.CAP)

Surplus (Shortage) of Fuel
EtOH assuming ALL EtOH IS
USED IN RFG (i.e., no OG
out of RFG areas & no gasohol)
('95 OPER.CAP) ('95 MAX. CAP.)

Alabam	(29.4)	(29.4)	0.0	0.0
Alaska	(0.5)	(0.5)	0.0	0.0
Arizon	(4.5)	(4.5)	0.0	0.0
Arkans	(2.7)	(2.7)	0.0	0.0
Califo	(245.3)	(245.3)	(131.0)	(131.0)
Colora	(19.4)	(19.4)	0.0	0.0
Connec	(23.0)	(23.0)	(19.7)	(19.7)
Delawa	(6.3)	(6.3)	(6.2)	(6.2)
Dist.	(3.8)	(3.8)	(3.8)	(3.8)
Florid	(9.0)	(9.0)	0.0	0.0
Georgi	(2.4)	(2.4)	0.0	0.0
Hawaii	0.0	0.0	0.0	0.0
Idaho	1.3	1.3	6.0	6.0
Illino	462.4	462.4	521.4	521.4
Indian	(3.3)	(3.3)	56.6	56.6
Iowa	264.0	264.0	317.9	317.9
Kansas	23.1	23.1	29.7	29.7
Kentuc	(39.7)	(39.7)	(12.1)	(12.1)
Louisi	(8.8)	55.8	0.0	64.6
Maine	(7.7)	(7.7)	(7.7)	(7.7)
Maryla	(35.8)	(35.8)	(33.6)	(33.6)
Massac	(44.0)	(44.0)	(43.0)	(43.0)
Michig	(54.0)	(54.0)	0.0	0.0
Minnes	(22.4)	(22.4)	50.1	50.1
Missis	(0.2)	(0.2)	0.0	0.0
Missou	(26.5)	(26.5)	0.0	0.0
Montan	1.2	1.2	1.7	1.7
Nebras	117.0	117.0	156.0	156.0
Nevada	(9.8)	(9.8)	0.0	0.0
New Ha	(6.3)	(6.3)	(6.0)	(6.0)
New Je	(69.4)	(69.4)	(68.7)	(68.7)
New Me	(2.3)	(2.3)	10.2	10.2
New Yo	(94.0)	(94.0)	(89.8)	(89.8)
North	(6.7)	(6.7)	0.0	0.0
North	27.3	27.3	33.2	33.2
Ohio	(79.8)	(79.8)	55.3	55.3
Oklaho	0.0	0.0	0.0	0.0
Oregon	(22.6)	(22.6)	0.0	0.0
Pennsy	(79.5)	(79.5)	(78.4)	(78.4)
Rhode	(6.6)	(6.6)	(6.6)	(6.6)
South	0.0	0.0	0.0	0.0
South	(11.6)	(11.6)	5.1	5.1
Tennes	11.8	33.1	34.0	55.3
Texas	(98.1)	(98.1)	(72.3)	(72.3)
Utah	(0.8)	(0.8)	0.0	0.0
Vernon	0.0	0.0	0.0	0.0
Virgin	(43.8)	(43.8)	(38.1)	(38.1)
Washin	(46.5)	(46.5)	3.6	3.6
West V	(4.4)	(4.4)	0.0	0.0
Wiscon	(16.9)	(16.9)	0.0	0.0
Wyomin	(5.4)	(5.4)	0.0	0.0
Total	(285)	(199)	663	749

Annualized Equivalent Volume EtOH for
EtOH only during winter season in RFG.
(i.e., no EtOH is used in gasohol;
EtOH used in OG only if RFG required;
no summer ETBE)

State	Full Winter (7 Months)	Jan.-Apr. (First Year of Program)
Alabama	0.0	0.0
Alaska	0.0	0.0
Arizona	0.0	0.0
Arkansas	0.0	0.0
California	232.3	406.6
Colorado	0.0	0.0
Connecticut	33.7	59.0
Delaware	10.6	18.5
Dist. of C	6.5	11.4
Florida	0.0	0.0
Georgia	0.0	0.0
Hawaii	0.0	0.0
Idaho	0.0	0.0
Illinois	129.9	227.3
Indiana	12.3	21.4
Iowa	0.0	0.0
Kansas	0.0	0.0
Kentucky	20.8	36.4
Louisiana	0.0	0.0
Maine	13.3	23.2
Maryland	57.7	100.9
Massachuse	73.7	128.9
Michigan	0.0	0.0
Minnesota	0.0	0.0
Mississippi	0.0	0.0
Missouri	0.0	0.0
Montana	0.0	0.0
Nebraska	0.0	0.0
Nevada	0.0	0.0
New Hampsh	10.3	18.1
New Jersey	117.7	206.1
New Mexico	0.0	0.0
New York	154.0	269.5
North Caro	0.0	0.0
North Dako	0.0	0.0
Ohio	0.0	0.0
Oklahoma	0.0	0.0
Oregon	0.0	0.0
Pennsylvan	134.5	235.3
Rhode Isla	11.4	19.9
South Caro	0.0	0.0
South Dako	0.0	0.0
Tennessee	0.0	0.0
Texas	124.0	217.0
Utah	0.0	0.0
Vermont	0.0	0.0
Virginia	65.3	114.3
Washington	0.0	0.0
West Virgi	0.0	0.0
Wisconsin	0.0	0.0
Wyoming	0.0	0.0
Total	1,208	2,114

Annualized Equivalent Volume EtOH for
EtOH only during winter season in RFG
but keeping demand for gasohol & OG
unchanged outside of RFG areas.

State	Full Winter (7 Months)	Jan.-Apr. (First Year of Program)
Alabama	50.4	88.3
Alaska	0.8	1.5
Arizona	7.8	13.6
Arkansas	4.6	8.1
California	428.3	749.5
Colorado	33.3	58.3
Connecticut	39.5	69.1
Delaware	10.9	19.0
Dist. of Col	6.5	11.4
Florida	15.5	27.1
Georgia	4.1	7.2
Hawaii	0.0	0.0
Idaho	7.9	13.8
Illinois	231.0	404.2
Indiana	115.0	201.2
Iowa	92.4	161.7
Kansas	11.3	19.8
Kentucky	68.1	119.2
Louisiana	15.0	26.3
Maine	13.3	23.2
Maryland	61.4	107.5
Massachusetts	75.4	132.0
Michigan	92.5	161.9
Minnesota	124.3	217.5
Mississippi	0.3	0.5
Missouri	45.5	79.5
Montana	0.9	1.6
Nebraska	66.8	116.9
Nevada	16.8	29.4
New Hampshir	10.8	18.9
New Jersey	119.0	208.2
New Mexico	21.4	37.4
New York	161.1	281.9
North Caroli	11.4	20.0
North Dakota	10.0	17.5
Ohio	231.6	405.2
Oklahoma	0.0	0.0
Oregon	38.7	67.7
Pennsylvania	136.4	238.6
Rhode Island	11.4	19.9
South Caroli	0.0	0.0
South Dakota	28.7	50.1
Tennessee	38.0	66.5
Texas	168.2	294.3
Utah	1.3	2.3
Vermont	0.0	0.0
Virginia	75.1	131.4
Washington	85.8	150.2
West Virgini	7.5	13.2
Wisconsin	29.0	50.8
Wyoming	9.3	16.2
Total	2,834	4,960

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DOE Energy Demand Policy, PO-50

Analysis Memorandum: A Comparison of Fuel Ethanol Supply And Demand Due To RFG And Gasohol

Abstract

Adoption of EPA's renewable oxygenate proposal would increase demand for ethanol by 200 to 800 million gallon per year nationally, depending on the level of opt-in and on California's status under the proposal. Ethanol production capacity may be inadequate to meet demand if California is subject to the requirements of the renewable oxygenate proposal along with the other states.

Introduction:

This is an analysis of the implications for the supply and demand for ethanol of the December 15, 1993, EPA proposal to mandate the use of ethanol in reformulated gasoline. The analysis focuses on a comparison of volumes of fuel ethanol use in non-attainment areas (NAAs) under the current regime and under the renewable oxygenate proposal. The focus on non-attainment areas is dictated by uncertainty about the effect of the proposal on the ethanol content of gasoline in areas not receiving RFG.

Preliminary analysis indicated that California, because of its large gasoline consumption, will have a major impact on ethanol market under the renewable oxygenate proposal if it is included. For that reason two parallel cases were analyzed: a Base Case which includes the fifty states and the District of Columbia and an ex-California Case excluding California from the ethanol proposal while accounting for gasoline and gasohol in the state.

An excess of supply or demand for ethanol is calculated by state for both the Base Case and the ex-California Case for 9 city and Full Opt-In scenarios. The excess supply or demand in a state was calculated as the difference between the ethanol production capacity in the state and the ethanol demand in the state. The difference in demand for ethanol in non-attainment areas currently and under the proposal was also calculated.

Key Assumptions:

- 1992 motor fuel use patterns hold for future years.
- 1992 gasohol sales account for total fuel ethanol use.¹
- Ethanol demand due to oxygenated gasoline (OG) for winter CO control is ignored.²
- Volume of fuel consumed is proportional to population (i.e., if 60% of a state's population is in a non-attainment area then 60% of its gasoline demand is assumed to be met with RFG and 40% with either conventional gasoline or gasohol).
- Gasohol sales are evenly distributed within a state. Attainment areas and non-attainment areas are assumed to use gasohol in proportion to their populations.
- Use of gasohol outside of non-attainment areas will not change as a result of the renewable oxygenate proposal. This implies that excess demand will be met from production capacity.
- For RFG, the averaging standard for renewable oxygenates (2.1% by wt in 30% of RFG) is used; the every-gallon standard is 2.0% wt.
- 1995 fuel ethanol production capacity figures were derived as follows³: all currently operable capacity (1.393 MMM gal/yr) was considered to be available for 1995 as was capacity now under construction (0.216 MMM gal/yr) for a

¹ Gasohol sales volume data are from the Federal Highway Administration. The data for 1992 are the latest available from FHA, which no longer publishes gasohol data. These values understate gasohol use because they are based on tax data. States which tax gasoline and gasohol at the same rate have commingled data. Information Resources, Inc. (IRI) may have current data on ethanol use in fuels available for purchase.

² The CAA mandated use of oxygenates during the winter in thirty-nine CO non-attainment areas went into effect on November 1, 1992. That requirement (oxygen at 2.7% wt) can be met with gasohol (oxygen at 3.5% wt). At most, two months of the 1992 gasohol data include gasohol sold specifically to satisfy this mandate.

³ These capacities, from IRI data, appear to be nameplate capacities and, if so, should be adjusted for downtime. This has not been done in the spreadsheet because I do not know the magnitude of the appropriate adjustment factor.

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total of 1.609 billion gallons/year. This is referred to as the Operable Capacity in the spreadsheet and below.⁴

- Some of the largest ethanol facilities are wet-mill processing facilities which presumably currently divert some of their ethanol production capacity to other uses (e.g., corn syrup). This implies that there is significant ethanol capacity not currently used for fuels which could quickly become available to the fuel market.

Results:

- Only Illinois, Indiana and Ohio use more ethanol currently in non-attainment areas than they would under the proposal.
- Southern and East Coast states and California would use more ethanol in non-attainment areas under the proposal than they do currently.

Additional NA Area Demand For Fuel Ethanol Under
Renewable Oxygenate Proposal -- Top 5 States
(MM gal/yr)

State	9 City	Full Opt-in
CA	137	225
NY	65	79
PA	27	70
TX	29	68
NJ	58	61

⁴ Additional ethanol capacity appears in the spreadsheet as "Potential Additional Capacity" and comprises the capacity of the three largest closed ethanol facilities. This capacity was considered to be potentially available in 1995 (0.101 MMM gal/yr) since the facilities have sufficient scale to operate successfully. The closed facilities are older than average and would likely have higher operating costs. The sum of the Operable Capacity and this 101 million gallons of additional ethanol capacity (1.710 billion gallons per year) represents the maximum projected fuel ethanol capacity considered in this analysis.

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- Total ethanol demand within non-attainment areas will increase by between 300 and 800 million gal/yr relative to current use under the proposal in the Base Case, depending on level of opt-in.⁵ (ex-CA Case: 200 to 560 MM gal/yr.)
- Total mandated ethanol use is 460 million to 1.1 billion gal/yr under the proposal in the Base Case, depending on level of opt-in. (ex-CA Case: 320 to 920 MM gal/yr.)
- California's inclusion or exclusion in the analysis has a major effect on the results in the aggregate. Under full opt-in with expected capacity there is a net shortage of ethanol when California is included in the analysis. Under the maximum capacity scenario there is no net shortage. The following tables show the sensitivity of the aggregate values to California RFG.

Aggregate Supply
Base Case Results
(MM gal/yr)

	9 City	Full Opt-in
Expected Capacity	393	-63
Maximum Capacity	494	38

Aggregate Supply
ex-CA Results
(MM gal/yr)

	9 City	Full Opt-in
Expected Capacity	530	162
Maximum Capacity	631	263

⁵ The assumption that ethanol use outside of attainment areas will not change as a result of the proposal implies that the change in aggregate ethanol demand is equal to the change in the sum of changes in demand for non-attainment areas for a given case, capacity and opt-in scenario.

Fuel Ethanol Usage Spreadsheet:

ASSUMPTIONS:

Fuel use is distributed through states in proportion to population.
Population fraction = fuel fraction.

BASE CASE: Assumes all CA uses RFG only in non-attainment areas.

Volumes in millions of gallons.

State	1995	1995 EtOH	FHA	EtOH	FHA	Popul. based		RFG sales with 1992	
	Fuel EtOH Operatio Capacity	Potenti Add'l Capacity	1992 Gasohol Sales		1992 Gasoline Sales	RFG Fraction	gasoline pool	fuel volume (fract* (gas'+1+gas'h1))	9 city
Alabama	0.0	0.0	280.7	28.1	2,195.4	0	0.298	0.0	737.9
Alaska	0.0	0.0	0.0	0.0	273.4	0	0	0.0	0.0
Arizona	0.0	0.0	0.0	0.0	1,796.1	0	0	0.0	0.0
Arkansas	0.0	0.0	24.5	2.5	1,286.5	0	0.021	0.0	27.5
California	5.3	0.0	59.5	5.9	13,642.4	0.57	0.935	7,810.1	12,811.2
Colorado	0.0	0.0	142.0	14.2	1,557.4	0	0	0.0	0.0
Connecticut	0.0	0.0	50.4	5.0	1,411.2	0.625	0.625	913.5	913.5
Delaware	0.0	0.0	0.0	0.0	353.1	0.659	0.829	232.7	292.7
Dist. of Co	0.0	0.0	0.0	0.0	176.4	0	1	0.0	176.4
Florida	0.0	0.0	86.3	8.6	6,262.3	0	0.405	0.0	2,571.2
Georgia	0.0	0.0	23.0	2.3	3,616.7	0	0.432	0.0	1,572.3
Hawaii	0.0	0.0	0.0	0.0	398.0	0	0	0.0	0.0
Idaho	7.0	0.0	44.0	4.4	519.2	0	0	0.0	0.0
Illinois	702.5	0.0	1,567.1	156.7	4,620.2	0.641	0.693	3,966.1	4,287.8
Indiana	75.0	0.0	642.3	64.2	2,752.3	0.11	0.459	373.4	1,558.1
Iowa	374.0	0.0	514.4	51.4	1,391.5	0	0	0.0	0.0
Kansas	34.9	0.0	63.0	6.3	1,221.7	0	0.244	0.0	313.5
Kentucky	0.0	0.0	364.8	36.5	1,909.7	0	0.494	0.0	1,123.6
Louisiana	0.0	76.0	83.6	8.4	1,950.2	0	0.161	0.0	327.4
Maine	0.0	0.0	0.0	0.0	612.5	0	0.411	0.0	251.7
Maryland	0.0	0.0	0.0	0.0	2,126.6	0.522	0.888	1,110.1	1,888.4
Massachuset	0.0	0.0	0.0	0.0	2,413.1	0	0.847	0.0	2,043.9
Michigan	0.0	0.0	514.8	51.5	4,419.2	0	0.589	0.0	2,906.1
Minnesota	58.9	0.0	651.0	65.1	2,167.1	0	0	0.0	0.0
Mississippi	0.0	0.0	0.0	0.0	1,336.6	0	0.027	0.0	36.1
Missouri	0.0	0.0	253.0	25.3	2,844.7	0	0.551	0.0	1,706.8
Montana	2.0	0.0	5.0	0.5	465.1	0	0	0.0	0.0
Nebraska	183.5	0.0	371.8	37.2	786.8	0	0	0.0	0.0
Nevada	0.0	0.0	71.7	7.2	702.1	0	0	0.0	0.0
New Hampshi	0.0	0.0	0.0	0.0	527.7	0	0.562	0.0	296.6
New Jersey	0.0	0.0	0.0	0.0	3,369.9	0.948	1	3,194.7	3,369.9
New Mexico	12.0	0.0	108.6	10.9	857.9	0	0	0.0	0.0
New York	0.0	0.0	0.0	0.0	5,653.3	0.642	0.778	3,629.4	4,398.2
North Carol	0.0	0.0	29.3	2.9	3,371.3	0	0.439	0.0	1,492.9
North Dakot	39.0	0.0	55.8	5.6	360.7	0	0	0.0	0.0
Ohio	65.0	0.0	1,249.0	124.9	4,737.2	0	0.748	0.0	4,477.7
Oklahoma	0.0	0.0	0.0	0.0	1,744.4	0	0	0.0	0.0
Oregon	0.0	0.0	191.2	19.1	1,380.0	0	0	0.0	0.0
Pennsylvani	0.0	0.0	0.0	0.0	4,701.9	0.317	0.828	1,490.5	3,893.2
Rhode Islan	0.0	0.0	0.0	0.0	382.6	0	0.9	0.0	344.3
South Carol	0.0	0.0	0.0	0.0	1,872.3	0	0.216	0.0	404.4
South Dakot	6.0	0.0	159.5	15.9	410.7	0	0	0.0	0.0
Tennessee	40.0	25.0	194.3	19.4	2,562.9	0	0.496	0.0	1,367.6
Texas	0.0	0.0	247.8	24.8	8,695.7	0.216	0.496	1,931.8	4,436.0
Utah	0.0	0.0	2.5	0.3	782.5	0	0.53	0.0	416.0
Vermont	0.0	0.0	0.0	0.0	299.5	0	0	0.0	0.0
Virginia	0.0	0.0	103.4	10.3	3,093.8	0	0.612	0.0	1,956.7
Washington	4.2	0.0	422.8	42.3	2,413.3	0	0	0.0	0.0
West Virgin	0.0	0.0	42.0	4.2	857.7	0	0.283	0.0	254.6
Wisconsin	0.0	0.0	160.0	16.0	2,170.4	0.349	0.391	813.3	911.2
Wyoming	0.0	0.0	51.7	5.2	321.0	0	0	0.0	0.0
Total	1,609	101	8,831	883	115,774			25,465	63,566

Fuel Ethanol Usage Spreadsheet (cont'd):

Base Case.

State	EtOH in RFG under mandate		Current Fuel EtOH use in RFG areas		EtOH Difference in RFG areas (Current-RFG)		AT '95 OPER. EtOH CAP Supply (Demand) of EtOH assuming use of gasohol at 1992 level out of RFG ar			AT '95 MAX CAP. Supply (Demand) of EtOH assuming use of gasohol at 1992 level out of RFG areas	
	9 city	Full	9 city	Full	9 city	Full opt.	9 city	Full	opt-in	9 city	Full opt-in
Alabama	0.0	13.3	0.0	8.4	0.0	(4.9)	(28.1)	(33.0)		(28.1)	(33.0)
Alaska	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Arizona	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Arkansas	0.0	0.5	0.0	0.1	0.0	(0.4)	(2.5)	(2.9)		(2.5)	(2.9)
California	140.6	230.6	3.4	5.6	(137.2)	(225.0)	(137.8)	(225.7)		(137.8)	(225.7)
Colorado	0.0	0.0	0.0	0.0	0.0	0.0	(14.2)	(14.2)		(14.2)	(14.2)
Connecticut	16.4	16.4	3.1	3.1	(13.3)	(13.3)	(18.3)	(18.3)		(18.3)	(18.3)
Delaware	4.2	5.3	0.0	0.0	(4.2)	(5.3)	(4.2)	(5.3)		(4.2)	(5.3)
Dist. of	0.0	3.2	0.0	0.0	0.0	(3.2)	0.0	(3.2)		0.0	(3.2)
Florida	0.0	46.3	0.0	3.5	0.0	(42.8)	(8.6)	(51.4)		(8.6)	(51.4)
Georgia	0.0	28.3	0.0	1.0	0.0	(27.3)	(2.3)	(29.6)		(2.3)	(29.6)
Hawaii	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Idaho	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6		2.6	2.6
Illinois	71.4	77.2	100.5	108.6	29.1	31.4	574.9	577.2		574.9	577.2
Indiana	6.7	28.0	7.1	29.5	0.3	1.4	11.1	12.2		11.1	12.2
Iowa	0.0	0.0	0.0	0.0	0.0	0.0	322.6	322.6		322.6	322.6
Kansas	0.0	5.6	0.0	1.5	0.0	(4.1)	28.6	24.5		28.6	24.5
Kentucky	0.0	20.2	0.0	18.0	0.0	(2.2)	(36.5)	(38.7)		(36.5)	(38.7)
Louisiana	0.0	5.9	0.0	1.3	0.0	(4.5)	(8.4)	(12.9)		67.6	63.1
Maine	0.0	4.5	0.0	0.0	0.0	(4.5)	0.0	(4.5)		0.0	(4.5)
Maryland	20.0	34.0	0.0	0.0	(20.0)	(34.0)	(20.0)	(34.0)		(20.0)	(34.0)
Massachus	0.0	36.8	0.0	0.0	0.0	(36.8)	0.0	(36.8)		0.0	(36.8)
Michigan	0.0	52.3	0.0	30.3	0.0	(22.0)	(51.5)	(73.5)		(51.5)	(73.5)
Minnesota	0.0	0.0	0.0	0.0	0.0	0.0	(6.2)	(6.2)		(6.2)	(6.2)
Mississippi	0.0	0.6	0.0	0.0	0.0	(0.6)	0.0	(0.6)		0.0	(0.6)
Missouri	0.0	30.7	0.0	13.9	0.0	(16.8)	(25.3)	(42.1)		(25.3)	(42.1)
Montana	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5		1.5	1.5
Nebraska	0.0	0.0	0.0	0.0	0.0	0.0	146.3	146.3		146.3	146.3
Nevada	0.0	0.0	0.0	0.0	0.0	0.0	(7.2)	(7.2)		(7.2)	(7.2)
New Hamps	0.0	5.3	0.0	0.0	0.0	(5.3)	0.0	(5.3)		0.0	(5.3)
New Jersey	57.5	60.7	0.0	0.0	(57.5)	(60.7)	(57.5)	(60.7)		(57.5)	(60.7)
New Mexico	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1		1.1	1.1
New York	65.3	79.2	0.0	0.0	(65.3)	(79.2)	(65.3)	(79.2)		(65.3)	(79.2)
North Car	0.0	26.9	0.0	1.3	0.0	(25.6)	(2.9)	(28.5)		(2.9)	(28.5)
North Dak	0.0	0.0	0.0	0.0	0.0	0.0	33.4	33.4		33.4	33.4
Ohio	0.0	80.6	0.0	93.4	0.0	12.8	(59.9)	(47.1)		(59.9)	(47.1)
Oklahoma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Oregon	0.0	0.0	0.0	0.0	0.0	0.0	(19.1)	(19.1)		(19.1)	(19.1)
Pennsylvania	26.8	70.1	0.0	0.0	(26.8)	(70.1)	(26.8)	(70.1)		(26.8)	(70.1)
Rhode Isl	0.0	6.2	0.0	0.0	0.0	(6.2)	0.0	(6.2)		0.0	(6.2)
South Car	0.0	7.3	0.0	0.0	0.0	(7.3)	0.0	(7.3)		0.0	(7.3)
South Dak	0.0	0.0	0.0	0.0	0.0	0.0	(9.9)	(9.9)		(9.9)	(9.9)
Tennessee	0.0	24.6	0.0	9.6	0.0	(15.0)	20.6	5.6		45.6	30.6
Texas	34.8	79.8	5.4	12.3	(29.4)	(67.6)	(54.2)	(92.3)		(54.2)	(92.3)
Utah	0.0	7.5	0.0	0.1	0.0	(7.4)	(0.3)	(7.6)		(0.3)	(7.6)
Vermont	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Virginia	0.0	35.2	0.0	6.3	0.0	(28.9)	(10.3)	(39.2)		(10.3)	(39.2)
Washingto	0.0	0.0	0.0	0.0	0.0	0.0	(38.1)	(38.1)		(38.1)	(38.1)
West Virg	0.0	4.6	0.0	1.2	0.0	(3.4)	(4.2)	(7.6)		(4.2)	(7.6)
Wisconsin	14.6	16.4	5.6	6.3	(9.1)	(10.1)	(25.1)	(26.1)		(25.1)	(26.1)
Wyoming	0.0	0.0	0.0	0.0	0.0	0.0	(5.2)	(5.2)		(5.2)	(5.2)
Total	458	1,144	125	355	(333)	(789)	393	(63)		494	38

Fuel Ethanol Usage Spreadsheet:

ASSUMPTIONS:

Fuel use is distributed through states in proportion to population.
Population fraction = fuel fraction.

EX-CA CASE: Assumes CA uses no RFG.

Volumes in millions of gallons.

State	1995	1995	EtOH	FHA	EtOH	FHA	Popul. based		RFG sales with 1992	
	Fuel Operatio	EtOH Add'l Capacity	Potenti Capacity	1992 Gasohol Sales		1992 Gasohol Sales	RFG Fraction gasoline pool	Full op	fuel volume (gas'l+gas'hl)	Full opt-in
Alabama	0.0	0.0	280.7	28.1	2,195.4	0	0.298	0.0	737.9	
Alaska	0.0	0.0	0.0	0.0	273.4	0	0	0.0	0.0	
Arizona	0.0	0.0	0.0	0.0	1,796.5	0	0	0.0	0.0	
Arkansas	0.0	0.0	24.5	2.5	1,286.5	0	0.021	0.0	27.5	
California	5.3	0.0	59.5	5.9	13,642.4	0	0	0.0	0.0	
Colorado	0.0	0.0	142.0	14.2	1,557.4	0	0	0.0	0.0	
Connecticut	0.0	0.0	50.4	5.0	1,411.2	0.625	0.625	913.5	913.5	
Delaware	0.0	0.0	0.0	0.0	353.1	0.659	0.829	232.7	292.7	
Dist. of Co	0.0	0.0	0.0	0.0	176.4	0	1	0.0	176.4	
Florida	0.0	0.0	86.3	8.6	6,262.3	0	0.405	0.0	2,571.2	
Georgia	0.0	0.0	23.0	2.3	3,616.7	0	0.432	0.0	1,572.3	
Hawaii	0.0	0.0	0.0	0.0	398.0	0	0	0.0	0.0	
Idaho	7.0	0.0	44.0	4.4	519.2	0	0	0.0	0.0	
Illinois	702.5	0.0	1,567.1	156.7	4,620.2	0.641	0.693	3,966.1	4,287.8	
Indiana	75.0	0.0	642.3	64.2	2,752.3	0.11	0.459	373.4	1,558.1	
Iowa	374.0	0.0	514.4	51.4	1,391.5	0	0	0.0	0.0	
Kansas	34.9	0.0	63.0	6.3	1,221.7	0	0.244	0.0	313.5	
Kentucky	0.0	0.0	364.8	36.5	1,909.7	0	0.494	0.0	1,123.6	
Louisiana	0.0	76.0	83.6	8.4	1,950.2	0	0.161	0.0	327.4	
Maine	0.0	0.0	0.0	0.0	612.5	0	0.411	0.0	251.7	
Maryland	0.0	0.0	0.0	0.0	2,126.6	0.522	0.888	1,110.1	1,888.4	
Massachuset	0.0	0.0	0.0	0.0	2,413.1	0	0.847	0.0	2,043.9	
Michigan	0.0	0.0	514.8	51.5	4,419.2	0	0.589	0.0	2,906.1	
Minnesota	58.9	0.0	651.0	65.1	2,167.1	0	0	0.0	0.0	
Mississippi	0.0	0.0	0.0	0.0	1,336.6	0	0.027	0.0	36.1	
Missouri	0.0	0.0	253.0	25.3	2,844.7	0	0.551	0.0	1,706.8	
Montana	2.0	0.0	5.0	0.5	465.1	0	0	0.0	0.0	
Nebraska	183.5	0.0	371.8	37.2	786.8	0	0	0.0	0.0	
Nevada	0.0	0.0	71.7	7.2	702.1	0	0	0.0	0.0	
New Hampshi	0.0	0.0	0.0	0.0	527.7	0	0.562	0.0	296.6	
New Jersey	0.0	0.0	0.0	0.0	3,369.9	0.948	1	3,194.7	3,369.9	
New Mexico	12.0	0.0	108.6	10.9	857.9	0	0	0.0	0.0	
New York	0.0	0.0	0.0	0.0	5,653.3	0.642	0.778	3,629.4	4,398.2	
North Carol	0.0	0.0	29.3	2.9	3,371.3	0	0.439	0.0	1,492.9	
North Dakot	39.0	0.0	55.8	5.6	360.7	0	0	0.0	0.0	
Ohio	65.0	0.0	1,249.0	124.9	4,737.2	0	0.748	0.0	4,477.7	
Oklahoma	0.0	0.0	0.0	0.0	1,744.4	0	0	0.0	0.0	
Oregon	0.0	0.0	191.2	19.1	1,380.0	0	0	0.0	0.0	
Pennsylvania	0.0	0.0	0.0	0.0	4,701.9	0.317	0.828	1,490.5	3,893.2	
Rhode Islan	0.0	0.0	0.0	0.0	382.6	0	0.9	0.0	344.3	
South Carol	0.0	0.0	0.0	0.0	1,872.3	0	0.216	0.0	404.4	
South Dakot	6.0	0.0	159.5	15.9	410.7	0	0	0.0	0.0	
Tennessee	40.0	25.0	194.3	19.4	2,562.9	0	0.496	0.0	1,367.6	
Texas	0.0	0.0	247.8	24.8	8,695.7	0.216	0.496	1,931.8	4,436.0	
Utah	0.0	0.0	2.5	0.3	782.5	0	0.53	0.0	416.0	
Vermont	0.0	0.0	0.0	0.0	299.5	0	0	0.0	0.0	
Virginia	0.0	0.0	103.4	10.3	3,093.8	0	0.612	0.0	1,956.7	
Washington	4.2	0.0	422.8	42.3	2,413.3	0	0	0.0	0.0	
West Virgin	0.0	0.0	42.0	4.2	857.7	0	0.283	0.0	254.6	
Wisconsin	0.0	0.0	160.0	16.0	2,170.4	0.349	0.391	813.3	911.2	
Wyoming	0.0	0.0	51.7	5.2	321.0	0	0	0.0	0.0	
Total	1,609	101	8,831	883	115,774			17,655	50,754	

Fuel Ethanol Usage Spreadsheet (cont'd):

Ex-CA Case.

State	EtOH in RFG under mandate		Current Fuel EtOH use in RFG areas		EtOH Difference in RFG areas (Current-RFG)		AT '95 OPER. EtOH CAP Supply (Demand) of EtOH assuming use of gasohol at 1992 level outside RFG ar		AT '95 MAX CAP. Supply (Demand) of EtOH assuming use of gasohol at 1992 level out of RFG areas	
	9 city	Full op	9 cit	Full	9 city	Full opt	9 city	Full opt-in	9 city	Full opt-in
Alabama	0.0	13.3	0.0	8.4	0.0	(4.9)	(28.1)	(33.0)	(28.1)	(33.0)
Alaska	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arizona	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arkansas	0.0	0.5	0.0	0.1	0.0	(0.4)	(2.5)	(2.9)	(2.5)	(2.9)
California	0.0	0.0	0.0	0.0	0.0	0.0	(0.6)	(0.6)	(0.6)	(0.6)
Colorado	0.0	0.0	0.0	0.0	0.0	0.0	(14.2)	(14.2)	(14.2)	(14.2)
Connecticut	16.4	16.4	3.1	3.1	(13.3)	(13.3)	(18.3)	(18.3)	(18.3)	(18.3)
Delaware	4.2	5.3	0.0	0.0	(4.2)	(5.3)	(4.2)	(5.3)	(4.2)	(5.3)
Dist. of	0.0	3.2	0.0	0.0	0.0	(3.2)	0.0	(3.2)	0.0	(3.2)
Florida	0.0	46.3	0.0	3.5	0.0	(42.8)	(8.6)	(51.4)	(8.6)	(51.4)
Georgia	0.0	28.3	0.0	1.0	0.0	(27.3)	(2.3)	(29.6)	(2.3)	(29.6)
Hawaii	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Idaho	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
Illinois	71.4	77.2	100.5	108.6	29.1	31.4	574.9	577.2	574.9	577.2
Indiana	6.7	28.0	7.1	29.5	0.3	1.4	11.1	12.2	11.1	12.2
Iowa	0.0	0.0	0.0	0.0	0.0	0.0	322.6	322.6	322.6	322.6
Kansas	0.0	5.6	0.0	1.5	0.0	(4.1)	28.6	24.5	28.6	24.5
Kentucky	0.0	20.2	0.0	18.0	0.0	(2.2)	(36.5)	(38.7)	(36.5)	(38.7)
Louisiana	0.0	5.9	0.0	1.3	0.0	(4.5)	(8.4)	(12.9)	67.6	63.1
Maine	0.0	4.5	0.0	0.0	0.0	(4.5)	0.0	(4.5)	0.0	(4.5)
Maryland	20.0	34.0	0.0	0.0	(20.0)	(34.0)	(20.0)	(34.0)	(20.0)	(34.0)
Massachus	0.0	36.8	0.0	0.0	0.0	(36.8)	0.0	(36.8)	0.0	(36.8)
Michigan	0.0	52.3	0.0	30.3	0.0	(22.0)	(51.5)	(73.5)	(51.5)	(73.5)
Minnesota	0.0	0.0	0.0	0.0	0.0	0.0	(6.2)	(6.2)	(6.2)	(6.2)
Mississip	0.0	0.6	0.0	0.0	0.0	(0.6)	0.0	(0.6)	0.0	(0.6)
Missouri	0.0	30.7	0.0	13.9	0.0	(16.8)	(25.3)	(42.1)	(25.3)	(42.1)
Montana	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5
Nebraska	0.0	0.0	0.0	0.0	0.0	0.0	146.3	146.3	146.3	146.3
Nevada	0.0	0.0	0.0	0.0	0.0	0.0	(7.2)	(7.2)	(7.2)	(7.2)
New Hamps	0.0	5.3	0.0	0.0	0.0	(5.3)	0.0	(5.3)	0.0	(5.3)
New Jerse	57.5	60.7	0.0	0.0	(57.5)	(60.7)	(57.5)	(60.7)	(57.5)	(60.7)
New Mexic	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
New York	65.3	79.2	0.0	0.0	(65.3)	(79.2)	(65.3)	(79.2)	(65.3)	(79.2)
North Car	0.0	26.9	0.0	1.3	0.0	(25.6)	(2.9)	(28.5)	(2.9)	(28.5)
North Dak	0.0	0.0	0.0	0.0	0.0	0.0	33.4	33.4	33.4	33.4
Ohio	0.0	80.6	0.0	93.4	0.0	12.8	(59.9)	(47.1)	(59.9)	(47.1)
Oklahoma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	0.0	0.0	0.0	0.0	0.0	0.0	(19.1)	(19.1)	(19.1)	(19.1)
Pennsylv	26.8	70.1	0.0	0.0	(26.8)	(70.1)	(26.8)	(70.1)	(26.8)	(70.1)
Rhode Isl	0.0	6.2	0.0	0.0	0.0	(6.2)	0.0	(6.2)	0.0	(6.2)
South Car	0.0	7.3	0.0	0.0	0.0	(7.3)	0.0	(7.3)	0.0	(7.3)
South Dak	0.0	0.0	0.0	0.0	0.0	0.0	(9.9)	(9.9)	(9.9)	(9.9)
Tennessee	0.0	24.6	0.0	9.6	0.0	(15.0)	20.6	5.6	45.6	30.6
Texas	34.8	79.8	5.4	12.3	(29.4)	(67.6)	(54.2)	(92.3)	(54.2)	(92.3)
Utah	0.0	7.5	0.0	0.1	0.0	(7.4)	(0.3)	(7.6)	(0.3)	(7.6)
Vermont	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Virginia	0.0	35.2	0.0	6.3	0.0	(28.9)	(10.3)	(39.2)	(10.3)	(39.2)
Washingto	0.0	0.0	0.0	0.0	0.0	0.0	(38.1)	(38.1)	(38.1)	(38.1)
West Virg	0.0	4.6	0.0	1.2	0.0	(3.4)	(4.2)	(7.6)	(4.2)	(7.6)
Wisconsin	14.6	16.4	5.6	6.3	(9.1)	(10.1)	(25.1)	(26.1)	(25.1)	(26.1)
Wyoming	0.0	0.0	0.0	0.0	0.0	0.0	(5.2)	(5.2)	(5.2)	(5.2)
Total	318	914	122	350	(196)	(564)	530	162	631	263

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Jan. 25, 1994

Mr. Barry McNutt
U.S. Department of Energy
PO-50
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Barry:

Attached are three tables (Tables I-III) which present estimates of the total energy, fossil energy, and oil required to deliver equal Btu reformulated gasolines (RFGs), as well as the CO₂-equivalent emissions associated with the production and use of these RFGs. RFGs produced with MTBE, ETBE, and ethanol for summer and winter use are included, as is conventional gasoline (CG).

The energy and oil use estimates for the summer fuels with MTBE, ETBE with "new ethanol", and ethanol with "new ethanol" have been documented in prior analysis (e.g., in a paper appearing in Fuels Reformulation, in a paper presented at the ISAF conference, and in an ANL formal report). Use of the term "new ethanol" indicates that the estimate to which it applies assumes that the ethanol used in the RFG will be produced incrementally to that ethanol now being produced in the country.

The energy and oil estimates for the summer fuels with "old ethanol" are new. The estimates are based on the "new ethanol" estimates but assume that the ethanol used in the RFG is diverted from current use. Since this ethanol is already being produced, the energy required to produce it is not included. However, the energy required to supply CG to replace ethanol in areas of the country from which it is diverted is accounted for in the RFG analysis. Thus, sufficient CG to replace the ethanol energy in the RFG with ethanol or RFG with ETBE is included in the estimates of RFGs made with "old ethanol".

The energy and oil estimates for the winter fuels are also new. They are derived from energy balances for the production of RFG vs. CG in the winter for PADD II refineries. These balances were derived by Turner Mason (TM) using the same model and assumptions as were used to derive the energy balances for our summer fuels analysis. However TM did not include RFG produced with ethanol in its winter analysis. ORNL developed estimates for RFG with MTBE and RFG with ethanol for PADD III using a different model. We applied the increment that ORNL

estimated between RFG with MTBE and RFG with ethanol to the RFG with MTBE estimates derived from TM to develop the RFG with ethanol estimates presented here. The "new ethanol" vs. "old ethanol" rationale described above also applies to the winter RFGs.

The fossil energy requirements are also new. We have simply subtracted the ethanol energy in the revised fuel volumes (including the ethanol in ETBE) from the total energy estimate in order to develop these estimates.

The CO₂-equivalent emissions are also new. These estimates are derived using Mark DeLuchi's GHG emissions model. DeLuchi's model can be used to develop a series of estimates. In this analysis, we developed individual estimates of the CO₂-equivalent emissions associated with HCs, ethanol, ETBE, and MTBE. We vary the CO₂-equivalent emissions estimates associated with HC production since the energy required to produce the HCs for various RFGs and CG varies. All the estimates are derived in terms of gram CO₂-equivalent emissions/Btu of fuel and thus are applied to the energy content of the revised fuel volume required to deliver equal Btu. The estimates do not include CO₂-equivalent emissions associated with vehicle production, but do include emissions associated with vehicle operation.

In Table III, we have annualized the effects of use of the individual summer and winter fuels by assuming that the summer fuels are used for five months and the winter fuels for the remainder of the year. The results indicate that if all the ethanol is "new", EPA's proposal would result in greater total energy use (1.6%), greater oil use (3.2%), and higher CO₂-equivalent emissions (1.0%). If all the ethanol is "old", energy use is lower (0.6%) as is CO₂ (0.1% lower), but oil use is higher (7.3%). In order for the CO₂-equivalent emissions to be equal or better under the "new ethanol" estimates, ethanol's CO₂-equivalent emissions would have to be lower by 18.2%.



Margaret Singh

TABLE I. FUEL VOLUMES AND ENERGY CONTENT FOR 2.1% RFG

FUEL TYPE	COMPO- NENTS	ENERGY CONTENT		REVISED ENERGY CONTENT OF FUEL (FEEDSTOCK)	OIL CONTENT OF EQUAL BTU RFG	ENERGY REQ'D TO PRODUCE EQUAL BTU RFG	OIL REQ'D TO PRODUCE EQUAL BTU RFG	TOTAL ENERGY REQUIRED TO DELIVER EQUAL BTU RFG	TOTAL FOSBIL ENERGY REQUIRED TO DELIVER EQUAL BTU RFG	TOTAL OIL REQUIRED TO DELIVER EQUAL BTU RFG	CO2 EMISSIONS EQUIVALENT	
		INITIAL VOLUME GALLONS	REVISD VOL TO DELIVER EQUAL BTU AS RFG WITH MTBE ONLY GALLONS									
SUMMER FUEL ANALYSIS												
RFG												
WITH MTBE	HC*	0.883	101142	101142	15898	9080	117138	117138	117138	110202	8828	
AT 2.1% O2	MTBE	0.117	10912	847	2037	0	12849	12849	12849	847	1034	
TOTAL		1.000	112053	101789	18033	9080	130087	130087	130087	110849	10881	
RFG												
WITH ETBE	HC*	0.867	98272	99175	15469	8607	114643	114643	114643	107842	8601	
AT 2.1% O2	ETBE	0.133	12881	12079	4203	303	12808	12808	12808	1337	1337	
(NEW ETOH)	TOTAL	1.000	112163	99840	19671	8970	131725	127452	108811	108811	10938	
WITH ETBE	HC*	0.867	98272	99175	15489	8607	114643	114643	114643	107842	8601	
AT 2.1% O2	ETBE	0.133	12881	12879	4203	303	12808	12808	12808	1337	1337	
(OLD ETOH)	CO	0.057	4277	0	3327	319	7800	3327	3327	319	524	
TOTAL		0.981	112183	104113	17008	9153	129059	133332	113287	113287	10827	
CO IN PAOD II												
WITH MTBE	HC*	0.880	112210	110218	17088	12957	127282	127282	127282	123173	10849	
AT 2.1% O2	MTBE	0.020	1871	1032	283	0	2101	2101	2101	1032	174	
TOTAL		1.000	114081	111248	17329	12957	129382	129382	129382	124205	10823	
WINTER FUEL ANALYSIS												
RFG												
WITH MTBE	HC*	0.883	101142	101142	13272	7880	114414	114414	114414	109002	9378	
AT 2.1% O2	MTBE	0.117	10912	10912	2093	0	13005	13005	13005	0	1034	
TOTAL		1.000	112053	101142	15365	7880	127418	127418	127418	109002	10411	
RFG												
WITH ETHANOL	HC*	0.840	107630	107518	14232	8535	121750	121750	119053	9989	9989	
AT 2.1% O2	ETOH	0.060	4540	3531	3531	339	8067	3531	339	339	556	
(NEW ETOH)	TOTAL	1.000	112170	107518	17763	8874	129817	125281	116392	10545	10545	
RFG												
WITH ETHANOL	HC*	0.840	107630	107518	14232	8535	121750	121750	118053	9989	9989	
AT 2.1% O2	ETOH	0.040	4540	4535	829	459	5165	0	0	4994	420	
(OLD ETOH)	CO	0.880	112170	112053	14861	8994	128915	128915	128915	121047	10415	
TOTAL		0.860	112210	110218	15294	11152	126510	126510	126510	121388	10356	
CO IN PAOD II												
WITH MTBE	HC*	0.880	112210	110218	15294	11152	126510	126510	126510	121388	10356	
AT 2.1% O2	MTBE	0.020	1871	1032	283	0	2101	2101	2101	1032	174	
TOTAL		1.000	114081	110623	15611	11152	127085	127085	127085	121775	10530	

TABLE II: RELATIVE RFG ENERGY CONTENT AND CO2 EMISSIONS: SUMMER AND WINTER FUELS

	TOTAL ENERGY USE VS. ENERGY USE VS. SUMMER RFG WITH MTBE	TOTAL FOSSIL ENERGY USE VS. SUMMER RFG WITH MTBE	TOTAL OIL USE VS. SUMMER RFG WITH MTBE	TOTAL CO2 EMISSIONS VS. SUMMER RFG WITH MTBE
SUMMER				
RFG W MTBE AT 2.1%	1.000	1.000	1.000	1.000
RFG W ETOH AT 2.1% (NEW ETOH)	1.013	0.980	0.982	1.007
RFG W ETOH AT 2.1% (OLD ETOH)	0.992	1.025	1.022	0.997
CG IN PADD II	0.995	0.995	1.120	0.996
WINTER				
RFG W MTBE AT 2.1%	0.979	0.979	0.983	0.959
RFG W ETOH AT 2.1% (NEW ETOH)	0.998	0.963	1.050	0.971
RFG W ETOH AT 2.1% (OLD ETOH)	0.976	0.976	1.092	0.959
CG IN PADD II	0.981	0.981	1.099	0.970

TABLE III: RELATIVE RFG ENERGY CONTENT AND CO2 EMISSIONS: ANNUAL USAGE

	TOTAL ENERGY USE VS. ANNUAL RFG WITH MTBE	TOTAL FOSSIL ENERGY USE VS. ANNUAL RFG WITH MTBE	TOTAL OIL USE VS. ANNUAL RFG WITH MTBE	TOTAL CO2 EMISSIONS VS. ANNUAL RFG WITH MTBE
ANNUAL				
RFG W MTBE	1.000	1.000	1.000	1.000
RFG WITH ETBE (SUMMER) AND ETOH (WINTER) (NEW ETOH)	1.016	0.982	1.032	1.010
RFG WITH ETBE (SUMMER) AND ETOH (WINTER) (OLD ETOH)	0.994	1.008	1.073	0.999
CG IN PADD II	0.999	0.999	1.119	1.005
ANNUAL (POINT ESTIMATE)				
RFG W MTBE	128530	128530	109771	10599
RFG WITH ETBE (SUMMER) AND ETOH (WINTER) (NEW ETOH)	130612	126186	113233	10709
RFG WITH ETBE (SUMMER) AND ETOH (WINTER) (OLD ETOH)	127808	129589	117805	10587
CG IN PADD II	128380	128380	122788	10652

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February 15, 1994

Mr. Barry McNutt
U.S. Department of Energy
PO-50
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Barry:

As requested, I am resubmitting several tables which present estimates of the total energy, fossil energy, and oil use required to deliver equal energy content RFGs as well as the CO₂-equivalent emissions associated with the production and use of these RFGs. The tables were originally sent to you on January 25, 1994. I have modified table and column headings, but have not revised any of the estimates originally submitted.

In Tables 5 and 6, I have added an evaluation of the implications of the EPA proposal to require that 30% of the RFGs be oxygenated with renewables (ethanol). The results indicate that there is no advantage with respect to CO₂-equivalent emissions and in fact CO₂-equivalent emissions could be 0.3%-0.4% higher than with year-round use of MTBE. Oil use is always higher (from 0.9% to 3.3%) under the proposal than with year-round use of MTBE.

If you have any questions, please call me.

Margaret Singh

TABLE 1. FUEL VOLUMES AND ENERGY CONTENT FOR RFG WITH 2.1% O₂ CONTENT
 (ENERGY, OIL, & CO₂-EQUIVALENT EMISSIONS FOR RFG VOLUMES WHICH CONTAIN THE SAME ENERGY AS RFG WITH MTBE)

FUEL TYPE	COMPO- NENTS	ENERGY CONTENT		REVISED ENERGY CONTENT	OIL CONTENT (FEEDSTOCK)	ENERGY REQUIRED TO PRODUCE	OIL REQUIRED TO PRODUCE	TOTAL ENERGY		TOTAL FOSM ENERGY		TOTAL OIL REQUIRED TO DELIVER RFG	CO ₂ - EQUIVALENT EMISSIONS
		INITIAL VOLUME GALLONS	OF INITIAL BTU AS RFG WITH 2.1% O ₂					BTU	BTU	BTU	BTU		
SUMMER FUELS ANALYSIS													
RFG	WITH MTBE	0.883	101142	0.883	101142	15396	8060	117138	117138	110202	8628		
	MTBE	0.117	10912	0.117	10912	2037	0	12849	12849	647	1034		
	TOTAL	1.000	112053	1.000	112053	18033	8060	130087	130087	110849	10661		
RFG	WITH ETBE	0.867	99272	0.865	99175	15469	8667	114643	114643	107642	9001		
	AT 2.1% O ₂	0.133	12691	0.133	12679	4203	4203	17081	17081	12608	859		
	(NEW ETOH)	1.000	112163	0.999	99840	15871	8970	131725	127452	106811	10838		
RFG	WITH ETBE	0.867	99272	0.868	99175	15469	8667	114643	114643	107642	9001		
	AT 2.1% O ₂	0.133	12691	0.133	12679	4203	4203	17081	17081	12608	859		
	(EXISTING ETOH)	0.957	4277	0.956	4273	3327	319	7800	7800	3327	319		
	CG	0.037	4277	0.037	4273	862	502	4835	4835	4775	413		
	TOTAL	0.981	112163	0.980	112053	17008	9153	128059	133332	113267	10827		
CG IN PAOD II	HC*	0.860	112210	0.983	110218	17089	12957	127282	127282	123173	10649		
	MTBE	0.020	1871	0.020	1832	263	0	2101	2101	1032	174		
	TOTAL	1.000	114081	0.982	111248	17329	12957	129382	129382	124205	10823		
WINTER FUELS ANALYSIS													
RFG	WITH MTBE	0.883	101142	0.883	101142	13272	7860	114414	114414	109602	8378		
	AT 2.1% O ₂	0.117	10912	0.117	10912	2093	0	13005	13005	647	1034		
	TOTAL	1.000	112053	1.000	112053	15365	7860	127418	127418	109602	10411		
RFG	WITH ETHANOL	0.938	107630	0.938	107518	14232	8535	121750	121750	116053	9889		
	AT 2.1% O ₂	0.060	4540	0.060	4535	3531	339	8007	8007	3531	339		
	(NEW ETOH)	1.000	112170	0.998	112053	17763	8874	129817	125281	116392	10545		
RFG	WITH ETHANOL	0.940	107630	0.938	107518	14232	8535	121750	121750	116053	9889		
	AT 2.1% O ₂	0.040	4540	0.040	4535	829	0	5105	5105	4894	420		
	(EXISTING ETOH)	0.980	112170	0.978	112053	14881	8984	126915	126915	121047	10415		
CG IN PAOD II	HC*	0.980	112210	0.983	110218	15294	11152	125510	125510	121398	10356		
	MTBE	0.020	1871	0.020	1837	317	0	2155	2155	407	174		
	TOTAL	1.000	114081	0.982	112053	15811	11152	127895	127895	121775	10530		

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS

EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

TABLE II: RELATIVE PER GALLON ENERGY CONTENT AND CO₂-EQUIVALENT EMISSIONS OF SUMMER AND WINTER RFGs: ALL VALUES PRESENTED ARE CALCULATED RELATIVE TO SUMMER RFG WITH MTBE

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO ₂ -EQUIVALENT EMISSIONS
SUMMER				
RFG W MTBE AT 2.1%	1.000	1.000	1.000	1.000
RFG W ETBE AT 2.1% (NEW ETOH)	1.013	0.980	0.982	1.007
RFG W ETBE AT 2.1% (EXISTING ETOH)	0.992	1.025	1.022	0.997
CG IN PADD II	0.995	0.995	1.120	0.996
WINTER				
RFG W MTBE AT 2.1%	0.979	0.979	0.983	0.959
RFG W ETOH AT 2.1% (NEW ETOH)	0.998	0.963	1.050	0.971
RFG W ETOH AT 2.1% (EXISTING ETOH)	0.976	0.976	1.092	0.959
CG IN PADD II	0.981	0.981	1.099	0.970

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS
 EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

TABLE III: PER GALLON ENERGY CONTENT AND CO2-EQUIVALENT EMISSIONS OF ANNUAL USE OF RFGs WITH SPECIFIC OXYGENATES (1)

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO2-EQUIVALENT EMISSIONS
RFG W MTBE AT 2.1%	128530	128530	109771	10599
RFG WITH ETBE (SUMMER) AND ETOH (WINTER) AT 2.1%	130612	126186	113233	10709
(NEW ETOH)				
RFG WITH ETBE (SUMMER) AND ETOH (WINTER) AT 2.1%	127808	129589	117805	10587
(EXISTING ETOH) CG IN PADD II	128380	128380	122788	10652

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS
EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

(1) Annual usage is determined by weighting summer fuels (Table 1) by 5 months and winter fuels (also Table 1) by 7 months.

TABLE IV: RELATIVE PER GALLON ENERGY CONTENT AND CO₂-EQUIVALENT EMISSIONS OF ANNUAL USAGE OF RFGs WITH SPECIFIC OXYGENATES: ALL VALUES PRESENTED ARE CALCULATED RELATIVE TO ANNUAL USE OF RFG WITH MTBE

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO ₂ -EQUIVALENT EMISSIONS
RFG W MTBE AT 2.1%	1.000	1.000	1.000	1.000
RFG WITH ETBE (SUMMER)	1.016	0.982	1.032	1.010
AND ETOH (WINTER) AT 2.1% (NEW ETOH)				
RFG WITH ETBE (SUMMER)	0.994	1.008	1.073	0.999
AND ETOH (WINTER) AT 2.1% (EXISTING ETOH)				
CG IN PADD II	0.999	0.999	1.119	1.005

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS
 EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

TABLE V : AVERAGE (PROGRAM-WIDE) ENERGY CONTENT AND CO2-EQUIVALENT EMISSIONS OF RFGs (ALL RFGs AT 2.1%)

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO2-EQUIVALENT EMISSIONS
RFG W MTBE (YEAR-ROUND)	128530	128530	109771	10599
RFG WITH ETBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1) (NEW ETOH)	129155	127827	110810	10632
RFG WITH ETBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1) (EXISTING ETOH)	128314	128848	112182	10595
RFG WITH ETOH (WINTER) AND MTBE (YEAR-ROUND) (1) (NEW ETOH)	129258	127898	111995	10640
RFG WITH ETOH (WINTER) AND MTBE (YEAR-ROUND) (1) (EXISTING ETOH)	128388	128388	113391	10602
CG IN PADD II	128380	128380	122788	10652

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS

EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

(1) 30% OF RFGs OXYGENATED WITH RENEWABLES PROGRAM-WIDE

TABLE VI : RELATIVE AVERAGE (PROGRAM-WIDE) ENERGY CONTENT AND CO2-EQUIVALENT EMISSIONS: ALL VALUES ARE CALCULATED RELATIVE TO YEAR-ROUND RFG WITH MTBE (ALL RFGs AT 2.1%)

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO2-EQUIVALENT EMISSIONS
RFG W MTBE (YEAR-ROUND)	1.000	1.000	1.000	1.000
RFG WITH ETBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	1.005	0.995	1.009	1.003
(NEW ETOH)				
RFG WITH ETBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	0.998	1.002	1.022	1.000
(EXISTING ETOH)				
RFG WITH ETOH (WINTER), AND MTBE (YEAR-ROUND) (1)	1.006	0.995	1.020	1.004
(NEW ETOH)				
RFG WITH ETOH (WINTER), AND MTBE (YEAR-ROUND) (1)	0.999	0.999	1.033	1.000
(EXISTING ETOH)				
CG IN PADD II	0.999	0.999	1.119	1.005

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS

EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

(1) 30% OF RFGs OXYGENATED WITH RENEWABLES PROGRAM-WIDE



Department of Energy
Washington, DC 20585

MEMORANDUM FOR WILLIAM WHITE
ROBERT NORDHAUS

FROM: Susan F. Tierney
Assistant Secretary
Office of Policy, Planning, and
Program Evaluation

SUBJECT: Energy, Oil and Greenhouse Gas Impacts of EPA's Ethanol Proposal

Summary

Please find attached a summary of an analysis of EPA's recent ethanol proposal. As indicated, the EPA proposal would not reduce oil use or greenhouse gas emissions, but could reduce fossil energy use. Since these results will be controversial and could undercut the legal basis for the proposal, I wanted to alert you to these findings and seek any comments you may have before releasing the analysis upon which the attached summary is based.

Because of the complicated nature of the analysis, we are planning to send it as a staff draft for peer review. It would be sent to selected experts in:

- o EE's Office of Transportation Technologies
- o Environmental Protection Agency
- o Department of Agriculture
- o American Petroleum Institute
- o Congressional Research Service

Because of the ongoing rulemaking, it is possible that EPA, or others, will place the staff draft in the rulemaking docket. If you have any comments on either the analysis summary or our plans for releasing the analysis, please let me know by March 4, 1994.

Background

On December 15, 1993, the Environmental Protection Agency finalized reformulated gasoline requirements. At the same time, it issued a notice of proposed rulemaking that would require ethanol in reformulated gasoline (30% of the oxygenate requirement must be met by domestic renewable sources). The proposal's legal basis rests on the assertion that ethanol will reduce oil use and cut emissions of greenhouse gases. However, the proposal admits there is substantial uncertainty about the impacts of ethanol use on oil use and greenhouse gas emissions and asks for comments.



On January 14, 1994, a public hearing was held on the proposal with 47 witnesses testifying. The testimony split along predictable lines. Ethanol and agriculture interests supported the proposal and claimed oil and greenhouse gas emissions benefits. Refiners and MTBE producers opposed it as illegal and claimed it would increase energy use and greenhouse gas emissions.

Estimated Impacts of Ethanol Proposal

The EPA ethanol proposal is estimated to increase ethanol use by between 30% and 90%. Under the most likely scenario, oil use and greenhouse gas emissions would increase (3% and 1% respectively) and fossil energy use would decrease (2%). Achieving positive greenhouse gas impacts would require that at least 25% of the ethanol used in reformulated gasoline be derived from cellulosic feedstocks. This is unlikely to occur until after the year 2000. There are no likely circumstances under which the proposal would reduce oil use.

Attachment

**IMPACT OF EPA RENEWABLE OXYGENATE PROPOSAL ON
ETHANOL DEMAND, ENERGY AND OIL USE, AND
GREENHOUSE GAS EMISSIONS**

SUMMARY OF ANALYSIS

**OFFICE OF ENERGY DEMAND POLICY
OFFICE OF POLICY, PLANNING AND PROGRAM EVALUATION
U.S. DEPARTMENT OF ENERGY
FEBRUARY 1994**

Background:

As a follow-up to earlier analysis¹ conducted by this office and in response to EPA's use of DOE's work² to support the current proposal, we revisited the questions of the impacts of ethanol use as an oxygenate in reformulated gasoline. This analysis^{3,4} uses the same methodology as previously developed⁵ but expands it to include greenhouse gas impacts and fossil energy use. The results are presented in terms of (1) increased annual demand for ethanol, (2) changes in fossil energy and oil use, and (3) changes in greenhouse gas emissions that would result from ethanol (and ETBE) use in lieu of MTBE in reformulated gasoline.

EPA Proposal:

EPA has proposed that 30% of the oxygenate used in reformulated gasoline must come from renewable sources.⁶ It is possible, in the long term, that methanol and ethanol produced from biomass resources or cellulosic feedstocks could be used to meet this requirement. However, it is not likely that significant quantities of biomass-based methanol or cellulosic ethanol will be produced until after 2000. Currently, the only renewable oxygenate is ethanol produced from corn and other food crops.

The EPA proposal further requires that, to satisfy this requirement during the summer, ethanol be used in the form of ETBE. During the winter, ethanol can be used directly without being converted to an ether. All reformulated gasoline must meet applicable performance requirements, i.e., no emissions waiver is proposed.

The proposal covers all federal reformulated gasoline but allows credits and trading among refiners, areas and seasons. With credit trading, it is possible that most of the ethanol used to meet the requirements could be used in one part of the country (e.g., the mid-west) or during one season (e.g., the winter).

EPA bases the proposal on Section 211k(1) of the Clean Air Act which allows EPA to consider "energy requirements" and other "nonair-quality environmental impacts" in setting reformulated gasoline requirements. EPA's technical support document concludes that the use of ethanol and ETBE in lieu of MTBE will reduce oil imports and CO₂ emissions. The technical support document and proposal, however, noted that these findings were uncertain and requested comments on the potential effect of the ethanol mandate on energy and oil use and greenhouse gas emissions.

DOE Analysis:

Issues Addressed - This analysis makes estimates of the impact of the EPA proposal on ethanol use, oil use, fossil energy use and greenhouse gas emissions. It also shows how different assumptions concerning the source of the ethanol (i.e., new ethanol production versus existing production) and use of the ethanol (i.e., annual versus winter only blending) affect these results.

Results-

- 1) (a) If the market responds to the mandate as EPA expects, annual ethanol demand could almost double under the Renewable Oxygenate Requirement (for year 2000, assuming full opt in to Federal reformulated gasoline program):

Current (1992) Use in Conventional <u>Gasoline Demand</u>	Total <u>RFG-Related Demand</u>	Incremental <u>RFG-Related Demand*</u>	<u>Change</u>
883 million gal.	1,144 million gal.	789 million gal.	+89%

- (b) However, if the market responds to the mandate by diverting ethanol from the existing conventional gasoline market, ethanol demand will be substantially less:

Current (1992) Use in Conventional <u>Gasoline Demand</u>	Total <u>RFG-Related Demand</u>	Incremental <u>RFG-Related Demand</u>	<u>Change</u>
883 million gal.	1,144 million gal.	261 million gal.	+30%

Since the total RFG-related ethanol demand is larger than current production, new ethanol production will be required even if no ethanol is used in conventional gasoline.

If the reformulated gasoline program does not expand from the mandated nine cities to full opt-in, then there could be no increase in ethanol demand.

- 2) If the market responds to the mandate as EPA expects (new production is used to meet most of the RFG-related requirement and seasonal credit trading does not take place), oil use and greenhouse gas emissions will increase and fossil energy use will decrease under the Renewable Oxygenate Requirement:

	<u>Conventional Gasoline</u>	<u>RFG w/MTBE</u>	<u>RFG w/ Ethanol (ETBE in summer)</u>	<u>Change **</u>
Oil (thousand BTU/gge***)	122.8	109.8	113.2	+3.2%

* Even under the first assumption, the incremental RFG-related ethanol demand is less than the total volume of ethanol used RFG. About 350 million gallons of ethanol is used in conventional gasoline markets that will become RFG markets. We have assumed that this ethanol will remain in the same geographical markets as they shift from conventional gasoline to RFG.

** The results presented above are on an annual per gallon basis. Program wide (average) impacts will be less (either positive or negative) as ethanol is mandated in only 30% of the reformulated gasoline pool.

*** gallons gasoline equivalent (RFG with 2.1% O₂)

Fossil Energy (thousand BTU/gge)	128.4	128.5	126.2	-1.8%
CO ₂ Equivalent Emissions (thousand gms/gge)	10.65	10.60	10.71	+1.0%

These results are driven by three primary factors:

- o Ethanol in winter RFG displaces far less gasoline than MTBE (5.5% ethanol versus 11% MTBE). In the summer, use of ETBE displaces slightly more gasoline than MTBE (13% vs. 11%).
 - o Ethanol use decreases fossil energy use because ethanol has a large solar (non-fossil) input embodied in the corn feedstock). However, the high energy requirement in crop production, fertilizers and ethanol production offset much of this embodied solar energy.
 - o Ethanol use increases CO₂ equivalent emissions despite the fossil energy gains because fertilizer production and use results in high greenhouse gas emissions and ethanol production uses coal, a high CO₂ fuel, as its main energy input.
- 3) If the market responds to the mandate by diverting ethanol from the existing gasohol market, fossil energy and oil use will increase and greenhouse gas emissions will remain essentially unchanged:

	Conventional <u>Gasoline</u>	<u>RFG w/MTBE</u>	<u>RFG w/ Ethanol</u> <u>(ETBE in summer)</u>	<u>Change</u> <u>*</u>
Oil (thousand BTU/gge)	122.8	109.8	117.8	+7.3%
Fossil Energy (Thousand BTU/gge)	128.4	128.5	129.6	+8%
CO ₂ Equivalent Emissions (thousand gms/gge)	10.65	10.60	10.59	-.1%

These results differ from the previous table largely because in this case little new ethanol is being produced but oil is being used to produce more conventional gasoline to replace the diverted ethanol.

* The results presented above are on an annual per gallon basis. Program wide (average) impacts will be less (either positive or negative) as ethanol is mandated in only 30% of the reformulated gasoline pool.

Key Assumptions - In addition to assumptions outlined in the earlier DOE analysis several new assumptions were required to conduct the analysis. The first of these is that the proposed renewable oxygenate program will result in the ethanol production and use as EPA's expects, i.e., ETBE is used in the summer and no trading of credits from winter ethanol use to meet summer renewable oxygenate requirements occurs. We also assumed that no additional transportation energy is used for moving ethanol to new RFG markets, i.e., area credit trading takes place so that ethanol can be used near its current markets or production sources. If these conditions are not met the impacts of the mandate will vary substantially from those reported above.

A second important assumption, affecting estimates of greenhouse gas emissions, is that corn and ethanol production techniques used to produce the incremental ethanol consumed under this program are consistent with current industry-average practices. This means, for example, that neither marginal crop land nor above average efficiency ethanol production facilities are used. It also implies that the by-products, which may nearly double in volume, will continue to have ready markets, displacing the demand for other agricultural production (e.g., soy beans) and thereby reducing greenhouse gas emissions that would have otherwise resulted.

A number of additional less critical assumptions regarding gasoline and ethanol use patterns at the state level, refining production practices for conventional gasoline and other light products, and oxygenate utilization practices by refiners and blenders were made and are detailed in the supporting analysis memoranda.

Data and Methodology - A previously developed methodology^{1,4} for assessing energy and oil impacts of ethanol use in reformulated gasoline was modified and expanded³ to estimate oil, fossil energy, and greenhouse gas impacts of the current proposal. Because this proposal also covered winter reformulated gasoline new data concerning refinery energy use in the production of winter fuels was required and obtained from Turner Mason and Company⁷ based on a recently completed National Petroleum Council study, and from Oak Ridge National Laboratory.⁸ Because greenhouse gas emissions had not been evaluated previously, the methodology was modified to account for this and data was used from work performed by Mark DeLuchi for Argonne National Laboratory.⁹ In order to address the question of likely volumes and sources of ethanol to be used under this proposal a new methodology was developed¹⁰ and new data sources on current ethanol use, potential RFG demand, and current and potential ethanol production used.

References

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2. EPA, Technical Support Document: Renewable Oxygenate Mandate for Reformulated Gasoline, December 1993.
3. Singh, M., ANL, letter to B. McNutt, January 24, 1994.
4. Singh, M. and B. McNutt, Energy and Crude Oil Input Requirements for the Production of Reformulated Gasolines, Argonne National Lab Report (Draft), October 20, 1993.

5. Singh, M., letter to B. McNutt, February 15, 1994.
6. EPA, Regulation of Fuels and Fuels Additives: Renewable Oxygenate Requirement for Reformulated Gasoline, NPRM, FR, Vol 58, No. 246, Dec. 27, 1993.
7. API, letter to B. McNutt, January 3, 1994.
8. Hadder, J., ORNL, letter to B. McNutt, January 10, 1994
9. DeLuchi, M.A., Revisions to the Greenhouse Gas Emissions Model Used in Emissions of Greenhouse Gases from the Use of Transportation Fuels and Electricity, ANL/TM-22 (Draft), August 1993.
10. Stork, K., Analysis Memorandum: A Comparison of Fuel Ethanol Supply and Demand due to RFG and Gasohol (Draft), prepared for DOE Energy Demand Policy, Jan. 15, 1994.



Department of Energy
Washington, DC 20585

MEMORANDUM

TO: Susan F. Tierney

FROM: Carmen Difiglio *CD*

DATE: March 8, 1994

SUBJECT: Ethanol Analysis, Next Steps, Suggested DOE Position

Status of Analysis

I have received word from General Council that their review of our analysis will take about a week to complete. In the meantime, we have begun to consider the effect of changing our ethanol plant efficiency assumptions. We have assumed that all new ethanol plants have the same overall efficiency and carbon emission characteristics of the industry average. Considering the variety of different sizes and designs of new plants this is probably a good assumption. However, we have begun an analysis of how the results would be affected if all new ethanol plants represented the best practice.

Suggested DOE Position

Many commenters have challenged EPA's legal authority to use the reformulated gasoline rule to reduce oil use, energy use or CO₂ emissions. No commenters have challenged EPA's authority to set requirements that would reduce ozone forming emissions. We have received an interesting analysis from the Department of Agriculture that analyzes the ozone forming emissions of ETBE. It could provide the best legal argument for the most important part of EPA's proposed ethanol mandate. EPA's models for estimating emissions understate the VOC reduction benefits of some oxygenates such as ETBE. By mandating ETBE use, the Department of Agriculture and EPA both conclude that VOC emissions would be reduced. These benefits occur, however, only during the summer months and do not apply to ethanol. This fact could provide the most solid legal basis to support the ethanol mandate since it is based on reducing ozone-forming emissions.

In our analysis of the energy impacts of the mandate, the negative oil, energy use and CO₂ consequences stem from the winter ethanol portion of the mandate. Slightly positive oil and energy use benefits are shown for the summer ETBE mandate by itself. My recommendation is to support the summer ETBE mandate on the basis of reduced emissions and energy use. The Department could actively support the summertime ETBE mandate and oppose the wintertime ethanol mandate or simply support the ETBE mandate and remain silent on the winter mandate.



⑤ The ethanol industry clearly benefits from the summer and winter mandates since they guarantee a market and can inflate ethanol prices. However, if the ethanol industry only received the summer ETBE mandate, they would effectively be getting what they originally wanted, i.e., the 1 psi vapor pressure waiver. The vapor pressure waiver only affected the summer use of ethanol, not the winter use. The industry originally was content to compete with MTBE so long as gasoline did not need a lower vapor pressure in order to use ethanol during the summer. A summertime ETBE mandate effectively provides the industry more benefits than a 1 psi waiver since ethanol must be used, regardless of its market price. Even with the 1 psi waiver, it is unlikely that ethanol would have captured more than 30 percent of the oxygenate market, and it could have been less.

We will have an opportunity this Friday, March 11, to discuss our findings with Dick Wilson and, if you agree, to suggest this alternative to the full year mandate. Please let me know before 1:00pm on Friday if you want us to suggest the summer-only ETBE mandate.

To:

Barry McNutt
Office of Policy, Planning, and Program
Evaluation
U.S. Department of Energy

Your fax number***70,1 202 586 4447****Your telephone number****202 586 4448****From:**

Mark A. Delucchi
Research Scientist
Institute of Transportation Studies
University of California
Davis, California 95616
USA

Our fax number**(916) 752 6572****Our telephone number****(916) 967-1915****Date and time****03/10/94-2:25:19****# of pages, incl. this****4****Cover message:**

Dear Margaret and Barry:

Here are my comments on *An Analysis of the Total Energy Requirements for Ethanol Manufacture from Corn*, by Conway et al. (1994). I have organized my comments around their tables, and have referred to pages and tables in my ANL report, and to addresses in the spreadsheet model that I gave (SHEET: COLUMN ROW). (Some of the spreadsheet references might be off a bit, because I might have changed the model since I gave it to you, but the differences should be not be great.)

Table 1, *Properties of Fuels*.

Their assumptions are consistent with my assumptions, shown in Table C.1 (spreadsheet D:row 70).

Tables 2 and 3, *Efficiency of Producing and Transporting Process Fuels*.

For the most part their assumptions are OK. My calculated fuelcycle energy-use data are shown in Table 3 of Volume 1 (page 21). If you calculate production efficiencies from my data, you will see that they are slightly higher than what they assumed; that is, I estimated that fuel production and transport takes slightly less energy than they assumed. However, this is a minor effect.

Table 4, *Fertilizer Requirements*

The following table compares their fertilizer assumptions to my fertilizer estimates.

	Delucchi (1992) Tables K.1, K.3, K.7 and spreadsheet O:A22 and E:A95 and around			Conway et al. (1994) Table 4		
	lb/bushel	BTU/lb	BTU/bushel	lb/bushel	BTU/lb	BTU/bushel
Nitrogen	1.325	25,000	33,117	1.097	22,160	24,309
Phosphate	0.500	3,000	1,500	0.575	4,176	2,401
Potash	0.677	3,000	2,031	0.496	1,244	617
Lime	2.692	620	1,669	2.69	620	1,668
Sulfur	0.013	443	6	n.e.	n.e.	0
<i>Totals</i>			38,322			28,995
<i>BTU/BTU-ethanol</i>			0.17			0.13

Their assumed fertilizer requirements are quite low. Now, as I show in Table K.7, my original estimated fertilizer requirements were lower than anyone else's except Marland and Turhollow's, whose estimate was only slightly lower. The Conway et al. (1994) estimate is very low because they assume a very low figure for lbs-nitrogen/bushel-corn. My number, which as I said already is lower than most others, is based on a detailed review of historical data (Table K.1). Because Conway et al. do not show how they made their estimate, I cannot tell if it is reasonable or not. I believe that it is too low to be an estimate of average energy use, which is what mine was; however, it *probably is reasonable as an estimate of best practice*.

Table 5, Farm Energy Requirements

This table can be compared directly with my Table K.6. If you subtract chemicals, seeds, and fertilizer from their total (my Table K.6 numbers do not include them; I handle them elsewhere in the analysis), you get 18,985 BTU/bushel (the proper comparison here is to their direct energy requirements). My Table K.6 shows that farming energy ranged from 19,400 BTU/bushel to 31,100 BTU/bushel between 1980 and 1986. In my analysis I assumed 22,000 (spreadsheet O: I10.) As Table K.7 shows, my assumption was lower than nearly all others published (the same as Marland and Turhollow's). Thus, their estimate again is very low. And, again, I believe that my estimate is accurate for average practice. Their estimate might be reasonable for best practice.

My estimate of energy in seeds and chemicals (mentioned on page K-10) is about 7,000 BTU/bushel (20% of my fertilizer estimate), which again is higher than theirs.

Table 9. Ethanol Production and Distribution Energy Data

They estimated about 800 BTU/gallon for corn delivery; I estimated about 2,200 (Table K.7). Interestingly, their input assumptions (2000 BTU-diesel/truck-ton-mile; 50 miles) appear to be similar to mine (2,144 and 40 miles, plus some train transport; page K-11; spreadsheet O: I11). The difference in the results is due to the fact that they counted 25% of the transport energy as farming energy, and, I think, forgot that trucks have to make a round trip. I assumed that the energy of the return trip must be attributed to the corn. They apparently either forgot about this, or assumed that the energy could be attributed elsewhere. (On the other hand, they might be right about farming energy including some transport energy; I do not recall if my data did or not).

They assumed 2,500 BTU-diesel/gallon-ethanol for ethanol distribution; I estimated 2,300 (see Table E.1, spreadsheet N: column I). Thus, we are consistent in this case.

Tables 7, 8, 10, and 11 Corn-to-Ethanol Conversion Efficiency.

(Note that their Table 6 shows thermal input requirements as steam, not thermal requirements as coal.) In Tables 7, 8, 10, and 11 they calculate the amount of coal required to raise the steam needed for distillation and for in-house power production (i.e., they assume cogeneration of heat and power). The result is 47,424 BTU/gallon (0.565 BTU-coal/BTU-ethanol) for the dry milling process, and 36,343 for the wet milling process, net of the drying energy used for other products (see below) (0.433 BTU-coal/BTU-ethanol). My Table K.7 shows that assumptions in the literature have ranged from 0.28 BTU-coal/BTU-ethanol to 0.90 BTU-coal/BTU-ethanol, with up to an additional 0.1 BTU-power/BTU-ethanol required (power counted at 3412 BTU/kWh). In my analysis I considered a range of 0.35 to 0.60 BTU-coal/BTU-ethanol, with a base case of 0.53 BTU-coal/BTU-ethanol, and an additional 0.05 BTU-power/BTU-electricity (spreadsheet O: I13 for energy use; H:H51 and down for energy breakdown). If you assume, as they did, that the power requirement can be cogenerated from the heat supplied by the coal, with almost no

energy cost, then you should ignore the power requirement. If you want to count it as an additional energy cost, you should multiply the 0.05 BTU-power/BTU-ethanol by about 3, to account for generation losses, and then add the resultant 0.15 to the coal-heat figures.

In any case, overall, I think that their assumptions are reasonable for state-of-art. Their coal-consumption estimates are within the range cited in the literature, and within my range. Their argument in favor of co-generation seems reasonable to me.

Byproduct credits

Interestingly, they do not give any byproduct credits, although they do deduct the 7000 BTU/gallon that in the wet-milling process is used to dry the byproducts. I handle byproducts in two different ways. In the base case, I give product-by-product credits, which result in a credit of nearly 12,000 BTU/gallon. In the second case, I simply assume that 45% of the farming and conversion energy is attributable to non-ethanol byproducts (pages K-16 to K-18; Table K.8; spreadsheet, sheet O, A56 and down). The second case results in a particularly large byproduct credit, on the order of 20,000 BTU/gallon.

Tables 10 and 11 ethanol Energy Summary

They estimate that the dry milling process requires a total of 0.86 BTU-direct energy/BTU-ethanol, and the wet milling 0.74. (I use their direct energy figures because all my figures are direct energy; I account for "indirect" energy use differently than they do). My total estimated ratio, which is the sum of the stage-by-stage ratios shown in Table 3 of Volume 1, is 0.95, excluding all byproduct credits, but including 0.05 BTU-power/BTU-ethanol (at 3412 BTU/kWh). If you convert the power to its thermal equivalent, my ratio is 1.05; if you ignore it, on account of co-generation, my ratio becomes 0.90. (You will note that the subratios in Table 3 total to 0.93, not 0.95; here I have removed the one byproduct credit given in that table [see note g to Table 3].)

Thus, ignoring byproduct credits and allowing for cogeneration of electricity, I estimate somewhat higher energy consumption than they do. Of course, this follows from the step-by-step comparison above. Overall, I think that their analysis is reasonable as a "best case" analysis. Indeed, my "best for ethanol/corn+coal," scenario 27-t of Table 12 Volume 1, is much more favorable than their case.

I hope you are able to run the model to generate the results that you need. If you have problems, or really REALLY want me to run the model, please give me a call.

Sincerely,

Mark



United States
Department of
Agriculture

Office of
Energy

Washington, D.C.
20250-2600

March 21, 1994

Mr. Barry McNutt
U.S. Department of Energy
P.O. Box 50
1000 Independence Ave. S.W.
Washington, D.C. 20585

Dear Barry:

We appreciate your sending Dr. Deluchi's comments on *An Analysis of the Total Energy Requirements for Ethanol Manufacture from Corn*, by Conway et al. (1994). Dr. Deluchi's expertise on this subject is well known and his work on the fuel conversion process provided a very useful reference for deriving our own energy use estimates.

There is probably little difference between the findings of Deluchi and Conway et al. when you consider the temporal and regional variation of corn-ethanol production. Discrepancies between the two studies can usually be explained by different data collection periods, the method used to adjust temporal variation and minor differences in the inputs that are included in the energy use estimates.

It appears from Dr. Deluchi's comment "*Conway et al. do not show how they made their estimate*" that he did not get a copy of Appendix II, Table A2.1 of Conway et al. This table shows all farm production inputs, such as pounds of nitrogen, phosphate and potash, quantity of lime, and fuel used in corn production that are collected by personal interviews of corn farmers.

Data sources and other details of our estimates that help explain the differences between the two studies are discussed below.

- BTU's of energy used for the production of fertilizers are based on the latest information from the Fertilizer Institute: Production Cost Surveys, for the year ending December 31, 1992. Deluchi used an annual average to derive his fertilizer estimates.
- Estimates of fuels used in corn production are derived from USDA's 1991 Farm Costs and Returns Survey (FCRS). They include, gasoline, diesel, electricity used for irrigation and other purposes, natural gas for drying and irrigation, and LPG. Energy use per bushel of corn is based on 1990-92

Mr. Barry McNutt

2

average yield. According to FCRS, some of the fuels that Deluchi included in his estimates such as coal, kerosene, wood, and other fuels are not used in corn production,

- More than 25 percent of the corn used for ethanol production is delivered by farmers by truck to the plant. The FCRS includes the fuel cost for transporting corn from the farm to the first point of sale or storage (including return trip).
- About 75 percent of the corn grown for ethanol production is not delivered by the farmer. Our analysis assumes that this corn is transported by truck to an ethanol plant.
- Inland waterways are the most efficient system for transporting goods long distances -- one gallon of diesel fuel for 500 ton-miles. Transportation costs for inputs such as fuels and fertilizers are based on a combination of truck and barge use.

If either you or Dr. Deluchi have questions regarding the data or assumptions, please contact Hosein Shapouri or James Duffield at (202) 219-1941.

Sincerely,



Roger K. Conway, Director

ARGONNE NATIONAL LABORATORY
955 L'ENFANT PLAZA, SW, SUITE 6000
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Telephone 202/488-2440
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March 17, 1994

Mr. Barry McNutt
U.S. Department of Energy
PO-50
1000 Independence Avenue, S.W.
Washington, D.C.

Dear Barry:

As requested, I am submitting two analyses related to the use of ethanol in reformulated gasoline:

- 1) Energy Requirements and CO₂-Equivalent Emissions of RFG
and
- 2) A Comparison of Fuel Ethanol Supply Demand due to RFG and Gasohol.

In the first analysis, I have merged the discussion and tables contained in two letters sent by me to you on January 25 and February 15 of this year. The results presented here are the same as those presented in the two letters. I have added a brief discussion of the EPA proposal, discussion of two key assumptions, and references. The second analysis, prepared by an ANL STA, is unchanged from the version submitted to you in January.

As we have discussed, I will eventually provide you with a more complete documentation of the analysis used to develop the energy requirements and CO₂-equivalent emissions estimates. I look forward to technical peer review of this analysis similar to that which was provided of our prior RFG study.

Margaret Singh
Transportation Energy Analyst

Energy Requirements and CO₂-Equivalent Emissions of RFG
(Draft)
(3/17/94)

This analysis presents an assessment of the total energy, fossil energy, and oil required to deliver equal energy content reformulated gasolines (RFGs), as well as the CO₂-equivalent emissions associated with the production and use of these RFGs. It expands upon an earlier analysis conducted for DOE's Office of Energy Demand Policy (1-2). EPA used that analysis to support its current proposal to require renewable sources for 30% of the oxygenates in RFG (3). In this paper, we revisit our past analysis and the questions of the impacts of ethanol use as an oxygenate in RFG. This analysis uses the same methodology as previously developed but expands it to include CO₂-equivalent emissions impacts and fossil energy use. The results are presented in terms of (a) changes in total energy, fossil energy and oil use and (b) changes in CO₂-equivalent emissions that would result from ethanol and (ETBE) use in lieu of MTBE in RFG.

EPA Proposal: Summary

EPA has proposed that 30% of the oxygenate in RFG must come from renewable sources (4). It is possible that methanol and ethanol produced from biomass resources or cellulosic feedstocks could be used to meet this requirement. However, it is considered unlikely that significant quantities of biomass-based methanol or cellulosic ethanol will be produced until after 2000. Currently the only renewable oxygenate is ethanol produced from corn and other food crops. Therefore the analysis presented below assumes the use of corn to produce ethanol.

The EPA proposal further requires that, to satisfy this requirement during the summer, ethanol must be used in the form of ETBE. During the winter, ethanol can be used directly without being converted to an ether. All RFG must meet applicable performance requirements, i.e., no emissions waiver is proposed.

The proposal covers all federal RFG but allows credits and trading among refiners, areas and seasons. With credit trading, it is possible that most of the ethanol used to meet the requirements could be used in one part of the country (e.g., the midwest) or during one season (e.g., the winter).

Energy Requirements and CO₂ Equivalent Emissions: Methodology

Estimates of the total energy, fossil energy, and oil required to deliver equal Btu RFGs, as well as the CO₂-equivalent emissions associated with the production and use of these RFGs are provided in Tables 1-6. RFGs produced with MTBE, ETBE, and ethanol for summer and winter use are included, as is conventional gasoline (CG).

The energy and oil use estimates for the summer fuels with MTBE, ETBE with "new

ethanol", and ethanol with "new ethanol" have been documented in an ANL formal report, as well as other papers (2, 5-6). Use of the term "new ethanol" indicates that the estimate to which it applies assumes that the ethanol used in the RFG will be produced incrementally to that ethanol now being produced in the country.

The energy and oil estimates for the summer fuels with "old ethanol" are new. The estimates are based on the "new ethanol" estimates but assume that the ethanol used in the RFG is diverted from current use. Since this ethanol is already being produced, the energy required to produce it is not included. However, the energy required to supply CG to replace ethanol in areas of the country from which it is diverted is accounted for in the RFG analysis. Thus, sufficient CG to replace the ethanol energy in the RFG with ethanol or RFG with ETBE is included in the estimates of RFGs made with "old ethanol".

The energy and oil estimates for the winter fuels are also new. They are derived from energy balances for the production of RFG vs. CG in the winter for PADD II refineries. These balances were derived by Turner Mason (TM) using the same model and assumptions as were used to derive the energy balances for our summer fuels analysis (7). However TM did not include RFG produced with ethanol in its winter analysis. ORNL developed estimates for RFG with MTBE and RFG with ethanol for PADD III using a different model (8). We applied the increment that ORNL estimated between RFG with MTBE and RFG with ethanol to the RFG with MTBE estimates derived from TM to develop the RFG with ethanol estimates presented here. The "new ethanol" vs. "old ethanol" rationale described above also applies to the winter RFGs.

The fossil energy requirements are also new. We have simply subtracted the energy content of the ethanol in each RFG (including the ethanol in ETBE) from the total energy required to deliver RFG in order to develop these estimates.

The CO₂-equivalent emissions are also new. These estimates are derived using Mark DeLuchi's GHG emissions model (9). DeLuchi's model can be used to develop a series of estimates. In this analysis, we developed individual estimates of the CO₂-equivalent emissions associated with HCs, ethanol, ETBE, and MTBE. We vary the CO₂-equivalent emissions estimates associated with HC production since the energy required to produce the HCs for various RFGs and CG varies. All the estimates are derived in terms of gram CO₂-equivalent emissions/Btu of fuel and thus are applied to the energy content of the revised fuel volume required to deliver equal Btu. The estimates do not include CO₂-equivalent emissions associated with vehicle production, but do include emissions associated with vehicle operation.

Key Assumptions

In addition to the assumptions outlined in the prior analysis, a number of new assumptions were required to conduct this analysis. Two deserve to be highlighted. The first is that the proposed renewable oxygenate program will result in ethanol production and use as EPA expects. In other words, ETBE will be used in the summer

and no trading of credits from winter ethanol use to meet summer renewable oxygenate requirements will occur.

The second assumption affects the CO₂-equivalent emissions estimates. This analysis uses DeLuchi's base case ethanol estimates which assume the use of current industry average corn and ethanol production practices. We will be evaluating the CO₂-equivalent implications of improved ethanol industry practices provided in a paper by the US Department of Agriculture (10). Our analysis of these implications will be provided in the final draft of this paper.

Energy Requirements and CO₂ Equivalent Emissions: Results

Tables 1 and 2 present the analysis of the individual RFGs which could be used in summer and winter. These winter and summer RFGs are combined in Tables 3 and 4 so that use of RFG with ethanol (including ETBE) on an annual per gallon basis can be compared with that of RFG with MTBE. We have annualized the effects of use of the individual summer and winter fuels by assuming that the summer fuels are used for five months and the winter fuels for the remainder of the year. The results indicate that if all the ethanol is "new", an annual gallon of RFG oxygenated with ethanol (winter) and ETBE (summer) would result in greater total energy use (1.6%), greater oil use (3.2%), and higher CO₂-equivalent emissions (1.0%). If all the ethanol is "old", energy use is lower (0.6%) as is CO₂ (0.1% lower), but oil use is higher (7.3%). In order for the CO₂-equivalent emissions to be equal or better under the "new ethanol" estimates, ethanol's CO₂-equivalent emissions would have to be lower by 18.2%.

In Tables 5 and 6, the program-wide impacts of requiring that 30% of the RFGs be oxygenated with renewables (ethanol) are evaluated. The results indicate that CO₂-equivalent emissions could be equivalent to 0.3%-0.4% higher than with year-round use of MTBE. Oil use is always higher (from 0.9% to 3.3%) under the program than with year-round use of MTBE. Fossil energy use ranges from 0.5% lower to 0.2% higher.

References

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3. EPA, Technical Support Document: Renewable Oxygenate Mandate for Reformulated Gasoline, December 1993.
4. EPA, Regulation of Fuels and Fuels Additives: Renewable Oxygenate Requirement

for Reformulated Gasoline, NPRM, FR, Vol. 58, No. 246, Dec. 27, 1993.

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9. DeLuchi, M.A., Revisions to the Greenhouse Gas Emissions Model Used in Emissions of Greenhouse Gases from the Use of Transportation Fuels and Electricity, ANL/ESD/TM-22(Draft), August 1993.
10. Conway, R., et.al, An Analysis of the Total Energy Requirements for Ethanol Manufacture from Corn, U.S. Department of Agriculture, January 31, 1994.

TABLE I. FUEL VOLUMES AND ENERGY CONTENT FOR RFG WITH 2.1% O₂ CONTENT
 ENERGY, OIL, & CO₂ EQUIVALENT EMISSIONS FOR RFG VOLUMES WHICH CONTAIN THE SAME ENERGY AS RFG WITH MTBE)

FUEL TYPE	CUMPO- MENTS	INITIAL VOLUME GALLONS	ENERGY CONTENT BTU	REVISED VOL TO DELIVER EQUAL BTU AS RFG WITH MTBE ONLY		REVISD ENERGY CONTENT BTU	OIL CONTENT FEEDSTOCK BTU	ENERGY REQUIRED TO PRODUCE RFG BTU	OIL REQUIRED TO PRODUCE RFG BTU	TOTAL ENERGY REQUIRED TO DELIVER RFG BTU	FOSSEL ENERGY REQUIRED TO DELIVER RFG BTU	TOTAL ENERGY REQUIRED TO DELIVER RFG BTU	TOTAL OIL REQUIRED TO DELIVER RFG BTU	CO ₂ EQUIVALENT EMISSIONS G
				ENERGY CONTENT BTU	INITIAL VOLUME GALLONS									
SUMMER FUEL ANALYSIS														
RFG														
WITH MTBE	HC*	0.883	101142	0.883	101142	101142	101142	15996	9080	117136	117136	117136	110202	9828
	MTBE	0.117	10912	0.117	10912	10912	947	2037	0	12949	12949	130087	647	1034
	TOTAL	1.000	112053	1.000	112053	112053	101789	18033	9080	130087	130087	130087	110649	10861
RFG														
WITH ETBE	HC*	0.882	99272	0.886	99175	99175	99175	15469	8667	114643	114643	114643	107842	9601
	ETBE	0.133	12891	0.133	12879	12879	865	4203	303	17081	17081	172452	969	1337
	NEW ETOLH	1.000	112163	0.939	112053	99640	99640	19671	8970	131725	131725	131725	106811	10938
RFG														
WITH ETBE	HC*	0.887	99272	0.880	99175	99175	99175	15469	8667	114643	114643	114643	107842	9601
	ETBE	0.133	12891	0.133	12879	12879	865	4203	303	17081	17081	17081	969	1337
	AT 2.1% O ₂	0.057	4277	0.056	4273	4273	0	3327	319	7600	7600	3327	319	524
	REWORKING ETOLH	0.037	4272	0.037	4273	4273	0	862	502	4935	4935	4935	4775	413
	CG	0.981	112163	0.980	112053	104113	104113	17006	9153	129059	133332	133332	113267	10827
RFG														
CG IN PADD II	HC*	0.980	112210	0.983	110216	110216	110216	17066	12957	127282	127282	127282	123173	10649
	MTBE	0.020	1871	0.020	1837	1032	1032	263	0	2101	2101	2101	1032	174
	TOTAL	1.000	114081	0.982	112053	111246	111246	17329	12957	129362	129362	129362	124705	10873
WINTER FUEL ANALYSIS														
RFG														
WITH MTBE	HC*	0.883	101142	0.883	101142	101142	101142	13272	7660	114414	114414	114414	109002	9376
	MTBE	0.117	10912	0.117	10912	10912	947	2093	0	13005	13005	13005	0	1034
	TOTAL	1.000	112053	1.000	112053	112053	101142	15365	7660	127418	127418	127418	109002	10411
RFG														
WITH ETHANOL	HC*	0.940	107630	0.939	107516	107516	107516	14232	8535	121750	121750	121750	116053	9969
	AT 2.1% O ₂	0.080	4540	0.080	4535	4535	0	339	8067	8067	3531	339	556	
	NEW ETOLH	1.000	112170	0.939	112053	107516	107516	17763	8674	129617	129617	129617	116392	10545
RFG														
WITH ETHANOL	HC*	0.940	107630	0.939	107516	107516	107516	14232	8535	121750	121750	121750	116053	9969
	AT 2.1% O ₂	0.080	4540	0.080	4535	4535	0	339	8067	8067	3531	339	556	
	REWORKING ETOLH	0.040	4540	0.040	4535	4535	0	823	459	5165	5165	4894	0	
	CG	0.880	112170	0.880	112053	112053	112053	14861	8994	126915	126915	126915	121047	10415
RFG														
CG IN PADD II	HC*	0.980	112210	0.983	110216	110216	110216	15294	11152	125510	125510	125510	121368	10356
	MTBE	0.020	1871	0.020	1837	1032	1032	317	0	2155	2155	2155	1032	174
	TOTAL	1.000	114081	0.982	112053	110923	110923	15811	11152	127685	127685	127685	121775	10530

NEW ETOLH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL INVERTED FROM EXISTING MARKETS
 EXISTING ETOLH = ETHANOL DIVERTED FROM EXISTING MARKETS

TABLE II: RELATIVE PER GALLON ENERGY CONTENT AND CO₂-EQUIVALENT EMISSIONS OF SUMMER AND WINTER RFGs: ALL VALUES PRESENTED ARE CALCULATED RELATIVE TO SUMMER RFG WITH MTBE

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO ₂ -EQUIVALENT EMISSIONS
SUMMER				
RFG W MTBE AT 2.1%	1.000	1.000	1.000	1.000
RFG W ETBE AT 2.1% (NEW ETOH)	1.013	0.980	0.982	1.007
RFG W ETBE AT 2.1% (EXISTING ETOH)	0.992	1.025	1.022	0.997
CG IN PADD II	0.995	0.995	1.120	0.996
WINTER				
RFG W MTBE AT 2.1%	0.979	0.979	0.983	0.959
RFG W ETOH AT 2.1% (NEW ETOH)	0.998	0.963	1.050	0.971
RFG W ETOH AT 2.1% (EXISTING ETOH)	0.976	0.976	1.092	0.959
CG IN PADD II	0.981	0.981	1.099	0.970

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS
EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

TABLE III: PER GALLON ENERGY CONTENT AND CO₂-EQUIVALENT EMISSIONS OF ANNUAL USE OF RFGs WITH SPECIFIC OXYGENATES (1)

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO ₂ -EQUIVALENT EMISSIONS
RFG W MTBE AT 2.1%	128530	128530	109771	10599
RFG WITH ETBE (SUMMER)	130612	126186	113233	10709
AND ETOH (WINTER) AT 2.1% (NEW ETOH)				
RFG WITH ETBE (SUMMER)	127808	129589	117805	10587
AND ETOH (WINTER) AT 2.1% (EXISTING ETOH)				
CG IN PADD II	128380	128380	122788	10652

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS
EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

(1) Annual usage is determined by weighting summer fuels (Table 1) by 5 months and winter fuels (also Table 1) by 7 months.

TABLE IV: RELATIVE PER GALLON ENERGY CONTENT AND CO₂-EQUIVALENT EMISSIONS OF ANNUAL USAGE OF RFGs WITH SPECIFIC OXYGENATES: ALL VALUES PRESENTED ARE CALCULATED RELATIVE TO ANNUAL USE OF RFG WITH MTBE

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO ₂ -EQUIVALENT EMISSIONS
RFG W MTBE AT 2.1%	1.000	1.000	1.000	1.000
RFG WITH ETBE (SUMMER)	1.016	0.982	1.032	1.010
AND ETOH (WINTER) AT 2.1% (NEW ETOH)				
RFG WITH ETBE (SUMMER)	0.994	1.008	1.073	0.999
AND ETOH (WINTER) AT 2.1% (EXISTING ETOH)				
CG IN PADD II	0.999	0.999	1.119	1.005

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS
EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

TABLE V : AVERAGE (PROGRAM-WIDE) ENERGY CONTENT AND CO2-EQUIVALENT EMISSIONS OF RFGs
(ALL RFGs AT 2.1%)

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO2-EQUIVALENT EMISSIONS
RFG W MTBE (YEAR-ROUND)	128530	128530	109771	10599
RFG WITH ETBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	129155	127827	110810	10632
(NEW ETOH)				
RFG WITH ETBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	128314	128848	112182	10595
(EXISTING ETOH)				
RFG WITH ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	129258	127898	111995	10640
(NEW ETOH)				
RFG WITH ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	128388	128388	113391	10602
(EXISTING ETOH)				
CG IN PADD II	128380	128380	122788	10652

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS

EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

(1) 30% OF RFGs OXYGENATED WITH RENEWABLES PROGRAM-WIDE

TABLE VI : RELATIVE AVERAGE (PROGRAM-WIDE) ENERGY CONTENT AND CO2-EQUIVALENT EMISSIONS: ALL VALUES ARE CALCULATED RELATIVE TO YEAR-ROUND RFG WITH MTBE (ALL RFGs AT 2.1%)

	TOTAL ENERGY USE	FOSSIL ENERGY USE	OIL USE	CO2-EQUIVALENT EMISSIONS
RFG W MTBE (YEAR-ROUND)	1.000	1.000	1.000	1.000
RFG WITH ETBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	1.005	0.995	1.009	1.003
(NEW ETOH)				
RFG WITH ETBE (SUMMER), ETOH (WINTER) AND MTBE (YEAR-ROUND) (1)	0.998	1.002	1.022	1.000
(EXISTING ETOH)				
RFG WITH ETOH (WINTER), AND MTBE (YEAR-ROUND) (1)	1.006	0.995	1.020	1.004
(NEW ETOH)				
RFG WITH ETOH (WINTER), AND MTBE (YEAR-ROUND) (1)	0.999	0.999	1.033	1.000
(EXISTING ETOH)				
CG IN PADD II	0.999	0.999	1.119	1.005

NEW ETOH = INCREMENTALLY PRODUCED ETHANOL AS OPPOSED TO ETHANOL DIVERTED FROM EXISTING MARKETS

EXISTING ETOH = ETHANOL DIVERTED FROM EXISTING MARKETS

(1) 30% OF RFGs OXYGENATED WITH RENEWABLES PROGRAM-WIDE

Barry McNutt

Department of Energy

Washington, DC 20585

March 22, 1994

CONFIDENTIAL

MEMORANDUM FOR SUSAN TIERNEY

FROM: Robert R. Nordhaus
General Counsel

SUBJECT: Energy, Oil, and Greenhouse Gas Impacts of EPA's Ethanol Proposal

Summary

In response to your memorandum of February 28, 1994, I have reviewed the summary of DOE's technical analysis of EPA's renewable oxygenate proposal for the Clean Air Act's ("Act") reformulated gasoline ("RFG") program. For the reasons stated below, I generally concur with your plan to send out the analysis as a staff draft for peer review by selected experts at various agencies and organizations. Overall, I believe that your plan represents a judicious step in light of the significant implications of DOE's preliminary findings and the tight time constraints governing this rulemaking action.

Substantive Comments

DOE's technical analysis raises significant legal and policy considerations. Assuming the validity of the analysis, the Department's preliminary findings could end up providing a basis for other parties challenging EPA's rulemaking as being arbitrary and capricious. In the preamble, EPA asserts that its proposal is based on the Agency's general authority under Section 211(k)(1) of the Act to establish requirements for RFG and the specific directive in that section to consider environmental, energy, and economic impacts in structuring the emission reduction requirements for the RFG program. EPA contends that, by expanding the use of renewable fuels, such as ethanol, its proposal would reduce significantly our dependence on foreign oil and lower emissions of harmful greenhouse gases. However, to the extent that DOE's analysis shows that the proposal would not result in those energy and environmental benefits, the DOE analysis would undermine the Agency's primary statutory justification for its proposal.

Moreover, if DOE's analysis is validated through peer review, EPA will have to determine its next course of action. I understand that your office is evaluating whether to recommend that the Agency modify its rule to require that 30% of the specified oxygenate content of RFG manufactured during the summer months be met by domestically-produced ETBE. In anticipation of receiving such a proposal from you, my staff is researching the legal merits of this alternative.



CONFIDENTIALProcedural Comments

The Department is not under any legal obligation to comment on EPA's proposal.¹ Moreover, under the circumstances, it is legally permissible for DOE to confer with interested third parties on the validity of its preliminary findings before determining whether or not to file comments. I would recommend adding to the list of peer reviewers a representative of the ethanol industry in order to elicit input from the broadest spectrum of stakeholders.

Most importantly, I agree with your plan to share the Department's analysis with EPA without delay. However, because it is likely that EPA will place this document in the rulemaking docket, it is advisable to indicate clearly on the document that it is a draft staff technical analysis. Also, the cover letter should state that DOE's preliminary findings have been distributed for peer review and the parties who are reviewing the analysis. Finally, I would recommend that the draft technical analysis be presented objectively, without any policy evaluations. Given the controversy surrounding this rulemaking action and the time constraints under which EPA is operating, it is certainly prudent to release these preliminary findings now for peer review, rather than waiting until the draft final rule is submitted to OMB for interagency clearance.

cc: Sam Bradley
Dirk Forrister
Abe Haspel
Doug Smith
Mary Anne Sullivan
William White

¹ While the public comment period for EPA's proposal expired on February 14, 1994, EPA has the discretion to review comments submitted after the deadline date.

Comments or Questions *focused on Table 1*
 On the March 17, 1994 Draft Energy Analysis
 of the Renewable Oxygenate Proposal

1. Why does the oil content of MTBE change ~~between the MTBE basecase and the case which assumes that MTBE is blended with PADD 2 gasoline~~ *by a factor of 10* and why does the MTBE ~~in the case in which MTBE is blended with PADD 2 gasoline use different amounts of oil depending on the season?~~ *Why just a PADD 2 comparison?*
2. Why is the ethanol production energy lower in this analysis than the previous analysis (78% versus 87% energy input per ethanol energy)? If you are assuming increased efficiency, please explain the basis behind the change. Is the energy to transport ethanol to markets considered?
3. Even after considering the reduced energy to produce ethanol, why is the energy to produce ETBE lower than your previous analysis (32.6 vs 34.7%)?
5. Why does it take less energy to produce MTBE in this analysis compared to your previous analysis, and why does the figure change (17% - 19% vs 21% in your previous analysis)?
6. Why does ETBE have a slightly lower oil demand for its production than ethanol (303 vs 319) and why does ethanol production for the winter season demand more oil (319 vs 339)?
7. Why does the conventional gasoline produced for PADD 2 demand more energy to produce than that for reformulated gasoline (15,294/110,216 = 0.1388 vs 14,232/107,516 = 0.1324; about 4.6% difference)?
8. Considering that the overall energy efficiency of refineries is in the order of 85 - 90% and that gasoline is the most energy intensive product produced, is the estimate correct that only 13 - 14% of the energy content of gasoline will be required for its production?
9. For the summertime "new ethanol" ETBE case, shouldn't the full energy of the ethanol, including the 4273 BTUs in the ethanol itself, be subtracted out of the "total fossil energy required to produce" column?
10. Why is the total oil required to deliver RFG higher for the conventional gasoline in PADD 2 case compared to the existing ethanol case, considering that the CG in PADD 2 contains MTBE?

OPTIONAL FORM 10 (7-83)

FAX TRANSMITTAL

of pages = 1

TO: <i>BART MURPHY</i>	From: <i>Pal M</i>
Dept./Agency:	Phone #:
Fax #: <i>2-2 586 4447</i>	Fax #:
NSM 7540-01-317-7288	6880-101 GENERAL SERVICES ADMINISTRATION

ISSUE SUMMARY
EPA'S PROPOSED RENEWABLE OXYGENATE STANDARD

On December 15, 1993, EPA announced a proposed modification to its reformulated gasoline regulations.

- o This proposed rule would require that 30% of the oxygen required in reformulated gasoline be provided from renewable sources (ethanol is currently the only renewable oxygenate in the market).
- o In summer months, when volatile gasoline emissions are controlled, the renewable oxygenate must be used in the form of an ether (ETBE).
- o Credits and trading are provided.

EPA's legal justification for this proposal rests on claimed reductions in U.S. oil use and emissions of greenhouse gases resulting from the use of renewable oxygenates.

DOE is participating in interagency meetings on this proposal. A final rule is expected in June. Major issues include:

- o The Department of Agriculture has proposed to bar trading between the summer and winter program. This would insure that ETBE is used during the summer. DOE staff has opposed this proposed change.
- o EPA is considering phasing in the program: 15% in 1995 then 30% in 1996 and thereafter. DOE staff has supported this proposed change since significant logistical obstacles would make it difficult for refiners to respond to a 30% mandate in less than 6 months.
- o EPA is considering adding a "shoulder season" to prevent commingling of ethanol-blended reformulated gasoline with ether-blended reformulated gasoline. This would be achieved by lengthening the summer season so that commingled gasoline does not get used during the summer ozone season. DOE has not had an opportunity to comment on this proposal but intends to oppose such a change.
- o EPA staff has acknowledged that it has no capability of its own to provide an assessment of the proposal's impacts on oil use or greenhouse gas emissions and is relying on DOE to help them do so. DOE provided an analysis of these impacts to EPA and the Department of Agriculture. We are answering their technical questions and responding to their requests to modify assumptions and input data.

**ARGONNE
NATIONAL
LABORATORY**Center for Transportation Research
Memorandum

To: Barry McNutt

From: Margaret Singh

Subject: Responses to EPA Questions of 3/25/94 on Draft RFG Energy Analysis

Date: April 7, 1994

General

It appears that a number of EPA's questions are based on a comparison of Table 1 from the 3/15/94 analysis with the estimates submitted as part of DOE comments on the EPA RFG rulemaking last May. The May 12, 1993 estimates have since been peer reviewed and revised to account for peer reviewer comments. The revised estimates have been published in a formal report (ANL/ESD-19, October 1993). The estimates shown in Table 1 of the 3/15/94 analysis reflect the methodology and results discussed in this formal report. EPA should use the estimates presented in the formal report for its analyses. I will attempt to explain below the changes that I made between the May 1993 estimates and those presented in the formal report. I will also refer EPA to the sections of that report which explain the estimates in greater detail.

Questions

Q #1. a) The proportion of MTBE produced within the refinery vs. the proportion produced externally varied between the Turner Mason (TM) refinery linear programming (LP) runs for these two cases. The LP model runs indicate a much higher share (on the order of a factor of 10) of internal MTBE production for the CG base case. The isobutylenes used within the refinery to produce MTBE are treated as oil derived; the isobutylenes that are produced outside the refinery are assumed to be derived from natural gas sources. For further discussion of these points see Sec 3.2 of ANL/ESD-19.

b) The TM LP model run for winter RFG with MTBE suggests that all the MTBE used in this fuel is produced externally. This is consistent with the fact that refineries are net butane consumers in the winter reflecting the higher RVP of winter gasolines. I will document that assumption in a coming report.

c) The analysis was never intended to be a comprehensive analysis of the production of RFG in all areas of the country. We chose PADD II because it includes the Chicago area. This area is one of the nine areas required to use RFG and is a key market for fuel ethanol sales.

Q #2. a) ANL/ESD-19 uses 78% energy input per ethanol produced (See Table 11). It accounts for by-product credits. The 87% figure is from the May 1993 report and does not account for by-product credits.

b) The energy to transport ethanol to markets is not considered in the analysis, but then neither is the energy to transport MTBE, ETBE or gasoline.

Q #3. Again the "previous analysis" EPA refers to refers to the May 1993 analysis. The derivation of the energy and crude oil to produce ETBE is described in Sec 3.3.4 of ANL/ESD-19. I believe the only difference between the two estimates of the energy required to produce ETBE is because the final estimate accounts for by-product credits.

Q #4. There is no question #4.

Q #5. I don't believe that the estimates of the energy required to produce MTBE for use in summer fuels have changed from the previous analysis. The estimates for RFG with MTBE and CG with MTBE in Table 1 of the 3/15/94 memo are the same as those in Table 2 of the May 1993 memo. The estimates vary from fuel to fuel because the LP model runs each have different proportions of refinery production of MTBE. When MTBE is produced within the refinery we do not account for the MTBE plant energy separately from the total refinery energy consumption. See Sec. 3.3.2 of the ANL/ESD-19 report.

Q #6. The differences that EPA notes are due to a) round off errors in our input assumptions regarding the volume of ethanol in ETBE required to achieve a 2.1% oxygen content and the volume of ethanol alone in RFG required to achieve this oxygen level and b) differences in conversion factors used to convert from metric tons to gallons in the calculation of the energy required for ETBE production. We will correct these errors or differences in the final report. Note that the differences in oil requirements for ethanol production are very small. For example, arbitrarily setting each of the three estimates that EPA refers to at 319 BTU had no effect on the Table 6 of the 3/15/94 energy analysis.

Q #7. This question actually refers to the energy required to produce hydrocarbons for winter RFGs. The TM LP model runs show a decrease in the energy required to produce each unit of hydrocarbon in a mix of RFG and CG in the winter vs. such energy for winter CG. This is consistent with the fact that lower octane levels (less refining) is required in the RFG /CG pool than in CG alone because of the addition of MTBE to the pool.

Q #8. I do not know from where the 85%-90% efficiency figure comes from, but it appears that it may be an old "rule of thumb" that is now out of date. This analysis make use of up-to-date refinery LP modeling and input data.

Q #9. Only the energy content of the ethanol in the ETBE should be subtracted from the total energy column to derive the fossil energy requirements. Fossil energy (e.g., coal) is used to produce the ethanol and natural gas is used to produce the isobutylenes and those should remain in the calculation.

Q #10. I don't understand this question. It needs to be clarified.



Department of Energy
Washington, DC 20585

APR 8 1994

Mr. Richard Wilson
Director
Office of Mobile Sources
Environmental Protection Agency
ANR455, 901 West Tower
401 7th Street, SW
Washington, DC 20590

Dear Mr. Wilson:

I am writing this letter concerning material provided by the Department of Energy to Paul Machiele on March 18, 1994. This was a draft analysis of the impact of the EPA renewable oxygenate proposal on ethanol demand, energy and oil use and greenhouse gas emissions. We requested comments on the analysis as part of a peer review process. Since this information appears to be of use in preparing your response to comments received concerning the proposal, we have no objections to your including this information in the rulemaking docket and your taking it into account in preparing the final rule. However, I want to emphasize that this analysis is a draft and that we will be responding to comments from knowledgeable parties concerning input data and analytic assumptions. Therefore, it would seem appropriate to docket future versions of this analysis that are made available soon enough to affect your deliberations.

Sincerely,

A handwritten signature in cursive script, appearing to read "A. E. Haspel".

Abraham E. Haspel
Deputy Assistant Secretary for
Economic and Environmental Policy



**INDIVIDUALS WHO HAVE RECEIVED
COPIES OF ETHANOL ANALYSIS AS
PART OF PEER REVIEW PROCESS**

On March 18, 1994:

1. Paul Machiele, EPA
2. John McClelland, DOA
3. Richard Moorer, DOE

On April 7, 1994:

4. Mark Deluchi, UC DAVIS, 916-752-6572
Energy analyst who provided input on GHG analysis.
5. Richard Long, Ashland Oil Co. 606-329-3504
Major mid-continent refiner, ethanol user and ethanol producer.
6. John Coleman, Marathon Oil Co., 419-421-3837
Mid-continent refiner and largest oil co-retailer of gasoline with ethanol.
7. David Gushee, Congressional Research Service, 202-707-3342
Energy analyst who reviewed earlier analysis and has done similar analysis
8. Bob Cunningham, Turner, Mason & Co., 214-754-5915
Refinery modeler who provided refinery energy use data for this analysis.
9. Bill Peil, ARCO Chemical Co., 215-359-2581
ETBE producer and author of similar energy/oil analysis.
10. Bob Grecko, American Petroleum Institute, 202-682-8270
Analyst for oil trade association.
11. Eric Vaughn, Renewable Fuels Association, 202-289-8270
Head of ethanol trade association.
12. Doug Durante, Clean Fuels Development Coalition, 301-913-2896

On April 18, 1994:

13. Tom Geiger, Commercial Director for Ethanol, Cargill, Inc. 612-742-7440

John R. Coleman
 Manager, Fuels Technology



539 South Main Street
 Findlay, Ohio 45840
 Direct No. 419/421-2408
 Main No. 419/422-2121
 FAX 419/421-3837

April 22, 1994

Fax No. 202-586-4447
 Mr. Barry McNutt
 U.S. Department of Energy
 1000 Independence Ave., S.W.
 Washington, DC 20585

Dear Barry:

We appreciate the opportunity to comment on the two DOE studies concerned with the Renewable Oxygenate Requirement. We certainly agree with the overall conclusion that replacing MTBE with ethanol will increase energy use, oil use and CO₂ emissions.

Some aspects of the first (Singh) study are confusing - probably as a result of the approach taken. It is unclear, for example, why the "existing ethanol" case treats already-produced ethanol differently than already-produced gasoline. If ethanol is moved from an attainment area to become RFG in a non-attainment area, the study accounts for the gasoline which replaces the ethanol in the attainment area. On the other hand, the study does not count the (equal) volume of gasoline displaced from the non-attainment area. It would seem to us that there is a parallel "existing gasoline" case which yields a net zero for everything. Perhaps we don't really understand the case assumptions - in which case, more explanation would be appreciated.

As an alternative and more straightforward approach, we looked at a simple trade-off of ethanol for MTBE which, depending on the season and final form (i.e., ethanol or ETBE) displaces more or less MTBE and requires blending of more or less gasoline. This approach incidentally reaches the same conclusions.

We note in Table 1 that ethanol appears to yield a significant energy gain. The "new ethanol" line for winter fuels indicates that 3,531 BTU's are required to produce the ethanol which in turn yields 4,535 BTU's. We suspect this energy gain appears because the analysis excludes non-petroleum energy use (largely coal). If this is the case, then the column heading "Total Fossil Energy Required to Deliver RFG" is misleading. We suggest it be renamed "Total Non-Coal Energy Required to Deliver RFG". The same comments apply to the "Total Energy Required to Deliver RFG". On the other hand, since exclusion of coal obscures the major reason ethanol provides no net energy, we suggest that the column headings remain

Mr. Barry McNutt
April 22, 1994
Page 2

as they are and that coal be taken into account.) This would add about 1,000 BTU's per gallon to the energy requirements of the ethanol blends.

There are two other energy factors which need to be mentioned if not dealt with explicitly. First, there will be additional transportation energy requirements to meet the renewable oxygenate requirement. Here, logistical dislocations caused by forcing ethanol into markets not naturally supplied will increase energy usage. Second, the capital costs and, in particular, the energy requirements for new ethanol plant construction is not addressed.

As a final thought on the Singh study, we are concerned that ignoring some energy inputs and concentrating on others will trivialize the real economic costs of forcing ethanol use. In real terms, ethanol costs at least twice as much as MTBE in large part because of energy inputs required. We would suggest that the BTU's be priced out at market prices ignoring subsidies. Then the real disastrous economic consequences of substituting ethanol for MTBE would become apparent.

With regard to the second (Stork) study, we certainly agree with its conclusion: there is some level of opt-ins that will create a shortfall against supply. It may be appropriate to mention (as a footnote, say, on Page 4) the opt-in delay provision of the CAA which is supposed to handle this eventuality.

We have studied the supply/demand question but with differing assumptions. Here the main assumption which is critical to Stork's conclusions is that use of gasohol outside of non-attainment areas will not change. We believe it will shrink but will persist in states like Illinois and Ohio where state subsidies are the highest. We are not sure what the assumption about holding "motor fuel use patterns" entails. If this means no growth for gasoline demand, it would bias the results downward.

Population is not necessarily a good indicator of sub-state demand level, but is frequently used because it is readily available. We use a service station sales survey that appears to better pick up demand in transportation corridors. Population data will bias estimates upward for metropolitan areas, especially on the east coast.

One last concern is that the study appears to ignore the winter CO program. The size of the winter program and the introduction of renewable oxygenate credits with restrictions on ethanol use in the summer months will significantly impact ethanol seasonal use patterns. These may present other constraints against limited ethanol supplies.

Mr. Barry McNutt
April 22, 1994
Page 3

If you have any questions regarding the above comments or would like to discuss these issues further, please give me a call.

Very truly yours,

A handwritten signature in black ink, appearing to be "John", written in a cursive style.

JRC/ab/Barry.wp

To:

Barry McNutt
Office of Policy, Planning, and Program
Evaluation
U.S. Department of Energy

Your fax number

*78,1 202 586 4447

Your telephone number

202 586 4448

From:

Mark A. Delucchi
Research Scientist
Institute of Transportation Studies
University of California
Davis, California 95616
USA

Our fax number

(916) 752 6572

Our telephone number

(916) 967-1915

Date and time

04/23/94-9:83:34

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2

Cover message:

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April 22, 1994

Dear Barry:

Enclosed are my few minor comments on Margaret's draft of "Energy Requirements and CO₂-Equivalent Emissions of RFG", dated 3/17/94.

p. 2, para. 2, discussion of "old" ethanol. Are you saying that some gasoline in effect will be downgraded from oxygenated to conventional gasoline? That is, that someone will divert ethanol from currently reformulated gasoline to currently conventional gasoline, to make the currently conventional into reformulated, and the currently reformulated into conventional? That seems strange. What is the point?

p. 2, para. 4. The explanation seems incomplete. Presumably you do estimate the energy requirements for the ethanol, but separately from the estimate of the energy requirement of the RFG-less-ethanol.

p. 3, para. 2. A minor point: my "base-case" assumptions are probably slightly more favorable than industry average practice as of 1990.

Well, it seems like a good analysis to me, and I am sure that the oil industry will like it, but of course the ethanol guys and perhaps even the EPA will blast it. Actually, I think the brouhaha is really silly: after all, we are talking about less than 1% changes in most cases for most measures. Who could possibly care about such trivial effects? Is the world going to live or die because of an 0.5% change in GHG emissions from the U.S. motor-vehicle sector? Geez. What ever happened to the big picture? In the parallel universe that I often yearn to inhabit, people use your nice analysis to show that the 30% rule ultimately is uninteresting with respect to energy use and GHGs, and they make the decision on other grounds -- such as cost, on which shoal the whole idiotic program founders. Obviously, ethanol from corn is a stupid transportation fuel, no matter how you cut it, unless you care about corn farmers, which you shouldn't. Humph. Enough. Take care.



Congressional Research Service
The Library of Congress

Washington, D.C. 20540

April 27, 1994

Mr. Barry McNutt
Mail Stop PE-50
Department of Energy Washington, D.C. 20585

Dear Barry,

Thank you for the opportunity to review the draft analyses of energy requirements and CO₂-equivalent emissions which might result from the EPA ROS proposal. The documents in question are (1) by Kevin Stork, dated January 15, 1994, and (2) by Margaret Singh, dated March 17, 1994.

Although this work is considerably more detailed than any I have done, the assumptions used all seem reasonable to me, in particular the use of current industry average corn and ethanol production practices and the comparison of gasolines on an equal Btu basis. I have not yet reviewed DeLuchi's latest estimates of CO₂ equivalent emissions and do not know how they differ from his earlier estimates. I respect his work. I also carry the perception from it that, for a given fuel from a given starting material, one can get results that differ by 10 to 20% from case to case by making different, equally-defensible, assumptions about various input factors. Thus, cases differing by percentages in this range do not necessarily mean that the impacts are really different.

In other words, differences in energy consumption or GHG emissions of only a few percent are "soft" differences, reflecting at best the directional effects of the differences between the cases.

The proposal would cause the replacement of some MTBE with some ethanol and some ETBE. The ethanol would displace less gasoline than the MTBE it replaces, because it has a higher oxygen content, while the ETBE would displace more gasoline than MTBE, because it has a lower oxygen content. The ratio of ethanol to ETBE ultimately used thus will affect the amount of gasoline displaced. The amount of ethanol currently used in gasohol which would be diverted to RFG will affect the result in proportion to whether it is used as ethanol or as ETBE. The amount of "new" ethanol produced in response to the mandate will affect the average energy intensity and GHG emissions of the total ethanol used (in a

CRS-2

manner not currently predictable because it will depend on, among other things, whether the ethanol is produced by large, efficient producers or small, independent producers not benefiting from economies of scale).

So, although the assumptions used in the draft analyses are all defensible, I feel that there should be an overall conclusion that any claim that the proposal is energy-beneficial, environmentally beneficial, or GHG beneficial (or alternatively that the effects are detrimental) is unwarranted, because the differences are smaller than the uncertainties inherent in a future in which individual actors have a wide range of options on whether or not to participate and, if participating, how they will do so.

Given such an overall conclusion, the results presented can be described as directional, and will be more or less in the estimated directions as a function of, for example, diversion of gasohol, ratio of ethanol to ETBE, and the like.

I hope these few comments are helpful. Thanks for giving me the opportunity to make them.

Sincerely,



David E. Gushee
Senior Fellow in
Environmental Policy

American Petroleum Institute
1220 L Street, Northwest
Washington, D.C. 20005
202-682-8000



May 2, 1994

Mr. Barry McNutt
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, DC 20585

Dear Mr. McNutt:

The American Petroleum Institute (API) appreciates the opportunity to comment on the two DOE/Argonne National Laboratory analyses of ethanol in reformulated gasoline (RFG).¹ Our comments are listed below for each report. Overall, DOE's well-reasoned studies clearly show the lack of any energy security benefit or greenhouse gas emission reductions from the proposed mandate.

Singh Draft Study

- o An executive summary/abstract would be helpful.
- o The study appears to make unrealistic assumptions regarding ethanol movement, stating:

"With credit trading, it is possible that most of the ethanol used to meet the requirements could be used in one part of the country (e.g., the midwest) or during one season (e.g., the winter)"

API's February 1994 comments on EPA's proposed ethanol mandate clearly refute these assumptions:

"...Chicago and Milwaukee comprise only 12% of the RFG market. Even if ethanol and ETBE comprised 100% of the oxygenate used in these markets, over 247 million gallons of ethanol in the summer and 307 million gallons of ethanol in the winter would still need to be shipped to either other RFG markets directly (for winter ethanol blending) or to MTBE/ETBE facilities for the manufacture of ETBE."

API comments at 16.

¹Energy Requirements and CO₂-Equivalent Emissions of RFG", Margaret Singh, March 17, 1994, and "A Comparison of Fuel Ethanol Supply and Demand Due to RFG and Gasohol", Kevin Stork, January 15, 1994.

DOE needs to incorporate the impact of transporting ethanol from the midwest on oil use, fossil energy use, and greenhouse gas emissions.

- o The draft study does not address the poor toxics performance of ethanol and ETBE relative to MTBE. Since refiners must adhere to the toxics reduction requirements, the mandated use of ethanol/ETBE will cause refiners to adjust the refining process to produce complying RFG. For example, non-summer RFG blended with 2.1 wt% oxygen as ethanol provides roughly seven percent less toxics reduction than a comparable RFG blended with MTBE. Similarly, ETBE provides roughly three percent less toxics reduction than MTBE in both summer and non-summer RFGs. The draft study does not appear to recognize the additional refinery energy use and greenhouse gas emissions that would result from this additional burden.
- o The draft study appears to base its energy and oil use analyses on the ethanol industry's best practices, while the CO₂ emissions estimates are based on average practice. At a minimum, DOE should base the energy and greenhouse gas emission impacts on the same, more realistic assumptions.

We recommend that DOE identify the incremental corn yield from the lowest 25% of annual production. This would more accurately reflect the fact that increased corn production would come from cultivating marginal acreage (with increased energy usage requirements).

- o The energy efficiency assumed to be associated with incremental ethanol production appears to be consistent with the proposed ethanol mandate and deserves to be updated. EPA stated in the technical support document to the proposed mandate:

"...the DOE study assumes that ethanol will be produced using current industry best practice. While no new technology is assumed, the best technology of all existing plants is essentially combined into a single plant."

Yet this basis is not supported by the ethanol industry's own estimates. Roger Burken of the Clean Fuels Development Coalition testified at the January 14 EPA hearing that "current ethanol production capacity in the U.S. of 1.3 billion gallons is sufficient to meet the production levels that would be required in this rule." Clearly, this indicates that much incremental ethanol will be produced from existing facilities, which EPA has acknowledged are less efficient than "the best technology". We urge DOE to update its efficiency assumptions for ethanol plants in recognition of currently underutilized ethanol plant capacity.

- o The draft study appears to ignore the significant impact of fertilizer on incremental acreage planted to supply the additional corn that will be grown under the proposed mandate. A September 1993 DOE report shows that the contribution of fertilizers to

greenhouse gas emissions is very significant.² DOE's study should clearly reflect the impact of increased acreage and increased fertilizer use in its energy use and greenhouse gas analysis.

- o The comparison of "old" to "new" ethanol leads to some conclusions that need additional explanation. For example, the new ethanol results in lower fossil energy use than old ethanol, but higher total energy use. Also, new ethanol results in higher greenhouse gas emissions than old ethanol. It is not clear what assumptions went into these balances.
- o It is not clear what assumptions are used in the cases labeled "RFG with EtOH (winter) and MTBE (year round)(new EtOH)" and "RFG with EtOH (winter) and MTBE (year round)(existing EtOH)" in Table VI. Has DOE assumed that more than 50% of RFG would contain ethanol during the seven month winter period, to provide an annual average of 30% ethanol blend use?

Stork Draft Study

- o In addition to the full opt-in scenario, the analysis should include a scenario that represents the actual level of opt-in for 1995. This could be accomplished by adding the known opt-ins to the "9 City" case, since the "9 City" case is no longer relevant.
- o The analysis ignores oxygenate demand due to the winter oxygenated gasoline requirements. The data exists to account for ethanol usage during the 1992-93 season, and the study should incorporate this data.
- o The impact of California on ethanol demand is probably overstated. The program only applies to Los Angeles and San Diego in 1995. (Statewide use of oxygenate will be required under Phase II California RFG beginning in March, 1996, but this program does not include any mandates for specific oxygenate use.)
- o The column denoting RFG fraction of total gasoline sales for Connecticut, Delaware, Massachusetts, New Jersey, and Rhode Island all should be 1.0 (i.e., 100% RFG). This is consistent with the current opt-in status of these states.
- o The footnote on page 4 seems to be in error. It should probably read "...use outside of nonattainment areas will not change"

We hope you find these comments useful. API urges DOE to finalize these reports as soon as possible so they can be considered as part of the current rulemaking. Both the draft and final versions of each report should be made part of the administrative record in this important rulemaking.

²"Emissions of Greenhouse Gases in the United States 1985-1990". Energy Information Administration, September, 1993.

Please send me a copy of the final versions of these studies when available. If you have any questions, call me at (202) 682-8565.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Greco", with a stylized flourish at the end.

Robert Greco
Senior Regulatory Analyst

cc: Paul Machicic, EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



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THE ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Honorable John D. Dingell
Chairman, Committee on Energy
and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Thank you for your letter of December 16, 1993, in which you request a response to certain questions regarding the low-sulfur diesel fuel requirements of the Clean Air Act (Act), and the diesel dye requirement of the Omnibus Budget Reconciliation Act of 1993 (OBRA), including certain concerns raised by Senator Ted Stevens about application of the OBRA dye requirements in the State of Alaska.

In response to your questions, I have enclosed information about the low-sulfur diesel requirements as they apply to Alaska, Alaska's request for a waiver from these requirements, and issues which have arisen regarding the use of low-sulfur diesel fuel and how the Environmental Protection Agency (EPA) has dealt with these issues. I have also enclosed information regarding EPA coordination with the Internal Revenue Service (IRS) to ensure consistency between EPA's and OBRA's dyeing requirements. However, I understand that the Department of Treasury has provided you with a more detailed explanation of the OBRA dyeing requirement and how it relates to Alaska.

EPA's Office of Mobile Sources will continue to work closely with industry, the State of Alaska, and the Internal Revenue Service to resolve these concerns and any others that may arise. If you have any additional questions, please contact me or Richard D. Wilson, Director, Office of Mobile Sources, at (202) 260-7645.

Sincerely,


Carol M. Browner

Enclosure

STATUS REPORT ON DIESEL SULFUR REQUIREMENTS
EPA Office of Mobile Sources

Alaska's Petition to be Exempted from the Low-Sulfur Requirements

On February 12, 1993, the Governor of Alaska submitted a petition to the Environmental Protection Agency (EPA) requesting that communities in Alaska served by the Federal Aid Highway System (FAHS) be exempted from the low-sulfur diesel fuel requirement of section 211(i) of the Clean Air Act (Act) for three years (until October 1, 1996). In addition, the Governor requested that remote communities in Alaska, not accessible by the FAHS, be permanently exempted from the low-sulfur diesel fuel requirement. The petition was submitted pursuant to section 211(i)(4) of the Act and is based on geographical, meteorological and economic factors unique to Alaska, including the high costs associated with producing arctic-grade, low-sulfur diesel fuel in Alaska, the availability of low-sulfur diesel from out-of-state refiners, the costs associated with importing the fuel, and the costs of storing and distributing the fuel. In addition, given Alaska's current air quality status, the environmental benefits of using low-sulfur diesel fuel in Alaska would be minimal. In response to this petition, the Agency published a notice in the Federal Register (58 FR 45307, August 27, 1993), proposing to grant the exemptions as they were requested in the petition. The notice of final decision for this petition was published in the Federal Register on March 22, 1994.

In the petition, the Governor indicated that during the three year exemption period for areas served by the FAHS, the State of Alaska plans to establish a task force to evaluate further the feasibility of using low-sulfur diesel fuel in areas on the highway system. Among the members of the Task Force will be representatives from the Alaska Department of Environmental Quality, Alaska diesel fuel refiners, and the EPA. If the results of the evaluation show that it is not economically feasible to produce or import an arctic-grade diesel fuel that meets the 0.05% sulfur requirement, and that it would not be feasible for EPA to impose an intermediate sulfur content standard for motor vehicle diesel fuel used in areas served by the FAHS, and no other alternatives are discovered, the State will have adequate time to prepare and submit another exemption request.

One refiner in Alaska has discovered a relatively low-cost approach to producing a diesel fuel that meets the low-sulfur requirement. Although the low-sulfur diesel produced by this refiner does not meet the American Society of Testing and Materials (ASTM) viscosity specifications for No. 1 diesel, the Agency believes it is possible that over the next few years, other refiners in Alaska may find low-cost approaches to produce a marketable, low-sulfur diesel fuel. Hence, EPA proposed to

a marketable, low-sulfur diesel fuel. Hence, EPA proposed to grant the three-year exemption as requested by the Governor of Alaska.

OBRA Dyeing Requirements

The Agency has worked closely with the Internal Revenue Service (IRS) to ensure consistency between dyeing requirements of the Omnibus Budget Reconciliation Act of 1993 (OBRA) for diesel fuel and EPA's requirements. While Alaska's exemption from the sulfur requirement of the Clean Air Act means that diesel fuel in Alaska will not have to be dyed on the basis of sulfur content, the IRS has informed us that OBRA does not provide for an exemption or delay in meeting its dyeing requirements. The Department of Treasury will be providing you with a more detailed explanation of the OBRA dyeing requirement and how it relates to Alaska.

Issues Regarding Low-Sulfur Diesel Implementation

During October and November, 1993, EPA received approximately 250 phone calls from consumers, complaining that they were experiencing problems with fuel pumps in their diesel powered motor vehicles. In October, EPA staff began collecting all information being reported and a dialogue was begun among the engine manufacturers, state and local agencies, the oil industry and the general public. The goal was to identify the cause of the reported problems and to find a solution. To that end, on November 22, 1993, EPA held a meeting with the California Air Resources Board (CARB), the American Petroleum Institute, the Engine Manufacturers Association, the American Trucking Association, and several independent entities to share information and work together to resolve the issue.

We have determined that the problems are predominantly occurring in older vehicles that are equipped with nitrile rubber seals which, over time, have apparently lost sealing ability. We have received no reports of repeat failures once the seal is replaced with a new, nitrile rubber seal. Furthermore, by the end of November, the number of complaints reported to EPA had diminished significantly.

Subsequently, a second issue arose which prompted additional, more recent phone calls by individuals who fear that the low-sulfur diesel fuel has insufficient lubricating properties. However, in spite of some reports of driveability problems and accelerated fuel pump wear, and suspicions that these problems are related to low-sulfur diesel fuel, the evidence to date indicates that the vast majority of low-sulfur fuels have adequate lubricity. The Agency is currently planning meetings with diesel fuel marketers to insure that all diesel fuels are adequately additized for lubricity.

Despite the apparent abatement of the reported problems, EPA continues to actively work with industry representatives and CARB toward identifying the cause of the reported problems. Please be assured that my staff will continue to monitor the situation and take appropriate action as circumstances warrant and authority exists.

California Air Resources Board (CARB) Actions

While EPA is unable to fully relay to you the actions CARB has taken in response to the problems that arose in the implementation of their low-sulfur, low aromatics diesel fuel program, we are aware that Governor Wilson asked CARB to hold a meeting on October 15, 1993, in response to complaints about the program. The Governor then convened the Diesel Fuel Advisory Committee to look at all aspects of the problems being reported. This committee submitted a report to Governor Wilson, dated November 15, 1993, detailing the effects of the diesel fuel program on California since October 1, 1993, including recommendations on how best to proceed with implementing the program. (The report is attached.) Subsequently, the Governor directed a task force to identify the cause and extent of mechanical problems which have been reported since the diesel fuel requirements were implemented. The Governor has requested the task force to report its findings by February 19, 1994.

November 15, 1993

TO: The Honorable Pete Wilson
Governor of California

FROM: Diesel Fuel Advisory Committee

REPORT AND RECOMMENDATIONS

Introduction: Your letter of October 15 to Chairwoman Sharpless aptly framed the policy dilemma which faces California. On the one hand we have a regulation on the reformulation of diesel fuel which seeks to attain critical public health benefits for our citizens with related air quality improvements. On the other, the implementation to date has produced high prices, allegations of fuel shortages in the midst of a harvest, a reduction in the number of refiners seeking to supply the California market, and widespread, but not yet fully documented, reports of equipment failure attributed to the new fuel. In the some six hours of public hearings conducted on November 8, your committee heard extensively from the trucking and agricultural witnesses who affirmed their position that the regulation should be suspended for at least six months. Competing views expressed at prior hearings indicate continued commitment to the regulation from small and large business interests, refiners, environmentalists, and local governments.

In the report which follows we will address the factors which have combined to produce these conditions, provide preliminary data on the dimension and nature of economic and mechanical problems, frame the policy

choices which you now confront, and make recommendations as to what we believe are the most appropriate corrective steps. While we must frequently underscore the incomplete nature of our data, the efforts of the member agencies, industry sources and diesel fuel users permit us to dispel many myths and to scale back some of the fiction in the direction of fact.

- I. The current market for diesel fuel in California is marked by unacceptable retail prices *and* unresolved fear of mechanical consequences of utilizing the CARB reformulated fuel. The combination of these factors has led to alarmingly lower sales of diesel fuel in California owing to "fuel lifting" from neighboring states with a consequent loss of business receipts, tax revenues and jobs.

A. Price:

No one disputes the fact that in the wake of the October 1 implementation date for the sale of the CARB reformulated fuel prices shot up to unanticipated and intolerable heights reaching a peak around the middle of October. Since that date they seem to have been drifting down. The retail price trend is in the right direction but the pace is unacceptable and at war with the current abundance of supply. The California experience was paralleled in the other states which were adjusting to the introduction on the same date of diesel fuel reformulated to meet federal Environmental Protection Agency mandates.¹

¹October 1 was selected as the introduction date for two reformulated diesel fuels each designed to improve air quality impacts. The federal, or "EPA fuel" is designed to lower the sulfur content of the fuel. A similar fuel has been deployed by the Air Resources Board as early as 1985 in the greater Los Angeles area. In 1988 the Board adopted diesel fuel regulations, with a 1993 statewide implementation date, to limit both aromatic hydrocarbons as well as sulfur content. The goal of the "CARB fuel" was to achieve significant reductions in emissions which daily exacerbate the ozone content while spewing particulate matter into our air. There was a second significant difference between the federal and California regulations. The EPA regulations applied to on-road vehicles only. Off-road use, primarily agricultural consumption, was exempted. The California regulations applied to both on-road

Our survey data shows that, while prices rose in non-California markets, the magnitude of the rise was significantly smaller.² Some price increase had been anticipated by both federal and state officials. Predicated upon data supplied by refiners, it was estimated that the additional cost of producing a gallon of fuel compliant with EPA regulations would be from two to five cents. Fuel formulated to comply with CARB regulations would cost an additional two to eight cents per gallon.³ In addition to these new cost factors, diesel prices would escalate on October 1 reflecting the imposition of the Clinton Administration's excise tax. In the immediate aftermath of the attempted implementation the price consequences bore no relationship to these projections. By mid-October the pump price of a gallon of diesel fuel in Northern California had risen 24¢ from \$1.28 to \$1.52. In Southern California the price rose from \$1.27 on August 22nd to \$1.45 on October 15. Nearly a month later, prices have retreated modestly and stood at \$1.41 in both the north and south.

There are two ways of accounting for these abrupt and now sustained price increases. The first view, embraced in an interagency staff report to your Committee, suggests that it is the net consequence of a series of unfortunate events and circumstances. We are told that:

During September 1993, there was an unanticipated

and off-road consumption of diesel fuel. California adopted the October 1 implementation date in response to the federal schedule so as to avoid a double disruption of the diesel fuel market.

²A comparison of the Chicago, New York and Houston markets is reflected in the chart attached as Appendix A to this report.

³The range of additional cost for individual refiners was from two to five cents for EPA diesel and from two to eight cents for CARB formulated fuel. The range can be explained by the fact that the governments mandated emission reductions not specific fuel formulas. Thus the industry was left to its own devices in selecting refining techniques and formulations which would achieve the emission reductions. Also note that California fuel would exceed the EPA regulations and thus the net cost difference was anticipated to range from a low of one cent to a high of five cents.

heavy demand for diesel, well above the normal seasonal increases. For example, during late August and early September 1993, Chevron reported a 35 percent increase in demand for diesel fuel. Three major refiners, Chevron, Unocal, and Texaco, experienced longer than expected "turnaround"⁴ or minor equipment failures, causing a temporary loss in production. . . . In addition, the increase in federal taxes encouraged many users to top off their tanks in late September to avoid the increase in costs. Some industry participants report that the Air Resources Board requirement that fuel tanks be emptied of non-complying fuels prior to October 1 also encouraged "topping-off", and prompted refiners and others to "sell off" their inventories at reduced rates. There were reported, though yet to be documented, "runs on the racks" which may have depleted refinery inventories and may have lead to spot shortages. With depleted inventories, refiners had difficulty keeping up with demand.

During September and early October 1993, distribution problems were also occurring, especially in Northern California. Overall, the distribution system was adjusting to accommodate fewer suppliers of motor vehicle diesel fuel. Some independent marketers, for example, had to find new suppliers of diesel fuel. ARCO pulled back from its historic distribution points in the Central Valley; Unocal did not supply the volumes allowed under the CARB variance.

There is an alternative explanation rooted in accusations of greed turned to desperation. Proponents of this thesis suggest that refiners saw the CARB regulations as imposing significant up front costs which they sought to quickly recover through high prices. Refinery prices substantially enhanced beyond the industry cost addition estimates were passed onto distributors who further escalated them in their transactions with retail sellers. If the assumption was that these dramatically increased prices would be accepted by a public with little

⁴Turnaround is the time it takes to change over production from one fuel to another.

capacity for fuel substitution, it overlooked the possibility of fuel lifting.⁵ Once these prices hit the retail market, some sellers began to see a dramatic decrease in demand. This was especially true for volume sellers dependent upon the interstate truck and bus trade. Their customers availed themselves of opportunities to purchase non-CARB fuel from cheaper out of state sources. It is not difficult to imagine that a retailer with significant volume decreases would be reluctant to reduce the per gallon price of remaining sales. The Committee has been informed by staff that retail prices in Nevada, Arizona and Oregon may now have risen to a point which nullifies the economic advantage of fuel lifting. If this is true the two owners of large truck stops do not report any evidence of sales recovery.⁶

A composite reconstruction of events may be most accurate. Under this perspective one can accept the unfortunate circumstances of the above normal seasonal demand for fuel, the longer than anticipated "turnaround" and the equipment failures. Standing alone these factors would account for an imbalance in supply and demand but they would not result in the panic run up

⁵The captive nature of the transportation and agricultural owners of diesel equipment is rooted in the inability of the engines to consume any other type of fuel. "Fuel lifting" is a term describing a change in purchasing patterns. In the case of a bus or truck owner with access to fuel supplies in neighboring states there is opportunity to switch refueling patterns to take advantage of lower prices or a fuel formulation deemed to be less hazardous to equipment. Fuel lifting did not emerge for the first time in the wake of the October 1 implementation. The Air Resources Board estimates that the practice amounted to a manipulation of 10% of the demand prior to the end of September due to price competition and tax structure differences between California and surrounding states.

⁶ What seems to be perpetuating the fuel lifting practice is the fear of mechanical damage which will be addressed more extensively later in the report.

It should be noted that virtually all of the fuel supplied to Nevada and Arizona retail outlets is refined in California. Thus we should take little comfort from price rises reported in those jurisdictions, it merely constitutes further evidence that inflated wholesale prices translate into inflated prices in the course of distribution and, ultimately, retail outlets. Fuels supplied at wholesale in Oregon, Idaho, Utah and New Mexico come from non-California refineries, and prices bear little relationship to California conditions.

of the price. According to witnesses, one industry practice to mitigate the consequences of supply and demand imbalance is for refiners to limit customers to historical levels of purchase so as to prevent hoarding and opportunistic attempts to "corner the supply." For reasons which have not been explained, the refiners elected not to follow this practice and instead to sell their inventories to the highest bidder. In this manner the wholesale price shot up eleven to fifteen cents per gallon during the last week in September in Northern California. It was not until prices had reached unprecedented heights that refiners began to enforce historic purchase limitations.

B. Availability:

On the date you acted to appoint the Committee there was widespread fear that fuel shortages would idle farm equipment during the height of our annual harvest. This did not happen. Agricultural users were confronted by higher prices and in Northern California distributors had to engage in some near heroic efforts to ensure ongoing fuel availability. The Air Resources Board is to be credited with several steps designed to relieve supply shortages. In August, the Board issued variances to several refiners deemed unable to comply with the October 1 implementation date.⁷ Further variances were issued in September. As a result of your intervention on October 15, the

⁷These variance permits came at a price. The Air Resources Board acted upon the condition that the refiner agree to a six cents per gallon "mitigation fee." Funds generated by these agreements range from several millions for one refiner to multiples of thousands for others. It is your Committee's understanding that in each case the ultimate disposition of the funds are subject to agreement between the refiner and the ARB. Sums equalling the variance fees are in the custody of the refiners on interest bearing deposits. During the course of the hearing several members of your Committee noted that these monies were ultimately paid by California consumers not the refiners. Accordingly, there were complaints that the refiners should have any voice in determining how those funds were to be used. Those who have suffered mechanical breakdowns and loss which they attribute to the use of the CARB fuel strongly contend that they should be reimbursed for their out of pocket loss from these variance funds.

Staff estimates predict that the total deposits in variance fee accounts from all sources will total ten million dollars.

Board held a public hearing and suspended the off-road application of its regulations until December 4, 1993.⁸ Through these combined efforts, fuel was available albeit at exorbitant prices, during the harvest. Supply shortages are now corrected and, as we shall note, there is no shortage of diesel fuel in California for any use and refineries have been able to replenish their inventories.⁹

C. Effect on vehicle performance:

Shortly after the introduction of the CARB fuel in California and EPA fuel throughout the United States, reports began to circulate of fuel system failures and leaks associated with the fuels. The staff report to your Committee suggests that the such problems are not centered in California but are being experienced across the nation. Data supplied by Chevron Research and Technology Corporation to the Air Resources Board suggests that the engine performance problems are geographically widespread but that the number of vehicles affected is small, amounting to less than one percent of the diesel

⁸The Board has clarified that fuel purchased prior to the 4th of December may be legally used through February 17, 1994.

⁹The inter-agency staff reports that:

[d]uring the final week of October, the daily production of diesel exceeded the demand for diesel fuel by about ten percent above the seasonal demand, thereby allowing refineries to replenish their inventories. Since the beginning of October 1993, the refiners have increased their production and were operating at their maximum capacity. By October 26, 1993, refiners were producing CARB and variance diesel at approximately 220,000 barrels per day, well above the historical statewide average use of 155-175,000 barrels per day by the diesel vehicle market.

[As of November 5], the previous condition of tight supply of both U.S. EPA and CARB diesels has eased to the degree that overall refinery production has begun to decline. A telephone survey of California refiners on Monday, November 1 indicated that a production rate of approximately 209,000 barrels per day. At this level, refiners are continuing to rebuild their inventories and reserves of diesel fuel.

Staff report, page 6.

powered units in the United States.¹⁰ Industry users, particularly members of the California Trucking Association, contend that there is a dramatic increase in the reported incidence of such problems in California and have submitted data to substantiate their charges. While we acknowledge that mechanical problems exist, the following questions remain:

- 1) Are the mechanical problems related to the introduction of the new fuels?
- 2) Are the mechanical problems related to the levels of allowed sulfur?
- 3) Are the mechanical problems related to the levels of allowed aromatics?
- 4) Or are the mechanical problems related to a combination of the above?

Your Committee readily admits to being unable to resolve these conflicting claims. We have discovered that the pre-introduction testing of fuels formulated to meet the CARB emission targets centered on air quality improvements rather than mechanical consequences. It would be the essence of understatement to suggest that users are dissatisfied with such a discovery. We have asked all segments of the industry, users, equipment suppliers and repair facilities, and refiners to continually update our information. We have been particularly concerned to narrow the reported incidents to particular types of diesel engines or common factors such as patterns of use or total mileage.

We can offer a critical conclusion and two warnings.

1. The fear of adverse mechanical consequences dramatically outstrips the factual evidence of harm. It is clear to us that irrespective of the actual extent of mechanical failure there is widespread fear that use of

¹⁰A factor which adds mystery to an already confused picture is that the low sulfur fuel in use in greater Los Angeles since 1985 has not led to significant reports of increased fuel leaks or engine wear. This fact is particularly difficult to reconcile with the claim that EPA formulated fuel, which we believe to be very similar to that which has had nearly eight years of use in the greater Los Angeles area, is responsible for a rash of fuel leaks in other states.

CARB fuel will harm equipment. This factor may be of greater influence than price considerations in explaining the devastating incidence of fuel lifting by inter-state trucks and busses.¹¹ Farmers complain of an inability to rely upon equipment such as water pumps and freeze protection air movers if they are forced to use CARB fuel. This is true notwithstanding a remarkably low incidence of any documented evidence of farm equipment failure. Until these fears can be displaced by facts there will be no acceptance of this fuel.¹²

2. **Warning:** current data on mechanical problems may not be reliable in indicating short-term consequences of using CARB fuel. We say this because the presence of lifted fuel from other jurisdictions and "variance fuel" which is still being manufactured and consumed in California befuddle our ability to link such mechanical problems as can be substantiated to the CARB reformulation.

3. **Warning:** in addition to fuel system leaks and failures, users fear that in the long term low aromatic fuel may increase engine wear owing to a decrease in "lubricity." Evidence from Sweden which has nearly two years of on road experience with fuel formulated to much more stringent reductions in both sulfur and aromatic hydrocarbons suggests that these fears are unfounded. As we have noted, the principal difference between the CARB and EPA reformulations lie in California's ambition to go beyond sulfur reduction to attacking the particle content of diesel emissions. The technique is

¹¹The most recently compiled staff material focuses on the survey results of truck stop facilities in California by the Air Resources Board. The statistics deal with data supplied by fourteen respondents. They show a volume sales reduction ranging from a high of a 43% loss to a low of one entity which reports a 2% gain in sales. On average, the figures report a 21% decline in sales volumes since the first of October.

¹²The Air Resources Board has begun an aggressive effort to collect and study data on user experiences. A toll free "800" hotline has been established, fleets and repair facilities surveyed, roadside checks implemented, and communications established with engine manufacturers and refiners. Fuel samples are being collected in an effort to link mechanical problems or failures to specific patterns of consumption. These efforts are detailed at pages 11-14 of the attached staff report.

to mandate emission levels which are currently pursued through refining techniques designed to dramatically lower the incidence of aromatic hydrocarbons in the reformulated fuel. There is substantial evidence that a secondary consequence of such formulation is a decrease in the degree to which the fuel lubricates engine parts in the course of combustion. Large California refiners who face the more stringent aromatic requirement of ten percent, however, report that lubricity additives have already been included in their compliance fuel formulations.

At the hearing Committee members repeatedly inquired as to the information or tests upon which the Air Resources Board relied in concluding that fuel formulated to meet its emission criteria could be consumed without adverse consequences to the on and off road equipment in California. We were referred to "the Swedish experience" and the introduction there of diesel fuel formulated to attain ultra-low levels of both sulfur and aromatic hydrocarbon emissions. We heard little concrete evidence of the experience within the grasp of either the Air Resources Board staff or their contract advisors.

On our own motion, we have made extensive contact with both government and industry sectors in Sweden. The evidence is very conclusive with respect to Swedish fuel formulations and the ability of both on and off road diesel equipment to utilize low sulphur and aromatic hydrocarbon formulated fuels without increased wear or incidence of mechanical failure.¹³ As of January 1, 1992, following a year of testing in city transit buses, Sweden implemented emission standards for diesel fuel which are significantly more ambitious than any pursued in the United States. Whereas CARB fuel tolerates sulphur at the rate of 500 parts per million, Sweden caps the allowable presence at 10 parts per million for "city diesel" and 50 parts per million for other uses. California regulations permit aromatic hydrocarbons to range from 10% for

¹³Reports suggest that the initial Swedish experience revealed a high incidence of mechanical problems in those vehicles using rotary-style injectors (primarily light duty vehicles and automobiles) owing to lubricity issues. Refiner injected additives have now corrected this problem without apparent adverse impacts on air emissions. This issue should be further explored by the investigatory group as recommended in section IV.

major refiners to 20% for small refiners. In Sweden city diesel is capped at 5% with 20% being the maximum allowed for other uses.

Repeated telephone inquiries to major domestic manufacturers of diesel engines failed to elicit cooperation in evaluating this Swedish data. Contrary to the representations by manufacturer witnesses at our hearing that they had significant numbers of units in use in Sweden, our Swedish sources report an overwhelming dominance of Volvo and Saab products (80% of the market) with the balance being dominated by other European manufacturers. The major unresolved question for California given the Swedish experience is whether it is fair to conclude that the on and off road equipment being used without adverse incident in Sweden compares to the basic design and operating characteristics of equipment in use in California.¹⁴

II. The effects on the California economy:

It is difficult to quantify a response to your direction that we determine the impact on our state's economy of the price escalations and performance problems associated with the introduction of CARB fuel. Clearly it has been negative. Any industrial, agricultural or commercial pursuit which is dependent upon transportation has suffered direct or indirect negative effects. To the extent that providers have been able to pass these costs onto customers the impact has been direct. Customers who, for one reason or another, have been spared a direct pass through suffer indirectly through the weakening of the transportation infrastructure upon which they are dependent. Both truckers and bus operators assert that they operate on very slim margins which are

¹⁴It is interesting to contrast the attitude and cooperation of a foreign government and representatives of foreign commerce with that of domestic manufacturers. On Friday, November 12, telephone and FAX inquiries were made by the California Public Utilities Commission. Within hours detailed information on both fuel formulation and the composition of on and off road equipment had been received from Sweden. When Commission representatives contacted the very manufacturers who had promised data on Monday, November 8, they were met with claims of "proprietary" knowledge, fear of liability, or an inability to make a timely response.

dramatically eroded by increased fuel costs. We note that California's schools fall into both categories of victims. Those which have been forced to absorb these enhanced fuel costs are spending money which would otherwise be directed toward classroom support. A feared consequence is an exacerbation of the current trend to further reduce bus transportation from school district services. The consequent shift of the student population to non-public transportation increases traffic congestion and adds to mobile source air pollution.

The diesel fuel industry has not escaped damage. The most prominent evidence at our hearing was of a dramatic downturn in sales volumes by diesel fuel retailers. Two major truck stop owners, one in Redding the other in West Sacramento, testified to a 40% drop in business since the introduction of the CARB fuels.¹⁵ Fuel lifting is blamed with the fear of mechanical damage running neck and neck with the issue of price. The secondary consequences of reduced business receipts is a loss of sales tax revenue to government and increased unemployment owing to staff layoffs. Equally worrisome is the altered structure of the refining component of California's economy. There is evidence that a large number of refiners have simply declined to manufacture CARB fuel. Rather than lay out the cost of the equipment modifications and altered production techniques, they have elected to exit from this aspect of the business. The result is that our diesel fuel infrastructure is dependent upon a reduced number of suppliers with concentrated market shares. One need not center on the fear of conscious price manipulation of unconscious parallelism to see in this smaller number of sellers a threat to the stability of this industry.¹⁶

¹⁵As noted, staff surveys reveal an average decrease in sales volume of 21% since October 1. The experience of individual retailers seems to be heavily influenced by the nature of their historic customer base and the degree to which it is dependent upon interstate buses and trucks. The greater the relative dependence and the closer the retailer is to the boarder with a state which offers non-CARB formulated fuel for sale, the greater the incidence of fuel lifting and corresponding loss of sales by the California seller.

¹⁶The situation may be open to self-correction. In the wake of the 1985 reformulation of fuel in the Los Angeles basin a number of refiners elected to exit the market. In time some

A major equipment outage could well produce local supply disruptions and price volatility.

These arguments notwithstanding, several sectors of the California economy stand to benefit from this least cost strategy for emissions reductions. Without these regulations, the Air Resources Board and local air districts would be required to adopt potentially more costly control measures in order to meet health and clean air standards mandated by the Federal and State Clean Air Acts.

III. Options:

The Advisory Committee considered the following points and contentions regarding the possible rescission, suspension or modification of the CARB diesel fuel regulations.

1a. Rescission:

Arguments favoring rescission: Significant air quality benefits can be attained by simply coordinating California's policy on diesel fuel formulation with federal EPA standards. Sulfur content would be reduced for on-road users with no disruption or burden imposed upon off-road users which include critical agricultural applications. Fuel lifting arising from real or fanciful fears of mechanical damage would be ended. Distribution patterns could return to normal with no distinction being drawn between fuel formulated for use in California and surrounding states. The image of California as a market besieged by regulation would be refuted.

Arguments against rescission: Recognize that the CARB fuel standards sought legitimate and attainable improvements in air quality and corresponding health benefits. Market forces can be expected to eventually drive prices to a lower level. Rescission will penalize those

returned while new entrants established a competitive presence.

refiners who made good faith efforts and undertook significant investments to comply with the CARB regulations. Not only will that investment be stranded (and likely passed onto consumers over a range of products), but the private sector will have learned a critical lesson that the State cannot be trusted to stay the course. The negative ramifications for further clean fuel regulations will be substantial and the State's policy on low and zero emission vehicles will be placed in serious jeopardy.

In the final analysis defeating the diesel fuel regulations and sabotaging the stage for implementation of the reformulated gasoline and low and zero emission vehicles will significantly damage California's economy and business climate. This is because the federal deadlines for attaining minimum air quality standards loom as a fact. Already we have imposed heavy burdens on stationary sources in order to make the incremental progress realized to date. Eighty per cent of the remaining pollution comes from mobile sources. To refuse to address this problem and impose further burdens on stationary sources is neither practicable nor is it fair. In the final analysis, Californians must have safe and affordable transportation but it will matter little if they do not have commercial and industrial jobs.

1b. Suspension:

Arguments in favor of suspension: With the exception of refinery representatives, there was virtual unanimity from the agricultural and trucking witnesses at our hearing that the CARB regulations should immediately be suspended for at least six months. The singular argument was the fear of mechanical damage associated with the use of a low aromatic hydrocarbon formulated fuel. Proponents of suspension argue that the State should use a six month suspension period to test extensively for mechanical consequences. Such tests should involve the active participation of equipment manufacturers and intended users. It was suggested that state vehicles be used as guinea pigs for out of the laboratory experiments.

Arguments against suspension: All of the "California blinked and is not to be trusted" arguments mounted against rescission were repeated here in a slightly muted tone. Further, at the expiration of the suspension period the state would be forced into another period of transition. If the mechanical problems are the result of the introduction of a new fuel, a second round of fuel pump seal related leakage may result. The replication of the pain that has already been sustained is unacceptable.

1c. Modification:

Arguments in favor of modification: Here the major suggestion is that the CARB rules be limited to on-road applications. The modification would satisfy agricultural complaints and fears.

Arguments against modification: This solution would give California the worst of all possible outcomes. We would still demand the production and distribution of low aromatic formulation but, in addition, would continue the production and distribution of a high sulfur fuel. Distribution costs would rise and production economies of scale would not be realized with inevitable upward pressure on end user prices whether the customer be in transportation or an off-road user.

IV. Recommendations:

Our first recommendation: Continue to endorse the clean fuels health and environmental strategy.

We have attempted to provide you with a fair and factual summary of the arguments in favor of rescission, suspension and modification. They have merit, but in the final analysis they are outweighed in our judgment by the simple fact that California has no choice but to clean up the air emissions from mobile sources. Further restrictions on stationary sources such as factories and commercial centers are neither practicable nor fair.

We also provide a number of suggestions to meet both the fear and facts of mechanical problems associated with the consumption of reformulated fuel.

2. UTILIZE AN INDEPENDENT INVESTIGATORY GROUP, TO REPORT BACK TO THE SECRETARY OF CAL-EPA WITHIN 90 DAYS, TO ASSESS THE EXTENT OF MECHANICAL PROBLEMS AND WHETHER THEY ARE ATTRIBUTABLE TO THE CARB AND/OR US-EPA FUEL LUBRICITY AND AROMATIC HYDROCARBON CONTENTS. THE INVESTIGATORY GROUP SHOULD INCLUDE AVAILABLE EXPERTISE FROM THE BUREAU OF AUTOMOTIVE REPAIR, THE AIR RESOURCES BOARD, PRIVATE INDUSTRY AND ACADEMIA.
3. AS THE STUDY WARRANTS, THE SECRETARY OF CAL-EPA SHOULD DEVELOP CRITERIA AND PROCEDURES, IN CONJUNCTION WITH THE BUREAU OF AUTOMOTIVE REPAIR, TO REIMBURSE USER CLAIMS OF MECHANICAL DAMAGE USING, TO THE EXTENT THAT THEY ARE ADEQUATE, THE VARIANT MITIGATION FEES TO RECOMPENSE LEGITIMATE CLAIMS FOR REPAIR COSTS.
4. FURTHER EVALUATION AS TO THE APPROPRIATENESS OF ESTABLISHING A FLOOR AROMATIC HYDROCARBON CONTENT AND CETANE LEVEL SHOULD ALSO BE CONDUCTED BY THE INVESTIGATORY GROUP, WITH EMPHASIS ON BUILDING UPON THE SWEDISH EXPERIENCE WITH LOW AROMATIC FUELS LEADING TO MECHANICAL DAMAGE.
5. DIRECT AN INTERAGENCY TASK FORCE, CHAIRED BY THE SECRETARY OF CAL-EPA, TO REVIEW IMPLEMENTATION OF THE CARB REFORMULATED GASOLINE REGULATION IN LIGHT OF THE EXPERIENCE GAINED FROM THE DIESEL RULE, AND TO ADOPT SUCH CONTINGENCIES AS ARE NECESSARY TO AVOID A REPETITION OF THE CURRENT EXPERIENCE.

6. DIRECT THE DEPARTMENT OF FINANCE TO DETERMINE THE LOSSES EXPERIENCED BY SCHOOL DISTRICTS RESULTING FROM THE FUEL PRICE ESCALATIONS.
7. DIRECT THE PUBLIC UTILITIES COMMISSION TO EXPEDITIOUSLY REVIEW THE APPLICATIONS NOW BEFORE IT TO INCREASE THE MINIMUM RATE TARIFF.

Respectfully submitted,

/s/Daniel Wm. Fessler, President, Public Utilities Commission
Chairman of the Committee

/s/Maureen DiMarco, Secretary, Office of Child Development and Education

/s/Matthew K. Fong, Member, Board of Equalization

/s/Russell Gould, Director, Department of Finance

/s/Charles Imbrecht, Chairman, Energy Commission

/s/Jananne Sharpless, Chair, Air Resources Board

/s/James Strock, Secretary, Environmental Protection Agency

/s/Henry J. Voss, Director, Department of Food and Agriculture



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 21 1991

Honorable John D. Dingell
Chairman
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

THE ADMINISTRATOR

Dear Chairman Dingell:

Today I have signed a Notice of Proposed Rulemaking seeking comment on the appropriate environmental regulations for the importation of foreign reformulated gasoline. Enclosed please find a copy for your review. Through discussions with your staff, I am fully aware of your interest in EPA's approach to this portion of its reformulated gasoline program.

I want to assure you that I am strongly committed to a fair and open process. To this end, the proposal seeks broad and comprehensive public comment on the concerns you have posed, including the extent of air quality impacts of allowing foreign refiners to petition for an individual baseline, any alternative solutions to the disparate treatment of foreign nations, and any of the factual assumptions underlying the proposal.

As with all rulemakings, we will fully consider all comments and information received before determining whether to issue a final rule and the content of any final rule. As I am sure you are well aware, in no way does a Notice of Proposed Rulemaking guarantee that I will ultimately decide to either sign a final rule at the conclusion of the rulemaking process or that a final rule would be identical to that which was proposed. The fairness and integrity of EPA's rulemaking process has been among my highest priorities as the Administrator of EPA, and we will not vary from those high standards.

As always, my greatest responsibility is protecting our nation's health and environment. I look forward to continuing consultations with you on this matter. I also look forward to working with you to achieve our common environmental agenda. Please feel free to contact me should you have any questions concerning this or any other matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Carol M. Browner".

Carol M. Browner



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 21 1994

Honorable Max Baucus
Chairman
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

THE ADMINISTRATOR

Dear Chairman Baucus:

Today I have signed a Notice of Proposed Rulemaking seeking comment on the appropriate environmental regulations for the importation of foreign reformulated gasoline. Enclosed please find a copy for your review. Before signing this proposal, my staff and I consulted extensively with you and your Committee staff over EPA's approach to this portion of its reformulated gasoline program.

I want to assure you that I am strongly committed to a fair and open process. To this end, the proposal seeks broad and comprehensive public comment on the concerns you have posed, including the extent of air quality impacts of allowing foreign refiners to petition for an individual baseline, any alternative solutions to the disparate treatment of foreign nations, and any of the factual assumptions underlying the proposal.

As with all rulemakings, we will fully consider all comments and information received before determining whether to issue a final rule and the content of any final rule. As I am sure you are well aware, in no way does a Notice of Proposed Rulemaking guarantee that I will ultimately decide to either sign a final rule at the conclusion of the rulemaking process or that a final rule would be identical to that which was proposed. The fairness and integrity of EPA's rulemaking process has been among my highest priorities as the Administrator of EPA, and we will not vary from those high standards.

As always, my greatest responsibility is protecting our nation's health and environment. I look forward to continuing consultations with you on this matter. I also look forward to working with you to achieve our common environmental agenda. Please feel free to contact me should you have any questions concerning this or any other matter.

Sincerely,

Carol M. Browner



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 28 1994

OFFICE OF
GENERAL COUNSEL

Mr. David B. Finnegan
Counsel
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515-6115

Dear Mr. Finnegan:

Enclosed are the documents identified to date by the Environmental Protection Agency (EPA) in response to Chairman John Dingell's letter of March 25, 1994 to Administrator Carol Browner. These documents concern reformulated gasoline produced by foreign oil refiners, including those located in Venezuela. Our goal has been to provide a prompt and complete response to the request of the Committee on Energy and Commerce.

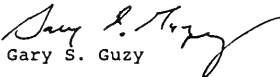
For your convenience, the attached list describes the various categories of documents provided by EPA. We request that the documents in categories 1, 2, 4, 9, 12, and 13 preliminarily be treated as confidential by the Committee, to avoid any potential prejudice to the United States due to the possibility of a Venezuela GATT challenge on this issue. However, we will work over the next few days to identify only those portions of the documents in these categories that raise confidentiality concerns, and we will provide you with this detailed information as soon as possible. In addition, we request that the Committee consider two other documents as confidential because these documents contain information that might be regarded as confidential business information under EPA's regulations. These documents are the single document in category 14, and a document marked as confidential in category 3.

Finally, EPA is not now forwarding certain documents received from the Department of State. We understand that the Department of State has received a similar document request from Chairman Dingell, and will make appropriate arrangements concerning the production of materials responsive to the Committee's request, as was done for a similar request for documents from the Senate Committee on the Environment and Public Works.

- 2 -

I will continue to serve as EPA's contact for information requests from the Committee on this issue. Please feel free to contact me should you have any questions or require any additional information. I may be reached at (202) 260-8040.

Sincerely,


Gary S. Guzy

Enclosure

CATEGORIES OF DOCUMENTS

- I. EPA GENERATED OPTIONS PAPERS.
- II. NOTES OF EPA PERSONNEL, INCLUDING NOTES OF MEETINGS WITH OUTSIDE PERSONS.
- III. EPA GENERATED TECHNICAL DOCUMENTS.
- IV. NOTES OF EPA PERSONNEL, INCLUDING NOTES OF MEETINGS WITH OUTSIDE PERSONS.
- V. LETTERS RECEIVED BY EPA.
- VI. LETTERS PREPARED BY EPA, INCLUDING DRAFTS.
- VII. COMMENTS TO THE REFORMULATED GASOLINE RULEMAKING DOCKET.
- VIII. RULEMAKING DOCUMENTS, INCLUDING DRAFTS OF REGULATIONS AND PREAMBLES.
- IX. EPA GENERATED PRESS MATERIALS AND TALKING POINT DOCUMENTS.
- X. COPIES OF PRESS COVERAGE.
- XI. ANALYSIS OF ISSUE BY OUTSIDE PARTIES.
- XII. MATERIALS RELATED TO GATT CHALLENGE.
- XIII. OPTIONS PAPER ISSUED BY NEC, AND ALL PRIOR DRAFTS OF THIS DOCUMENT (INCLUDING DRAFT COPIES WITH COMMENTS BY EPA, USTR, AND STATE).
- XIV. CONFIDENTIAL DOCUMENT GENERATED BY DOE.
- XV. DOCUMENTS GENERATED BY OTHER FEDERAL ORGANIZATIONS.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

RECEIVED

MAY 12 1994

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ENVIRONMENTAL PROTECTION
U.S. HOUSE OF REPRESENTATIVES

THE ADMINISTRATOR

Honorable John D. Dingell
Chairman
Committee on Energy and Commerce
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Your letters of March 21 and 25, 1994 concerned EPA's Clean Air Act rules for reformulated gasoline as they apply to foreign refiners and requested information on several issues. EPA has already provided the documents requested to the Committee. The majority of the issues raised in your letters are addressed in the Notice of Proposed Rulemaking regarding individual baselines for foreign refiners (a copy of which was provided with my letter of April 21, 1994). The remaining issues you raised are addressed below.

First, you requested information on how individual baselines for reformulated gasoline from foreign refiners would impact Northeast states that adopt California motor vehicle standards. EPA is not aware at this time of any foreign refiner other than Petroleos de Venezuela, S.A. (PDVSA) that would petition for an individual baseline. Therefore, our analysis focuses on gasoline produced by PDVSA.

Based on several factors - their market share in the Northeast, the fungible nature of the gasoline distribution system, the quality of PDVSA's gasoline, and their representations to date concerning the characteristics of the gasoline they would market in 1995 and later years - EPA would expect that use of an individual baseline by PDVSA would only marginally change the average levels for sulfur, olefins, and T90 parameters in the total pool of gasoline marketed in the Northeast states, compared to what would occur under EPA's current final rule. EPA expects that under either the current final rule or the proposal for individual baselines for foreign refiners, the average level for these parameters would approximate the 1990 average for this market.

In addition, the use of individual baselines in reformulated gasoline is limited to 1995 through 1997, the first three years of the program. During that time period, EPA does not expect that a significant number of California standard vehicles will be sold in the Northeast. Of the ones that are sold, most would probably be transitional low emission vehicles, and not low emission vehicles. Based on all of the above, allowing individual baselines for foreign refiners should not affect the use of California cars in the Northeast states, as compared to EPA's current final rule.

Second, you requested a chronological list of meetings held with representatives of the Venezuelan Government since September of 1993. That information is enclosed. Finally, the documents requested in your letter have been provided to the Committee by my staff.

The issues raised by the reformulated gasoline rule are complex and challenging, and EPA is committed to working with you on this issue. If you have further questions on any of these matters, please feel free to contact myself or Mary Nichols, Assistant Administrator for Air and radiation.

Sincerely,



Carol M. Browner

Enclosure

EPA Meetings with Representatives of Venezuela and Petroleos de Venezuela, S.A. (PDVSA) Since September 1, 1993

October 27, 1993 Telephone conversation between Mike Sherman, counsel to PDVSA, and Mary Smith, EPA.

December 3, 1993 Meeting between Bill Scott and Mike Sherman, counsel for PDVSA, and Mary Nichols, Dick Wilson, Mary Smith, George Lawrence, and John Hannon of EPA.

December 10, 1993 Meeting between Venezuelan Minister of Energy and Mines; Mike Sherman, counsel for PDVSA; and Mary Nichols, Dick Wilson, Mary Smith, George Lawrence, and John Hannon of EPA.

December 21, 1993 Telephone conversation between Mike Sherman, counsel to PDVSA, and John Hannon, EPA.

December 29, 1993 Meeting between Mike Sherman, counsel to PDVSA; Luis Grisanti, Venezuelan Minister Counselor; and Mary Smith, George Lawrence and Chip Lamason of EPA.

January 18, 1994 Meeting between Mike Sherman, counsel to PDVSA, and Mary Smith and Chip Lamason of EPA.

January 20, 1994 Meeting between Mike Sherman, counsel to PDVSA, and Mary Smith and Chip Lamason of EPA.

January 25, 1994 Meeting between Mike Sherman, counsel to PDVSA, and Mary Smith and Chip Lamason of EPA.

January 27, 1994 Telephone conversation between Mike Sherman, counsel to PDVSA, and Mary Smith, EPA.

February 2, 1994 Telephone conversation between Mike Sherman, counsel to PDVSA, and Mary Smith, EPA.

February 7, 1994 Telephone conversation between Mike Sherman, counsel to PDVSA, and Mary Smith, EPA.

February 14, 1994 GATT consultation with various Venezuela government representatives. EPA attendees were Chip Lamason and John Hannon.

February 7, 1994 Telephone conversation between Mike Sherman, counsel to PDVSA, and John Hannon, EPA.

February 16, 1994 Telephone conversation between Michael Sherman, counsel to PDVSA, and John Hannon,

EPA.

February 17, 1994 Telephone conversation between Mike Sherman,
counsel to PDVSA, and Mary Smith, EPA.

April 13, 1994 Telephone conversation between Mike Sherman,
counsel to PDVSA, and Mary Smith, EPA.

April 15, 1994 Telephone conversation between Mike Sherman,
counsel to PDVSA, and Mary Smith, EPA.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 17 1994

OFFICE OF
GENERAL COUNSEL

David Finnegan, Esq.
Counsel
Committee on Energy and Commerce
House of Representatives
Room 2123 Rayburn
Washington, D.C. 20515

Dear Mr. Finnegan,

Chairman Dingell's letter of April 21, 1994 requested that EPA produce various documents concerning a prior EPA proposal, under former President Bush's administration, on the use of ethanol in reformulated gasoline, as well as documents concerning the recent EPA proposal to require the use of renewable oxygenates in reformulated gasoline. Enclosed is EPA's response to this document request.

The vast bulk of the documents are not considered confidential by EPA. However, as we discussed, EPA does consider certain of the documents to be confidential and privileged under the deliberative process, attorney client, or attorney-work product doctrine. EPA does not intend to waive the protection of these privileges by releasing these documents to the Committee. These privileged and confidential documents have been segregated from other documents.

As we have discussed, EPA has been coordinating the treatment of certain documents with the White House. Based on a communication from Lloyd N. Cutler, Special Counsel to the President, certain responsive documents are being produced that reflect deliberations within the White House, or communications between and among the White House and executive departments and agencies. These documents are being provided to the Subcommittee in a spirit of accommodation. Any applicable claims of executive privilege are not waived, and the right to assert such claims in the future are reserved. These documents are identified separately in the production.

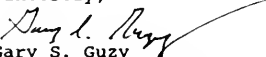
Certain other documents are not being produced at this time, as the Special Counsel to the President is continuing to examine them to determine whether they are subject to executive privilege. Mr. Cutler notes that he expects to discuss with you and the Subcommittee whether a mutually satisfactory accommodation can be reached that will take account both Congress' interest in obtaining information and the privilege accorded to deliberations within the Executive Branch.

- 2 -

With respect to EPA documents previously produced relating to foreign refiners, we at that time asserted several broad categories of privilege. We will refine this aspect of our request on Monday. Finally, a few offices are still reviewing their files to locate any responsive documents. I will promptly forward any additional documents that are obtained based on this search.

If you have any questions on this response to the Chairman's request for certain documents, please feel free to contact me at (202) 260-8040, or contact John Hannon of my staff at (202) 260-7634.

Sincerely,


Gary S. Guzy
Deputy General Counsel

enclosure



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 21 1994

OFFICE OF
GENERAL COUNSEL

David Finnegan, Esq.
Counsel
Committee on Energy and Commerce
House of Representatives
Room 2123 Rayburn
Washington, D.C. 20515

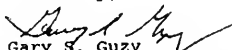
Dear Mr. Finnegan,

Chairman Dingell's letter of June 13, 1994 requested that EPA explain in writing which documents provided to the Subcommittee regarding the issue of foreign refiner baseline require confidential treatment and why. When EPA provided the documents to the Subcommittee, we identified that documents in categories I, II, IV, IX, XII, XIII and XIV should be afforded confidential treatment, as well an individual document identified in category III. EPA considers the various documents in these categories to be confidential and privileged under the deliberative process, attorney client, or attorney-work product doctrine, with the exception of category XIV and the single document in category II. These latter documents contain information claimed as confidential business information. EPA does not intend to waive the protection of any of these privileges by releasing these documents to the Committee.

In addition to the above general assertion of privilege as to these documents, EPA is concerned about potential prejudice to the position of the United States if the government of any country, including Venezuela, were to institute a challenge to the final reformulated gasoline regulations under the General Agreement on Tariffs and Trade. The documents in categories XII and XIII would appear to be more sensitive in this regard, and we request that the Committee treat these documents in a confidential fashion.

If you have any questions on these matters, please feel free to contact me at (202) 260-8040, or contact John Hannon of my staff at (202) 260-7634.

Sincerely,


Gary S. Guzy
Deputy General Counsel



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 21 1994

THE ADMINISTRATOR

Honorable John D. Dingell
Chairman, Subcommittee on Oversight
and Investigations
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Thank you for your letter of April 21, 1994 concerning two separate proposals the Environmental Protection Agency (EPA) is considering following promulgation of the reformulated gasoline rulemaking; the proposed regulations regarding treatment of Venezuelan gasoline, and the proposed requirements for the use of renewable oxygenates in reformulated gasoline.

The enclosed discussion responds to the questions raised in your letter that were directed to EPA. I understand the Department of Energy will respond separately to those questions directed to them. Your request for information in EPA files related to various ethanol issues is also being handled through a separate process.

Thank you for your interest in this matter. Please contact us if we can provide further assistance.

Sincerely,

A handwritten signature in cursive script, appearing to read "Carol M. Browner".

Carol M. Browner

Enclosures

ENCLOSURE

QUESTION 1:

At the October 29, 1993 hearing by the Subcommittee on Oversight and Investigations on implementation of the CAA, I expressed concern that the delay in promulgating regulations might cause a delay in implementation by those subject to the regulations, resulting a shortage of conventional and reformulated gasoline and higher prices. Any such shortage, whether local, regional, or national, would seriously affect the U.S. economy and general transportation needs.

The EPA and the Department of Energy (DOE) at that hearing assured me that the Administration does not expect shortages. However, the EPA and California did not expect problems when the low-sulfur diesel rule was implemented last year. Thus, I remain concerned. That concern is exacerbated by the Administration's decision to propose a change mandating a renewable oxygenate requirement and to change the February 16 rule to satisfy Venezuela. Both actions create uncertainty and raise difficult legal issues.

Please describe the actions each of your agencies have taken or plan to monitor timely compliance with the regulations and to ensure that there will be no shortages of gasoline of any kind beginning on January 1, 1995, under the regulations as finalized on February 16. To comply with these regulations, the gasoline will likely have to be delivered and stored long, before January 1. What situations could arise that might disrupt supplies of either conventional or reformulated gasoline or fuels for other uses, taking into consideration contracts for supplies, changes in contracts to accommodate ethanol changes, permits, tank capacity, transportation, lead time, blending, and other factors? Based on the latest information available to your agencies since the hearing, do you anticipate any shortages or pricing problems? To what extent will these two proposals affect compliance by January 1, 1995? What pricing issues could arise under the RFG rule, with or without these two proposals?

RESPONSE:

Most of the factors present when the diesel desulfurization program was implemented in 1993, and which resulted in some supply problems primarily in the Midwest, are not relevant to reformulated gasoline (RFG) implementation. The diesel desulfurization program did not have any lead time between the date the requirements began at the terminal level versus at the retail level. Another significant factor that hurt diesel supplies were the unprecedented floods in the midwest last fall/winter, that stopped barge shipments on rivers in the midwest and caused a major midwest pipeline to close. In

addition, the initial demand for low sulfur diesel was much larger than anticipated, which is explained in part because, prior to last Fall, there had been no diesel fuel produced separately for motor vehicle use only.

EPA does not anticipate similar supply problems for RFG for several reasons. First, the supplies necessary for the RFG program are more identifiable. Second, the RFG program is focused primarily in the Northeast U.S., which makes the supply issue more manageable by industry. Third, the RFG requirements apply at terminals that serve RFG covered areas beginning on December 1, 1994, and at the retail outlet beginning on January 1, 1995. This one-month lead time should allow for an orderly period for retailers to turn over their storage tanks in advance of the January 1, 1995 deadline. A similar one month lead time has been successfully used under the gasoline volatility control program each Spring.

EPA expects the RFG implementation to resemble implementation of the volatility and winter time oxygenated fuels program, instead of implementation of the diesel desulfurization program. Both the volatility and oxy fuels programs were initiated with little impact on gasoline supplies.

In terms of RFG production capacity, the Department of Energy has stated that there is sufficient U.S. refining capacity to produce adequate supplies of RFG, particularly in light of the new gasoline volume that is created by the oxygen requirement for RFG.

Since the RFG final rules have been promulgated, EPA has taken a number of steps to facilitate its smooth implementation and to assure no conflict with the continued distribution of conventional gasoline to non-RFG areas. We have held three workshops to discuss implementation issues with fuel providers and another is scheduled for July. Also at the beginning of July, EPA will be releasing an extensive guidance document with answers to hundreds of implementation and enforcement questions submitted, at the Agency's request, by refiners, terminal and pipeline operators, gasoline marketers and others. Further, EPA and the Department of Energy have begun an analysis of RFG supplies over the next year that will take into account RFG refining and import volume projections, pipeline and terminal capacities, and RFG demand. This analysis will particularly focus on the Northeast U.S. market, which will be the largest RFG market. In addition, EPA intends to establish a task force comprised of members from the petroleum industry, state and consumer groups, and other Federal agencies to further evaluate the supply issue and any other potential implementation issues.

EPA has stated the costs of producing RFG will be about 3 to 5 cents per gallon. If supplies of RFG are sufficient, which we believe they will be, the costs to consumers of RFG should be approximately at this level.

If the foreign refinery baseline proposal were adopted as a final rule, the volumes of imported RFG should increase. As a result, adoption of this proposal should, directionally, result in greater supplies and lower prices for RFG.

With respect to the renewable oxygenate proposal, comments received by EPA from the ethanol industry state that there are adequate supplies of ethanol available for meeting the proposed renewable oxygenate requirements.

Nevertheless, concerns have been expressed by other commenters with regard to the adequacy of renewable oxygenate supply, storage, and blending capacity for compliance with the December 1, 1994 startup of the program. To allow the market to work as efficiently as possible and avoid market disruptions EPA has built considerable flexibility into the program by allowing year-round averaging and trading. As a result, refiners need not comply on December 1st as long as they make up any shortfall later in the year and they need not blend renewable oxygenates at all if they can purchase credits from another refiner. In addition, EPA is currently evaluating the need for a phase-in for the program, as suggested by some commenters, which would further alleviate concerns over any market disruptions that could result from a shortfall in renewable oxygenate availability.

QUESTION 2:

EPA's staff tells us that Venezuela was not a party to the regulatory negotiation for this rule. Did anyone represent foreign interests, including Venezuela's interests, such as the seller of Venezuelan gasoline in the U.S.? If not, why not? To what extent were the proponents of the ethanol proposal participants in the regulatory negotiation (Reg. Neg.) and signers to the "Agreement in Principle" of August 1991? Please explain to what extent, if at all, this proposal differs with that agreement.

RESPONSE:

Petroleos de Venezuela, S.A. (PDVSA) was not a party to the RFG regulatory negotiation. Although no party specifically represented foreign interests in the Reg Neg, many domestic refiners are also importers and operate foreign refineries. In addition, CITGO, a US oil company that was represented in the regulatory negotiation through its membership in industry associations, is wholly owned by PDVSA.

The Renewable Fuels Association and the National Corn Growers Association, who are proponents of the use of ethanol or ethanol based ethers, participated in and were signatories to the RFG regulatory negotiation.

The issue of foreign refinery baselines was not discussed during the regulatory negotiation, and is not addressed in the regulatory negotiation agreement. Similarly, the issue of whether or not to require the use of renewable oxygenates in reformulated gasoline was not discussed during the regulatory negotiation and is not addressed in the "Agreement in Principle."

QUESTION 3:

With regard to the new ethanol proposal, the EPA preamble to the new regulations discusses a February 26, 1992, ethanol proposal made by the EPA pursuant to former President Bush's announcement that he wanted ethanol to effectively compete in the RFG program. As a supporter of the use of ethanol, I share that view. However, the preamble indicates that the EPA had a number of "concerns with respect to its legality, energy benefits, and environmental neutrality" and that since then the "concerns have been enhanced." The preamble then concludes:

While EPA maintains that the program would have provided an economic incentive for the use of renewable oxygenates in reformulated gasoline up to a 30% market share, EPA acknowledges that the proposal would have intruded into the efficient operation of the marketplace, impacting the cost of the reformulated gasoline program. As a result, after taking into account the cost, non-air quality and environmental impacts, and energy impacts, EPA has found itself with no choice but to back away from the renewable oxygenate provisions of the February 26, 1993 proposal.

Representatives Sherrod Brown and Jack Fields, in a February 22 letter to the EPA, state that the EPA "is on record as saying it is without legal authority to issue an ethanol mandate." They refer to EPA's final Regulatory Impact Analysis in support of this statement.

Did the DOE have concerns similar to those mentioned in the preamble by the EPA? Please provide all internal and inter-agency letters, memoranda, and other documents in DOE's and EPA's files about those ethanol related concerns.

Please explain how this new proposal overcomes each of the above concerns. Please provide the statutory authority for such a mandate, taking into consideration the policy of section 250(b) of the CAA.

RESPONSE:

EPA believes that the renewable oxygenate program is a reasonable exercise of the discretionary authority granted the agency under section 211(k)(1) of the Clean Air Act. EPA interprets the first sentence of section 211(k)(1) as broad authority to adopt reasonable requirements for reformulated gasoline, unless otherwise prohibited by the Clean Air Act or other statutory provision. EPA interprets the second sentence of section 211(k)(1) as authorizing EPA to adopt regulations for the reformulated gasoline program that result in the greatest emission reductions achievable, and at the same time tend to optimize the resulting impacts on cost, energy requirements, and other health and environmental impacts. In effect, EPA has full authority to adopt emission reduction standards and other requirements that achieve this result.

Section 250(b) of the Clean Air Act addresses EPA's authority to regulate marketing or pricing practices, policies or strategies for fuels under the Clean Fuel Vehicle provisions of Title II, Part C of the CAA. It does not apply to regulations issued under section 211 of the CAA.

As discussed below in the response to question 7, EPA believes that the proposed renewable oxygenate program would achieve these objectives while avoiding the various concerns noted regarding the 1992 proposal.

EPA rejected the "Bush" proposal which would have required RFG non-ethanol blends to obtain greater emissions reductions to offset the emissions increases from ethanol blends. This would have the same effect as giving ethanol blends a one psi waiver for 30% of RFG, and for this reason, was rejected as not being environmentally neutral. The current renewable oxygenate proposal is, therefore, clearly different from the Bush proposal.

QUESTION 4:

Please explain the origin of the new ethanol proposal and the decision to propose it in December. Was this decision made by the EPA or others? Please provide all internal and interagency memoranda and other documents in EPA's files concerning the making of the decision to propose a new ethanol rule.

RESPONSE:

In response to EPA's April 1992 publication of the Supplemental Notice of Proposed Rulemaking (SNPRM) (57 FR 13416, April 16, 1992) for reformulated gasoline, members of the ethanol industry submitted comments to EPA which expressed their concern that the proposed rulemaking would effectively exclude ethanol from the reformulated gasoline market. In an attempt to address the role of ethanol, the Agency proposed a renewable oxygenate program (ROP) (58 FR 11722, February 26, 1993) to provide an incentive for the use of ethanol and other renewable oxygenates in reformulated gasoline, consistent with former President George Bush's announced plan to allow ethanol to compete effectively in RFG. The objective of the ROP was to stimulate a summer market for renewable oxygenates in the reformulated gasoline program while maintaining the overall level of emissions control proposed in April 1992.

The comments received regarding the ROP were almost uniformly negative. Commenters ranging from ethanol interests to the oil industry to state regulators argued that the ROP was unworkable. In addition, all commenters with the exception of the ethanol and agricultural interests argued that the ROP was legally flawed and would have resulted in significant adverse air quality impacts. EPA also had a number of concerns with respect to the ROP proposal. The proposal created an incentive for the use of renewables but in no way assured their use. In addition, despite the constraints on the Reid vapor pressure (RVP, a measure of gasoline's volatility) of the gasoline refiners produced, EPA estimated that other volatility related effects of blending ethanol with gasoline could sacrifice as much as 40 to 50 percent of the minimum VOC control required under section 211(k)(3) for reformulated gasoline during the summer. Thus, EPA's analysis indicated that the proposal would not maintain the environmental benefits of reformulated gasoline.

The final rule for reformulated gasoline signed by Administrator Carol Browner in December 1993 did not include additional provisions to promote the use of renewable oxygenates. However, in a separate action EPA proposed a new set of renewable oxygenate requirements for reformulated gasoline, designed to provide an incentive for the use of renewable oxygenates and avoid the problems raised by the prior proposal. The Administrator, upon the recommendation of the Assistant Administrator for Air and Radiation, determined to seek public comment on whether the long-standing goal of promoting renewable fuels could be accommodated with the goals of environmental protection in a manner consistent with EPA's underlying legal authority. EPA believed it had identified the best proposal to meet those goals, and EPA made this decision after consulting within the current Administration, among staff and at the Cabinet level, including with the Departments of Energy and Agriculture.

QUESTION 5:

The enclosed March 7, 1994 article in New Fuels Report alleges that the DOE is considering whether to release a new "controversial" analysis. Please provide a copy of all the versions of the analysis to the Subcommittee and include them in the rulemaking record. What is the status of the analysis and is the DOE planning to withhold or delay its release?

RESPONSE:

The DOE analysis, "Energy Requirements and CO2-Equivalent Emissions of RFG", is a draft report sent out for peer review and was provided to us by DOE for inclusion in the rulemaking docket in early April of 1994. We defer to DOE to provide you with a response to your questions regarding its current status. EPA has docketed in the rulemaking record, the draft report.

QUESTION 6:

Please explain the effect of the ethanol mandate on energy use and greenhouse gas emissions from the gathering of new material through the consumption of the final fuel. Is the effect significant and of concern to the DOE, or the EPA, or both?

RESPONSE:

Based on the draft DOE report, we would not expect a net change in greenhouse gas emissions (within the bounds of scientific uncertainty) if corn-based ethanol produced from existing ethanol plants were used to meet the 30% requirement. Uncertainties in the state of scientific knowledge regarding the emissions and global warming potential of different greenhouse gases make such comparisons difficult. However, the renewable oxygenate program would reduce the fossil fuel energy consumed by the RFG program by approximately 0.7% in the short term. In the long term the renewable oxygenate program is expected to stimulate the development of new more efficient renewable oxygenate production processes which would lead to even greater reductions in fossil energy consumption and greenhouse gas emissions.

Our understanding is that the DOE study included the energy needed to plant, fertilize, harvest, transport, and process corn feedstocks, as well as the energy needed to transport and blend ethanol into gasoline.

QUESTION 7:

Does the ethanol proposal achieve the primary regulatory objective of the RFG and does it include specific performance criteria to qualify oxygenates as renewable? Does it violate the principle of fuel neutrality under the CAA and the Energy Policy Act of 1992? What are the benefits of the proposal?

RESPONSE:

The primary regulatory objective of the RFG program is to obtain significant reductions of harmful motor vehicle emissions in areas with air pollution problems. The renewable oxygenate proposal is designed to obtain various other benefits, and at the same time maintain and not interfere with obtaining these environmental benefits. The proposal would not change the VOC, NOx, or toxics emission performance standards set forth in EPA's final rule for reformulated gasoline, and under certain circumstances could lead to greater VOC reduction.

The renewable oxygenate proposal would require that refiners which claim credit for the use of renewable oxygenates demonstrate the renewable nature of oxygenates through documents which certify that the oxygenate feedstock is renewable. In the proposal, EPA also asked for comment on whether or not to set performance standards for renewable oxygenates. EPA is currently considering, however, whether energy and greenhouse gas performance standards are possible at the present time due to the state of the science in quantifying global warming impacts, and the burden associated with tracking the energy and greenhouse gas emissions through every stage in the production of renewable oxygenates.

The intent of the proposal would be to encourage the use of renewable sources of transportation energy. EPA would not be mandating the use of a specific oxygenate, just requiring that a minimum level of the required oxygen content be derived from renewable resources. Refiners would have the option to choose among several renewable oxygenates, such as ethanol, ETBE, and oxygenates such as MTBE and TAME based on renewable methanol, to comply with the requirements of the proposal. Given the range of potential renewable oxygenates, and the lack of any renewable oxygenate requirement for the large majority of RFG, EPA believes the proposal is a reasonable balance of various policies, and does not violate either the spirit or the intent of the CAA and Energy Policy Act of 1992.

As mentioned above, EPA expects the primary benefit of the renewable oxygenate proposal would be fossil energy benefits. In addition to the fossil energy benefits EPA believes that the program will stimulate the development of new more efficient renewable oxygenate production processes which will provide reductions in greenhouse gas emissions in the future. Next-generation ethanol plants are projected to be more energy-efficient and hence would offer the potential for reductions in greenhouse gas emissions as ethanol is substituted for MTBE produced from fossil fuels. Future ethanol plants may also be able to process cellulosic materials, which would further enhance the greenhouse gas benefits of corn-based ethanol. USDA expects improvements in fertilizer utilization to reduce emissions of nitrogen dioxide, another greenhouse gas.

QUESTION 8:

If the ethanol proposal is not adopted by the EPA, will ethanol be able to compete effectively in the RFG program? If not, why not?

RESPONSE:

Past and present Administrations and the Congress have long promoted the use of renewable fuels through a variety of mechanisms, including extensive research at USDA and DOE, the 54 cents per gallon tax credit for renewable fuels, the RVP waiver for conventional gasoline provided in the Clean Air Act, and the oxygenate requirements for winter oxygenated fuel and reformulated gasoline. EPA recognizes that some of the provisions of the RFG program have caused new investments in renewable fuels to be uncertain. EPA's renewable oxygenate proposal represents an effort by the Agency to support and obtain the benefits from the long-term goal of increased renewable fuels use and at the same time reduce emissions of ozone-forming and toxic air pollutants. The proposal would affect less than one percent of total U.S. gasoline volume but could affect as much as 60% of total U.S. renewable fuels volume.

Without the renewable oxygenate program, EPA, DOE, USDA, and others have expected ethanol to be able to compete in at least some reformulated gasoline markets. In addition, ETBE, an ether produced from ethanol, offers a number of advantages in meeting the long term, Phase II reformulated gasoline requirements. However, EPA recognizes that ethanol's ability to compete in the RFG market may be hampered given the effect of splash blending ethanol on gasoline volatility.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 23 1994

Honorable John D. Dingell
Chairman, Subcommittee on
Oversight and Investigations
Committee on Energy and Commerce
House of Representatives
Washington, DC 20515

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THE ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY

Dear Mr. Chairman:

Thank you for your correspondence of January 13, 1994, regarding contractor involvement in the development of the Acid Rain Nitrogen Oxides (NO_x) Reduction Rule, and the Environmental Protection Agency's (EPA) procedures for answering Freedom of Information Act (FOIA) requests.

As you are aware, EPA uses contractors for their technical expertise in areas where EPA's expertise is not available, as was the case in this instance. The contractors in question performed technical studies and analyses for EPA without involvement in the policymaking process. All information relied on by EPA in finalizing the Acid Rain NO_x rule is included in the rulemaking docket (A-92-15).

Although you are correct in stating that contractors are not a part of EPA, the courts have recognized that materials generated by contractors may be withheld if the requirements of Exemption 5 of FOIA are met. In the instant case, the FOIA request was received by the Agency before the contractor reports had been reviewed for accuracy by the Office of Air and Radiation. If the reports had been found to be inaccurate, their release could have created public confusion. The prevention of such confusion has been consistently held to be a basis for exempting information from release pursuant to the deliberative process privilege of Exemption 5. Only when the process of reviewing these records was complete and the accuracy of the reports had been verified by the Office of Air and Radiation could the Agency determine the releasability of the records under the FOIA.

In the future, EPA will continue to make non-exempt information available to the public as quickly as possible and encourage discretionary disclosure by program offices. If materials responsive to a request include unvalidated data, we will communicate this fact to the requester, which may obviate the need for an appeal prior to the office's validation of the

data. In the present case the program office's review of the contractor information was not completed until after the FOIA appeal was filed. Had the accuracy of the reports been verified by the time of receipt of the request, the reports would have been released at that time.

Thank you again for your interest in this matter. We welcome any further comments you or your constituents may have on this or other issues.

Sincerely,

Carol M. Browner

THE WHITE HOUSE
WASHINGTON

June 17, 1994

Honorable Jean C. Nelson
General Counsel
Environmental Protection Agency
Washington, D.C.

Dear Ms. Nelson:

On April 24, 1994, Administrator Browner received a letter from Chairman John Dingell requesting that the Environmental Protection Agency produce to the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce certain documents and information relating to the implementation of the reformulated gasoline (RFG) requirements of the Clean Air Act.

Your office has advised us that certain documents responsive to the Subcommittee's request reflect deliberations within the White House, or communications between and among the White House and executive departments and agencies. Because such documents are subject to a potential claim of executive privilege, you have, pursuant to our request, delivered copies of these documents to our office for review.

Upon review, we have determined that it is appropriate to provide immediately to the Subcommittee the following documents:

- (1) letter to the President, dated November 22, 1993, from various members of Congress;
- (2) letter to Bruce Lindsey, dated November 24, 1993, from Representative Richard J. Durbin;
- (3) Weekly Report for December 9, 1993, from Carol M. Browner to Mack McLarty;
- (4) Report for December 16, 1993 to January 7, 1993, from Carol M. Browner to Mack McLarty;
- (5) information on reformulated gasoline transmitted by facsimile from Mike Vandenberg to Carol Browner c/o Beth Pritchard-Alpert;
- (6) information on reformulated gasoline transmitted by facsimile from office of Carol Browner to Carol Browner c/o Beth Pritchard-Alpert;

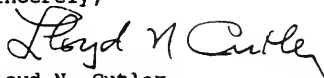
- (7) memorandum from Pete Rouse to Bill Burton, dated December 9, 1993, transmitted by facsimile from Bill Burton to Carol Browner; and
- (8) memorandum from Carol Browner to the Vice President on Reformulated Gasoline and Ethanol, delivered by facsimile on December 15, 1994.

These documents are being provided to the Subcommittee in a spirit of accommodation. Please advise the Subcommittee that in providing these documents, we do not waive any applicable claims of executive privilege and reserve the right to assert such claims in the future. We are continuing to examine the remainder of the documents you have provided to us to determine whether they are subject to executive privilege.

With respect to these remaining documents, we plan to discuss with you and the Subcommittee whether a mutually satisfactory accommodation can be reached that will take account both of Congress' interest in obtaining information and the privilege accorded to deliberations within the Executive Branch. In these circumstances, "each branch should take cognizance of an implicit constitutional mandate to seek optimal accommodation through a realistic evaluation of the needs of the conflicting branches in the particular fact situation." United States v. American Tel. & Tel. Co., 567 F.2d 121, 130 (D.C. Cir. 1977).

Please contact me or Stephen Neuwirth, Associate Counsel to the President, to discuss any questions relating to this matter.

Sincerely,



Lloyd N. Cutler
Special Counsel to the President

1. USDA Draft analysis of commingling effects in reformulated gasoline, faxed by USDA on 11/16/93 to David Doniger, Office of Environmental Policy.
2. USDA analysis of reformulated gasoline policy options, delivered to White House, copy faxed by USDA on 11/17/93 to Charles Gray, EPA.
3. Draft legal analysis of ethanol-blend incentives delivered by EPA General Counsel's Office to White House during Fall 1992.
4. White House drafts of press release/fact sheets on promotion of ethanol to help achieve the environmental goals of the Clean Air Act, 1992.
5. 12/3/93 Memo from Hannon (EPA) to Eckert (EPA) describing White House meeting on reformulated gasoline/renewable oxygenates.
6. 12/9/93 Memo from Eckert (EPA) to Nelson (EPA) describing White House meeting on reformulated gasoline/renewable oxygenates.
7. 11/29/93 Briefing Book for Jean Nelson on ethanol issue and the reformulated gasoline program. (For use in White House meeting)
8. 11/23/93 draft letter from Jean Nelson and Mary Nichols on reformulated gasoline. (For delivery to White House)
9. 11/22/93 draft memo from John Hannon on EPA Authority to Mandate the Use of Domestic Renewable Oxygenates in Reformulated Gasoline. (For delivery to White House)
10. 12/1/93 draft Justice Department memo on proposals to enhance the role of ETBE in EPA's RFG program; faxed to Jean Nelson on 12/2/93.
11. 12/9/93 draft CEA memo on ethanol and reformulated gasoline regulation.
12. 11/3/93 OSTP memo on pending decision on ethanol and Clean Air Act.
13. 10/4/93 memo from Katie McGinty and Sally Katzen on briefing on EPA RFG rule.
14. 12/9/93 briefing document for Carol Browner on RFG program. (For use in White House meeting)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 WASHINGTON, D.C. 20460

RECEIVED
 JUN 16 1994

JUN 16 1994

OFFICE OF
 AIR AND RADIATION

Honorable John D. Dingell
 Chairman
 Committee on Energy and Commerce
 U.S. House of Representatives
 Washington, D.C. 20515

Dear Mr. Chairman:

I am responding to your concerns regarding the allocation of FY 1994 resources to two activities to which we in the Environmental Protection Agency attach the highest importance: implementation of the 1990 Clean Air Act Amendments and implementation of the President's Climate Change Action Plan.

Congress did not give EPA all the resources we initially requested for FY 1994. Within these constraints, in developing our FY 1994 operating plan, we sought to meet both the Administration's highest environmental priorities (including but not limited to the President's climate initiative) and our obligations under the Clean Air Act and other laws.

I believe we can effectively meet both objectives. Our resource constraints will not prevent us from meeting any near-term court-ordered deadlines. For the long-term, we are developing more streamlined and efficient ways of meeting the requirements of the Clean Air Act.

As an example, we are developing ways to involve states, industry, and environmentalists in setting Maximum Achievable Control Technology (MACT) standards. Our new standards development procedures for MACT will enable us to identify the best available data and resolve critical issues earlier in the standard-setting process and to reduce the resources required for each standard.

I would note also that the final FY 1994 operating plan reprogrammings that we sent to Congress for approval reduced funding levels for Clean Air Act activities by less than the amounts shown in your letter. In response to your comment regarding resource assistance to states, although some Agency technical support to states is reduced, we did maintain state grants at the FY 1993 level, about \$176 million.



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I would like to emphasize that the resources that we devote to implementing the Climate Change Action Plan bring direct clean air benefits. Our voluntary energy efficiency programs reduce emissions of sulfur dioxide, nitrogen oxides, and air toxics (e.g., heavy metals, such as beryllium, cadmium, copper, chromium, manganese, mercury, nickel and silver), as well as greenhouse gases. These reductions will help states meet their Clean Air Act implementation plan obligations as well as their toxic air pollution control objectives. Our energy efficiency programs also reduce other forms of pollution associated with electricity generation: boiler ash, scrubber waste, acidic drainage, coal mining waste, radioactive waste, and natural gas leakage.

In addition, Climate Change Action Plan activities directly fulfill requirements of the Clean Air Act:

- ▶ Section 612 requires that chlorofluorocarbon substitutes not adversely effect human health or the environment if alternatives that reduce overall risk are available. We will use the section 612 authority to narrow the scope of allowable uses for hydrofluorocarbons (HFCs) with high global warming potential. We are working with chemical manufacturers to limit by-product emissions of HFCs by 50 percent.
- ▶ Section 103(g) requires EPA to conduct a research and technology program to develop, evaluate, and demonstrate non-regulatory strategies and technologies for air pollution prevention. Our key voluntary programs (e.g., Green Lights, Energy Star Transformers, and Energy Star Building programs) help meet this requirement and will serve as prototypes for programs to meet other Act requirements.
- ▶ EPA proposed rules in May 1991 to meet Clean Air Act requirements to limit emissions of volatile organic compounds from landfills. Consistent with the Climate Change Action Plan, the final rules are expected to increase the amount of valuable methane that will be recovered, reducing overall costs where energy recovery is implemented and significantly reducing emissions. Methane is a greenhouse gas 22 times more potent than carbon dioxide. EPA also will assist other landfills to undertake additional, profitable steps to capture and use methane, beyond those they would be motivated to take by the rule itself.

Our FY 1994 budget for the President's Climate Change Action Plan, as submitted to the Congress, totals about \$27 million. I have enclosed the contracts information that you requested.

In response to your questions about EPA's Environmental Technology Initiative (ETI), I am pleased to provide copies of our Technology Innovation Strategy and FY 1994 program plan, prepared to focus the Agency's technology innovation policies and provide a spending plan for EPA-sponsored projects. President Clinton outlined a new technology initiative in his February 17, 1993 State of the Union speech. We developed the ETI using the same statutory authorities (the Clean Water Act, the Safe Drinking Water Act, the Clean Air Act, the Pollution Prevention Act, etc.) that govern EPA's basic technology research and development and technical assistance programs.

We are coordinating ETI in several ways with other federal agencies, including the Department of Energy and the Department of Commerce. More than 30 of the 74 projects described in the FY 1994 program plan have other federal agencies as partners. Other federal agencies also have representatives serving on committees of our Innovative Technology Council, formed to plan FY 1995 projects. In addition, as co-chair of the Environmental Technology Working Group of the Trade Promotion Coordinating Committee (TPCC), EPA is helping implement the Administration's Environmental Technology Export Strategy with the other TPCC members such as the Department of Commerce, the Department of Energy, the Agency for International Development, the Small Business Administration, the Export-Import Bank, and the Overseas Private Investment Corporation.

With regard to the legislation now pending in the Congress, EPA and the Administration have been working closely with the Committees sponsoring S. 978 and H.R. 3870, not because the Agency lacks legislative authority in this area, but because the proposed bills would greatly clarify EPA's roles in: a) developing public-private technology development and commercialization partnerships; b) extending technical assistance; and, c) verifying or certifying technology performance. Because EPA and state environmental control policies help drive the demand for environmental technologies and heavily influence the rate at which they can be developed, I feel that it is essential to clearly define our roles in these areas. EPA and other federal agencies and project partners are developing a clean car with the Agency's role to provide technical assistance for meeting emissions requirements clearly defined. Our role in supporting the development and commercialization of cleaner technologies may not be as well defined.

Finally, EPA's FY 1995 budget request includes \$6.6 million for the clean car initiative, designed to demonstrate the pollution prevention potential of automotive propulsion systems with low carbon emissions, while preserving current vehicle performance, utility, and safety. Of the total funding

requested, \$4.1 million is new funding. The clean car initiative is described on page 2-57 of EPA's FY 1995 Justification of Appropriation Estimates for Committee on Appropriations.

If I can be of further assistance, please do not hesitate to call.

Sincerely yours,



Mary D. Nichols
Assistant Administrator
for Air and Radiation

Enclosures - 73 DBF

GLOBAL CHANGE DIVISION
OFFICE OF ATMOSPHERIC PROTECTION

CURRENT CONTRACTS

1. ICF CONTRACT 68D20178

Duration: three years (10/1/92 - 9/30/95)

	<u>Hours</u>	<u>Cost + Fee</u>
<u>Base Year</u> (10/1/92- 9/30/93)	130,910	\$ 9,043,572
<u>Option I**</u> (10/1/93- 9/30/94)	163,637	\$11,671,947
<u>Option II</u> (10/1/94- 9/30/95)	196,364	\$14,495,428

**Current contract period

2. ENVIRO-MANAGEMENT & RESEARCH INC. 68D20136

Duration: three years (8/1/92 - 9/30/93)

	<u>Hours</u>	<u>Cost + Fee</u>
<u>Base Year</u> (8/1/92- 9/30/93)	9,090 +4,500*	\$ 550,491 +310,580*
<u>Option I**</u> (10/1/93- 9/30/94)	15,950	\$ 985,540
<u>Option II</u> (10/1/94- 9/30/95)	18,181	\$1,172,041

* Option available for increased quantity

**Current contract period

GLOBAL CHANGE DIVISION

CURRENT CONTRACTS

3. SCIENTIFIC & COMMERCIAL SYSTEMS CORP. 68D30087

Duration: three years (10/1/93 - 9/30/96)

	<u>Hours</u>	<u>Cost + Fee</u>
<u>Base Year**</u> (9/28/93- 9/30/94)	10,200 +5,000*	\$ 565,529 +277,220*
<u>Option I</u> (10/1/94- 9/30/95)	10,200 +5,000*	\$ 589,584 +289,010*
<u>Option II</u> (10/1/95- 9/30/96)	10,200 +5,000*	\$ 614,842 +301,400*

* Option available for increased quantity

**Current contract period

4. ENVIRO-MANAGEMENT & RESEARCH INC. 68D20147

Duration: 9/23/92 - 9/30/95

	<u>Hours</u>	<u>Cost + Fee</u>
<u>Base Year</u> (9/23/92- 9/30/93)	13,590	\$ 707,094
<u>Option I**</u> (10/1/93- 9/30/94)	18,181	\$ 989,640
<u>Option I</u> (10/1/94- 9/30/95)	21,818	\$1,280,188

**Current contract period

ATTACHMENT A
STATEMENT OF WORK

Energy Productivity and Pollution Prevention

This scope of work is organized into the following sections

- I). Background and purpose- This section provides a brief description of the scientific, policy and international background of the issue and the specific nature of the work required.
- II). Statement of Work/Specifications- This section provides a description of the work areas covered under this scope of work. There are 8 specific work areas. the areas for which the contractor shall be responsible are as follows:
 1. Technological Assessment and Engineering Analysis.
 2. Regulatory Assessment and Analyses.
 3. Energy Markets and Modeling.
 4. Communications and Marketing.
 5. Database Design and Implementation, Management Models, Computer and Geographic Information Systems.
 6. Program Development and Implementation
 7. Literature Search and Retrieval Services.
 8. Greenhouse Gases.

I). BACKGROUND AND PURPOSE

A variety of trace gas emissions from various man made sources and natural sources are changing the composition of the global atmosphere. These gases threaten to deplete the ozone layer in the stratosphere, change global climate and alter the chemical balance of the lower atmosphere. It will be necessary to evaluate and analyze projections, measurements, databases for nitrous oxide, methane, carbon dioxide, carbon monoxide, non-ethane hydrocarbons and other gases.

In order to reduce the damage from global atmospheric change to the world's environments, economies and health, the

68D20178

Environmental Protection Agency's Global Change Division initiates programs to support development and mass market implementation of technologies that cost-effectively reduce combustion-related pollution through improved productivity and use of less polluting and/or renewable resources.

The Global Change Division analyzes the pollution prevention opportunities of various technologies and develops partnerships to encourage growth of technologies with significant potential. Market enhancement mechanisms are identified and explored to increase investment in environmentally favorable technologies.

A variety of options exist to define and limit the changes in the atmosphere due to increases in atmospheric concentrations of gases. A major part of the work described under this scope of work deals with identifying and analyzing conservation and demand side management technologies in the residential, commercial, industrial, transportation and utility sectors, technologies using renewable resources of energy, pollution expertise, utility regulation and ratebase analysis, and analysis of greenhouse gas emissions and reduction options. The analysis is defined in ways to identify market enhancement options to ensure appropriate technologies are used on a large scale.

II) SCOPE OF WORK

The contractor shall furnish the necessary personnel, material, equipment, services and facilities (except as otherwise specified) to perform the Statement of Work/Specifications as follows:

The contractor shall perform work under this contract only as directed in work assignments issued by the Contracting Officer.

SPECIFIC WORK AREAS:

EPA requires technical and analytical support in the following areas and will issue work assignments in accordance with Section B of this contract.

1. Technological Assessment and Engineering Analysis

Analytic and technical support may be required in areas related to energy and environmental technologies. The areas of concern are listed below; however, this list is not meant to be all inclusive. Technological assessment, engineering analysis, evaluation and analysis in support of EPA programs and in support of standard setting are required.

1A. Conservation and Demand Side Management Technologies

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1A.1 Residential Sector Technologies**1A.1.1 Appliances**

Analysis of sales, stock, vintage and distribution data for all appliances and all relevant fuel types particularly refrigerators/freezers, heat pumps and water heaters.

a. Refrigerators/Freezers

Determination of various designs to incorporate energy efficiency improvements and the use of alternative refrigerants. Evaluation of technological possibilities focusing annual energy consumption.

b. Heat Pumps

Evaluation of heat pump technologies especially variable speed, air-to-air and geothermal types. Focus on integrated end-uses for heat pumps (i.e. water heating and close drying in addition to space conditioning).

c. Water Heaters

Evaluation of water heater technologies focusing both on the energy and water saving potential from improvements.

d. Heating and Cooling

Evaluation of heating and cooling technologies and HVAC systems. Such technologies would include boilers, furnaces and air conditioners. Analysis of district heating and cooling possibilities is also of interest.

e. Other

Evaluation of other energy consuming appliance technologies in the residential sector that would include but not be limited to clothes washers, clothes dryers, cooking ranges and residential lighting technologies.

1A.1.2 Building Envelopes

Analysis and evaluation of overall building design in terms of energy efficiency opportunities. Such examinations would include heat loss analyses, insulation, glazing, HVAC and lighting control technologies. Determination of indoor air quality ramifications and use of non-CFC products would be important.

1A.2 Commercial Sector Technologies

68D20178

1A.2.1 Equipment

- a. **Lighting**
Analysis of energy efficient lighting equipment including fixtures, ballasts, bulbs and lighting systems. Technological support for ongoing Green Lights program.
- b. **Chillers**
Analysis of existing electric and absorption systems and refrigerants, service and maintenance practices, emission patterns redesign, optimization for adaption to alternative refrigerants, technological possibilities for energy efficiency.
- c. **Heat Pumps**
Evaluation of heat pump technologies especially variable speed, air-to-air and geothermal types. Focus on integrated end-uses for heat pumps (i.e. water heating and clothes drying in addition to space conditioning).
- d. **Water Heating**
Evaluation of water heater technologies for the commercial sector focusing both on the energy and water saving potential from improvements.
- e. **Heating and Cooling**
Evaluation of heating and cooling technologies and HVAC systems for commercial applications. Such technologies would include boilers, furnaces, packaged heating units, baseboard heaters and packaged air conditioner units. Analysis of district heating and cooling possibilities is also of interest.
- f. **Energy Management Systems**
Determination of appropriate energy management controls, operations and systems that would allow commercial users to use energy more productively.

1A.2.2. Building Envelopes

Analysis and evaluation of overall building design in terms of energy efficiency opportunities. Such examinations would include heat loss analyses, insulation, glazing, HVAC and lighting control technologies. Determination of indoor air quality ramifications and use of non-CFC products would be important.

68D20178

1A.3 Industrial Sector Technologies**1A.3.1 Equipment**

- a. **Air Pollution Control Equipment**
Analysis and evaluation of the control of industrial processes that emit long lived compounds from other than combustion processes.
- b. **Motors**
Technical evaluation and assessments of energy savings technologies and controls for industrial motors. Attention should be paid as to how motors relate to the industrial process as a whole and the potential costs of installation delays.
- c. **Process Related Technologies**
Determination and evaluation of technologies specific to process industries that would result in energy savings.
- d. **Waste Heat Capture/Cogeneration**
Evaluation and analysis of technologies that allow industries to reclaim their waste heat and/or cogenerate electricity and steam.
- e. **Lighting**
Technical analysis and evaluation of energy efficient lighting technologies applicable to industrial facilities.
- f. **Energy Management Systems**
Determination of appropriate energy management controls, operations and systems that would allow industrial users to use energy more productively.

1A.3.2 Building Envelopes

Analysis and evaluation of overall building design in terms of energy efficiency opportunities. Such examinations would include heat loss analyses, insulation, glazing, HVAC and lighting control technologies. Determination of indoor air quality ramifications and use of non-CFC products would be important.

1A.4 Transportation Sector Technologies**1A.4.1 Mechanical Design Technologies**

Evaluation of power train technologies, aerodynamic drag, ceramic engines and other mechanical design features for vehicles.

68D20178

1A.4.2 Alternative Fuels

Analysis and evaluation of alternative fuels and automotive power train designs including methanol, ethanol, hydrogen, natural gas and external combustion engines. Analysis of resource availability and markets and emissions contributions of various fuels important.

1A.4.3 Electric Vehicles

Analysis and evaluation of electric vehicle design, battery technologies and required infrastructure including energy and demand growth expectations (load factors and potential valley filling) for utility systems.

1A.5 Utility Sector Technologies**1A.5.1 Power Generation Technologies**

Analysis of power generation technologies and operating characteristics focusing on fuel use, efficiencies and emissions. Technological assessment for ongoing developments in power engineering. Interest in all types of plants, fuels and co-firing combinations including fossil steam plants, high efficiency gas turbines, IGCC's and fuel cells.

1A.5.2 Transmission and Distribution

Analysis and evaluation of technologies that transmit and distribute power over the nation's power grid. Technical evaluation would include a look at transformers and energy storage technologies as well as the environmental and human health ramifications of the transmission and distribution grid including line losses and EMF radiation.

1A.5.3 Air Pollution Control Equipment

Analysis and evaluation of the control of utility power plant emissions.

1A.5.4 Metering and Submetering Equipment

Determination and evaluation of technologies used for metering and submetering applications especially in residential and commercial multi-unit buildings.

1A.6 Other Technologies

Evaluation and assessment of other technologies used by the electric power industry in providing electric energy to end-users.

1B. Technologies Using Renewable Sources of Energy

68D20178

1B.1 Renewable Supply Side Technologies**1B.1.1 Biomass**

Evaluation of biomass technologies including solid biomass combustion, municipal solid waste, landfill and digester gas and ethanol. Such analyses would include fuel supply and transport analyses and other issues related to the entire biomass fuel cycle.

1B.1.2 Geothermal

Evaluation of geothermal technologies applicable to hydrothermal, geopressurized and hot dry rock resources. Examination of resource base and potential markets.

1B.1.3 Hydropower

Evaluation of hydropower including refurbishments/upgrades, pumped storage plants and run of river plants.

1B.1.4 Photovoltaic

Evaluation of photovoltaic technologies for central station and off-grid applications. Examination of backup and/or storage systems to be used with such technologies.

1B.1.5 Solar Thermal Electric

Evaluation of solar thermal electric systems including systems with storage and systems used for peaking purposes.

1B.1.6 Wind

Evaluation of wind technologies in the U.S. and elsewhere. Examination of seasonal power production and uses of wind power in an integrated system.

1B.1.7 Hydrogen

Evaluation of technologies using hydrogen including PV based production and fuel cell use.

1B.2 Renewable End-Use Technologies

Evaluation of opportunities for renewables in end-use sectors including solar water heaters and biomass space heating.

1B.3 Waste Gas Supply Side Technologies**1B.3.1 Coal Mine Methane**

Evaluation of technologies available to produce and use methane liberated in coal mining. Examination of resource base and potential markets.

68D20178

1B.3.2 Natural Gas Systems

Evaluation of technologies to minimize and/or use methane escaping from natural gas systems.

1C. Technology Market Assessments and Evaluation

Evaluation of markets in which these technologies compete. Such evaluation would include examination of manufacturing estimates including cost, volume and production parameters; the economics of the technology both now and projected into the future; various barriers to market penetration; and examination of the present and potential role utilities might have in creating incentives (disincentives) for such technologies.

1D. Pollution Expertise**1D.1. Air Pollution**

Evaluation of emissions from Combustion or Industrial Sources. Assessment would include but not be limited to the following gases: nitrous oxides, methane, CO₂, nitrogen oxides, carbon monoxide, sulfur dioxide, chlorofluorocarbons, HCFCs, HFCs, halons and other emissions.

2. Regulatory Assessment and Analyses

Analytic support may be required in areas related to energy and environmental regulation at the international, federal, state and local levels. The areas of concern are listed below; however, this list is not meant to be all inclusive. Evaluation and analytic support will focus on laws, regulations, regulatory and legal decisions as well as industry standards and codes.

2A. Utility Regulation**2A.1 Utility Ratebase Analysis****2A.1.1 Internalizing Pollution Costs on Society**

Examine impacts on rates of various regulatory options on utilities including emissions limits and emission taxes.

2A.1.2 Treatment of Conservation Relative to the Ratebase

Examine state by state treatment of conservation investments. Explore the ramifications of such treatment vis a vis the incentives to utilities to pursue conservation strategies.

2A.1.3 Treatment of Investment Risk

68D20178

Evaluate the contribution of changes in fuel prices, environmental protocols/laws, independent power markets, and bidding programs, and how such factors would alter utilities' resource plans and investment strategies.

2A.1.4 Treatment of Environmental Externalities
Evaluate state by state treatment of environmental externalities in investment decisions. Examine methodologies used for such treatment and scope.

2A.1.5 Treatment of Independent Power Producers (IPPs) and Qualifying Facilities (QFs)
Evaluate the impact of IPPs and QFs on utility resource decisions and the regulatory review of these decisions. Explore the regulatory environment in which IPPs and Qfs must operate and the incentives/disincentives in the marketplace.

2A.2 Pipeline and Gas Supply Regulation
Evaluation of supply, rate and pipeline regulations as pertains to the natural gas industry.

2B. Energy Tax Analyses
Examine impacts of energy taxes on fuel choice, power plant utilization, etc. Analytic frameworks should include economic efficiency, behavior modification and revenue stability/neutrality.

3. Energy Markets and Modeling

Analytic and technical support may be required in areas related to energy markets and modeling. The areas of concern are listed below; however, this list is not meant to be all inclusive. Petroleum, gas, coal, nuclear and renewable markets are of special interest. Evaluation and analysis of extraction, transport and distribution of these primary and secondary sources of energy may be required as well.

Modeling of energy markets in support of EPA studies, programs and regulatory analyses may be required and determination of the best modeling systems and environments will be expected. The types of modeling listed below are of concern; however, this list is not meant to be all inclusive.

3A. Energy Markets

3A.1 Petroleum

3A.1.1 Petroleum Supply and Demand
Evaluate and examine sources of petroleum and its uses in the U.S. economy. Evaluate both

68D20178

conventional and unconventional sources, on-shore and off-shore as well as domestic and imported. Evaluate national security implication of petroleum sources.

3A.1.2 Alternatives to Petroleum by Market Niche

Evaluate opportunities for substitution of petroleum based products with non-petroleum based ones. Examine this potential not only for the transportation sector, but also explore specific market niches within the industrial, commercial and residential sectors.

3A.2 Natural Gas

3A.2.1 Natural Gas Supply and Geology

Evaluate conventional, unconventional, deep gas resources, LNG potential, potential of methanol conversions, cost of exploration/development and uncertainties for Canada, U.S., Mexico, Europe and elsewhere.

3A.2.2 Natural Gas Production, Transmission and Distribution Systems

Evaluate the natural gas distribution systems in the U.S. with particular emphasis on access to pipeline and natural gas markets, pipeline technology and controls, and emissions from pipelines, gas production facilities and other energy production facilities. Examine technologies, operating possibilities and other options for promoting emissions control.

3A.3 Coal

3A.3.1 Coal Mines and Mining

Examine current coal supply in the U.S. and elsewhere. Explore international supply and trade especially imports and exports to/from the U.S. Evaluate mining types and technologies, coal characteristics and geology.

3A.3.2 Pollution from Coal Mines and Mining

Evaluate sources of pollution from coal mines with special focus on sulfur, ash and methane contents as well as methane releases from mining activities. Explore various barriers and solutions for controlling such pollution including the property rights associated with mines, et. al.

3A.3.3 Coal Mining Regulations

Evaluate national and international regulations and operating practices in coal mines

68D20178

-- both surface and underground.

3A.5 Nuclear

Evaluate nuclear power plants currently operating in the U.S. and the potential for future development of this technology.

3A.4 Renewable

3A.4.1 Biomass

Determine resource base for biomass in the U.S. and elsewhere and potential markets for biomass combustion. Examine the farming of biomass as an energy source as well as a greenhouse gas stabilization strategy. Explore various barriers and solutions for reducing emissions of greenhouse gases from biomass sources.

3B. Modeling

3B.1 Supply Side Modeling

Model supplies of different forms of energy, especially binding constraints over time.

3B.2 End Use Modeling

Determine the end use demands on desegregated levels of vintages and equipment cohorts, sources of variation in end-use demands, etc.

3B.3 Simulation

Perform model simulations, especially in the areas of physical systems and industrial organization. Maintain the system on site for quick turn-around analyses in support of ongoing policy analyses.

3B.4 Vintaging

Model stocks and flows of capital equipment over time in a vintaging framework.

3B.5 Econometrics

Perform statistics and econometrics with substantial background in theory to develop novel approaches and solutions to statistical problems.

3B.6 Economic and Regulatory Analysis Modeling

Develop models that explore the implications of regulatory actions, particularly resulting economic impacts and incentives.

Communications and Marketing

68D20178

The communication, promotion and organization of EPA programs, workshops and conferences may be required. In addition, graphical and editorial support may be required. The areas listed below are specific skills of concern; however, this list is not meant to be all inclusive.

4A. Communications

4A.1 Conference Planning Capabilities

Organize and sponsor conferences of varying size and scale: from small workshops or focus groups to large scale national and/or international meetings. This organization involves all phases of conferencing including fulfilling the planning and logistical preparations associated with such meetings as well as providing the necessary and comprehensive on site support to insure the smooth functioning of the meetings. (see Clause H.17 entitled "EPA Sponsored Meetings, Workshops, Conferences.")

4A.2 Graphics and Editing

Produce high quality graphics illustrating complicated technical information. This work involves the rapid production of graphics as well as the alterations and corrections under tight deadlines. The ability to successfully edit and make high caliber products with quick turnaround time is essential.

4A.3 Educational Material Production

Organize, produce and complete a variety of educational materials. These materials include, but are not limited to: pamphlets, slides, graphs, presentation materials, floppy disks and tapes. These materials will be used as educational tools to convey technical information to a lay audience. This work also involves the translation of complicated ideas into concrete examples or images. (see Clause H.1 entitled "Printing.")

4A.4 Questionnaire Design and Polling

Develop survey designs which will yield statistically significant results. Evaluate the nature and purpose of the needed information and frame the appropriate questions for the survey. Provide the necessary personnel to complete the survey and evaluate the results. (see Clause H.15 entitled "Paperwork Reduction Act.")

4B. Marketing Assistance and Analysis

4B.1 List Analyses and Mailings

Design, develop, implement and maintain lists of people involved in program activities. Organize and prepare mailings associated with program activities.

68D20178

5. Database Design and Implementation, Management Models, Computer and Geographic Information Systems

Analytic and technical support may be required in areas related to databases and computer models and systems. The areas of concern are listed below; however, this list is not meant to be all inclusive. Design, development, implementation, maintenance, de-bugging and overall support for these systems may be required.

5A. Database Design and Implementation

Design, develop, implement and maintain databases relating to EPA program support as well as energy and environmental information. Retain the ability to create custom programs to manipulate such databases as well as the ability to design, develop, implement and maintain user interfaces for such databases that could be used by EPA staff.

5B. Management Systems

Design, develop, implement and maintain management information systems. Design a system that would be user friendly and could be used by EPA staff on a day to day basis.

5C. Computer Systems

Design, evaluate and support computer and information systems used by EPA staff. Develop, implement and maintain computer programs that support program development and implementation.

5D. Geographic Information Systems (GIS)

Design, evaluate and support GIS systems used by EPA staff. Support the digitizing of boundary layer files, manipulation of data in various formats including magnetic tape and floppy disks. Retain the ability to interface with various database applications and formats. Retain the availability of high quality graphics output including both color slides and hard copy.

6. Program Development and Implementation

6A. Energy Efficiency Program Design and Implementation

6A.1 Development of Program Materials

Develop program materials such as guidance booklets, report formats, confidential business information procedures, and standardized correspondence which will assist in the implementation of regulatory programs. Work with government staff in dealing with industry and public interest groups to operate the program successfully.

6A.2 Tracking of Other Government Programs

Analyze and keep current on the programmatic

68D20178

details of other EPA programs and related programs in the Department of Energy, the Department of Interior, the Department of Commerce and other federal, state and local government agencies.

7. Literature Search and Retrieval Services

7A. Literature Search Capabilities

Access to multiple on-line services that offer indexing of pertinent literature to the energy and environmental fields.

7B. Expert Network

Ability to locate and involve experts in fields relating to energy supply, energy conservation and the environment.

8. Greenhouse Gases

Analysis and evaluation of projections, measurements, databases for nitrous oxide, methane, carbon dioxide, carbon monoxide, non-methane hydrocarbons; both terrestrial and aquatic.

8A. Methane

8A.1 Methane Science and Atmospheric Chemistry

Evaluate methane's role in the troposphere and stratosphere, chemical reactions and other interactions.

8A.2 Methane Sources

Evaluate methane emissions from various sources, both man-made and natural, including mechanisms of methane generation and emissions, emission estimates and options for mitigation. Sources evaluated should include, but not be limited to coal mine methane; natural gas leakage, landfill gas, animal waste methane, ruminant animal emissions, rice paddy emissions and natural sources.

8B. Carbon Dioxide

Evaluation of emissions from various sources and options for mitigation. Exploration of technological alternatives to reducing carbon dioxide emissions. Evaluation of carbon dioxide's contributions to greenhouse warming.

8C. Climate Change and its Effect on Air Pollution

Assessment of the effects of UV-B, temperature inversions, changes in emissions on oxidants, etc. on air pollution.

8D. Ozone Depleting Substances

Evaluation of emissions and technological alternatives to ozone depleting substances. Analyses

68D20178

might include: evaluation of health and environmental impacts of short and long term technological options; atmospheric impacts of ozone depleting substances as well as possible substitutes; and institutional obstacles to eliminating use.

Provide analytic support for activities to implement Title VI of the Clean Air Act. Such support would include: Regulatory Impact Analyses, evaluation of program options, evaluation of safe alternatives, other regulatory and document support as well as analyses of implementation issues.

EMR
68D20147ATTACHMENT A
STATEMENT OF WORK

BACKGROUND

In recent years, electric utilities in the U.S. have steadily increased the amount of conservation and load management services they offer to their customers. To date, over 800 electric utilities have offered over 1000 "demand-side management" (DSM) programs. However, despite this trend, utility conservation programs are not targeting and exploiting all of the opportunities that exist. By and large, conservation incentives such as lighting rebates are designed for the short-term, promoting the most efficient appliances already on the market. They have not provided strong enough inducements or sufficient time for manufactures to shift their longer-term production priorities toward more advanced, super-efficient technologies. In conservation procurement strategies that are much on the same footing in terms of lead time are planning, permitting and constructing new supply-side resources.

Opportunities for conservation and efficiency improvements exist in many areas (e.g., appliances, lighting, heating, air conditioning, ventilation and service water heating). Converting to energy-efficient equipment in the residential, commercial and industrial sectors not only reduces energy consumption but also prevents the emission of air pollutants such as CO₂, SO₂ and NO_x. Energy efficiency further reduces the environmental damage caused by the mining and transportation of fuels (strip mine damage, acid mine drainage, natural gas leakage, etc.) and the disposal of utility wastes (boiler ash, scrubber waste, spent nuclear fuels, etc.). Estimates indicate that the full implementation of EPA's Green Lights Program alone can reduce energy consumption by 50 percent of the national total) 1.7 million tons of SO₂ (7 percent of the national total) and 900,000 tons of NO_x (4 percent of the national total).

OBJECTIVE

The overall objective of this project is to provide technical support services on lighting technology research, development and assessment; economic evaluation and modeling; regulatory assessment and marketing and communications to the EPA's Green Lights Program.

SPECIFIC REQUIREMENTS

The contractor shall perform the services under this contract as directed in work assignments issued by the Contracting Officer. Technical services are required in the following areas.

Research, Development and Demonstration

68D20147

The contractor shall perform the following:

- Surveys of manufactures, utilities, building owners and others
- Development of an understanding of specific industries in U.S. and abroad
- Literature/database searches
- Development of prototypes
- Research of institutional barriers and constraints
- Scoping of advanced technologies
- Collection of technical and economic information on state-of-the-art technologies
- Collection of information on Federal and state regulations, standards, and codes
- Energy audits/environmental assessments
- Testing and demonstration of technologies, product and instruments

Technology Assessment

The contractor shall perform the following:

- Technical and economic assessment of various technologies
- Development of energy-efficient equipment profiles
- Cost/benefits analysis
- Evaluation of institutional barriers and constraints that restrict market penetration
- Assessment of demand-side management programs and options
- Evaluation of least-cost and integrated resource technologies and methods
- Assessment of environmental impacts of technologies, systems and equipment.

Product Financing and Economic

The contractor shall perform the following:

- Evaluation of third-party financing mechanisms
- Assessment of shared energy savings and leasing options for retrofit of efficient equipment.
- Evaluation of manufacturing capabilities and funding mechanisms in U.S. and abroad for energy-efficient technologies
- Survey and database development on financing options
- Development of financing guidebooks, handbooks and other materials
- Economic/feasibility studies
- Life cycle cost evaluations of systems and equipment

Assessment of Codes, Standards and Regulations

The contractor shall perform the following:

- Monitoring and evaluation of national energy efficiency codes and standards
- Monitoring and evaluation of international energy efficiency codes and standards
- Development of guideline for disposal of systems and produce containing hazardous materials

Computer Modeling and Information Processing

68D20147

The contractor shall perform the following:

- Development of planning and technology assessment models
- Development of computerized decision support systems
- Development of computerized databases
- Perform cost/benefit analysis using public and/or proprietary computer models
- Processing of text and graphics for information materials
- Technical and economic assessment of currently available computer models for energy system analysis

Computer Software Development

The contractor shall perform the following:

- Development of software for interactive computer training programs
- Development of software for new relational databases on energy and the environment

Marketing and Communications

The contractor shall perform the following:

- Market research and assessment of specific technologies, end-uses, applications and sectors
- Development of audio/visuals materials
- Market surveys
- Supply/demand assessment and forecast
- Development of strategies for reform and institutional restructuring
- Development of success stories
- Public/industry relations assistance
- Development and placement of advertising/promotional materials (articles, news releases, etc.)
- Development of marketing/communications materials (brochures, fact sheets, compendiums, etc.)
- Networking with industry and others for program implementation and promotion

Information Dissemination/Technology Transfer

The contract shall perform the following:

- Development of user guides
- Development of handbooks and fact sheets on energy-efficient technologies
- Development of monographs and brochures
- Development of computerized information management and dissemination services
- Development of market kits
- Development of presentation materials
- Development of audio/video materials
- Planning, establishment and management of technology and information dissemination centers
- Establishment of public information support mechanisms
- Provision of information to private companies on environmental protection

68D20147

Education and Training

The contractor shall perform the following:

- Development of computerized training methods
- Planning and management of seminars/workshops
- Development of instructor/student texts and other support materials
- Development of curriculum for educational courses
- Presentation at various seminars/workshops

Conference Technical and Administrative Support

The contractor shall perform the following:

- Planning and coordinate agendas
- Providing logistic, coordination and technical support
- Make arrangements for or prepare conference documents such as case studies, speeches and reports
- Arranging for conference facilities including travel and hotel arrangements, support services, printing and distribution of program materials

Other Technical Support

The contractor shall perform the following:

- Development and implementation of local area networks

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68D30087ATTACHMENT A
STATEMENT OF WORK

BACKGROUND

The Environmental Protection Agency's Global Change Division initiates programs to support development and mass market implementation of technologies that cost-effectively reduce combustion-related pollution through improved productivity and use of less polluting and/or renewable resources.

The Global Change Division analyzes the pollution prevention opportunities of various technologies and develops partnerships to encourage growth of technologies with significant potential. The Division identifies and explores market enhancement mechanisms to increase investment in environmentally favorable technologies.

The contractor shall furnish all necessary personnel, equipment, office space, transportation, supplies, materials and services (unless otherwise specified herein), needed to analyze, design, develop, deliver, and support implementation of activities to be carried out under this contract. Work will be initiated by the issuance of work assignments signed by the contracting officer.

SPECIFICATIONS

The contractor shall provide the EPA with a weekly report of the status of all graphics projects. See Attachment B for details on reporting requirements.

A. Graphics Support

The contractor shall provide graphics support to the Global Change Division in support of program goals including, but not limited to the list in background section above. The contractor shall develop, prepare, and revise graphics including, but not limited to slides, transparencies, text charts, line charts, bar charts, graphs, schematic drawings, brochures, and reports. It is anticipated that most of the work to be carried out under this task will be for materials needed by the EPA for briefings or information meetings. In instances identified by work assignments the contractor shall provide graphics support on a quick-turnaround basis, (Example: Work shall be returned to the Work Assignment Manager within (1) hour after the contractor receives comments from the Work Assignment Manager on an initial draft).

B. Multi-Media Support

In addition to normal graphics capability, the Global Change Division requires graphics support for multi-media presentations.

68D30087

The contractor shall prepare graphical business presentations that use traditional slides, as well as audio sound (both recorded and synthesized on system), full motion video, and animation.

The contractor shall prepare outlines, storyboards, draft and final versions of multi-media presentations which may include slides, animation, video, or other media, alone or in any combination as determined by work assignments. Often, presentations will be fully composed of edited video. Consequently, the support team should have experience in filming and editing video. The contractor shall use a computer system compatible with the EPA's hardware, multi-media devices and software, including but not limited to:

Hardware: 486 computer, with all performance enhancements and a 19" SVGA monitor

Multi-media Devices: Microsoft multi-mediaPC (MPC)

Standard Equipment:

- CD-ROM
- Audio-video input and output (includes digital sound synthesizer, speakers and microphone)
- Stereo VCR player
- TV-Link box that allows the presentation to be saved to videocassette for viewing on a TV.

Software: HSC InterActive
Macromind Action and/or Director
Proprietary software for TV-Link box

EMR
68D20136

ATTACHMENT A
STATEMENT OF WORK

Energy Productivity and Pollution Prevention

This scope of work is organized into the following sections

- I). Background and purpose- This section provides a brief description of the scientific, policy and international background of the issue and the specific nature of the work required.
- II). Statement of Work/Specifications- This section provides a description of the work areas covered under this scope of work. There are 7 specific work areas. The areas for which the contractor shall be responsible are as follows:
 1. Technological Assessment and Engineering Analysis.
 2. Regulatory Assessment and Analyses.
 3. Energy Markets and Modeling.
 4. Communications and Marketing.
 5. Program Development and Implementation
 6. Literature Search and Retrieval Services.
 7. Greenhouse Gases.

I). BACKGROUND AND PURPOSE

A variety of trace gas emissions from various man made sources and natural sources are changing the composition of the global atmosphere. These gases threaten to deplete the ozone layer in the stratosphere, change global climate and alter the chemical balance of the lower atmosphere. It will be necessary to evaluate and analyze projections, measurements, databases for nitrous oxide, methane, carbon dioxide, carbon monoxide, non-methane hydrocarbons and other gases.

In order to reduce the damage from global atmospheric change to the world's environments, economies and health, the Environmental Protection Agency's Global Change Division initiates programs to support development and mass market implementation of technologies that cost-effectively reduce combustion-related pollution through improved productivity and

68D20138

of less polluting and/or renewable resources.

The Global Change Division analyzes the pollution prevention opportunities of various technologies and develops partnerships to encourage growth of technologies with significant potential. Market enhancement mechanisms are identified and explored to increase investment in environmentally favorable technologies.

A variety of options exist to define and limit the changes in the atmosphere due to increases in atmospheric concentrations of gases. A major part of the work described under this scope of work deals with identifying and analyzing conservation and demand side management technologies in the residential, commercial, industrial, transportation and utility sectors, technologies using renewable resources of energy, pollution expertise, utility regulation and ratebase analysis, and analysis of greenhouse gas emissions and reduction options. The analysis is defined in ways to identify market enhancement options to ensure appropriate technologies are used on a large scale.

II) SCOPE OF WORK

The contractor shall furnish the necessary personnel, material, equipment, services and facilities (except as otherwise specified) to perform the Statement of Work/Specifications as follows:

The contractor shall perform work under this contract only as directed in work assignments issued by the Contracting Officer.

SPECIFIC WORK AREAS:

EPA requires technical and analytical support in the following areas and will issue work assignments in accordance with Section B of this contract.

1. Technological Assessment and Engineering Analysis

Analytic and technical support may be required in areas related to energy and environmental technologies. The areas of concern are listed below; however, this list is not meant to be all inclusive. Technological assessment, engineering analysis, evaluation and analysis in support of EPA programs and in support of standard setting are required.

1A. Conservation and Demand Side Management Technologies

1A.1 Residential Sector Technologies

1A.1.1 Appliances

Analysis of sales, stock, vintage and

68D20136

distribution data for all appliances and all relevant fuel types particularly refrigerators/freezers, heat pumps and water heaters.

a. Refrigerators/Freezers

Determination of various designs to incorporate energy efficiency improvements and the use of alternative refrigerants. Evaluation of technological possibilities focusing annual energy consumption.

b. Heat Pumps

Evaluation of heat pump technologies especially variable speed, air-to-air and geothermal types. Focus on integrated end-uses for heat pumps (i.e. water heating and close drying in addition to space conditioning).

c. Water Heaters

Evaluation of water heater technologies focusing both on the energy and water saving potential from improvements.

d. Heating and Cooling

Evaluation of heating and cooling technologies and HVAC systems. Such technologies would include boilers, furnaces and air conditioners. Analysis of district heating and cooling possibilities is also of interest.

e. Other

Evaluation of other energy consuming appliance technologies in the residential sector that would include but not be limited to clothes washers, clothes dryers, cooking ranges and residential lighting technologies.

1A.1.2 Building Envelopes

Analysis and evaluation of overall building design in terms of energy efficiency opportunities. Such examinations would include heat loss analyses, insulation, glazing, HVAC and lighting control technologies. Determination of indoor air quality ramifications and use of non-CFC products would be important.

1A.2 Commercial Sector Technologies

1A.2.1 Equipment

a. Lighting

Analysis of energy efficient lighting

68D20136

equipment including fixtures, ballasts, bulbs and lighting systems. Technological support for ongoing Green Lights program.

b. Chillers

Analysis of existing electric and absorption systems and refrigerants, service and maintenance practices, emission patterns redesign, optimization for adaption to alternative refrigerants, technological possibilities for energy efficiency.

c. Heat Pumps

Evaluation of heat pump technologies especially variable speed, air-to-air and geothermal types. Focus on integrated end-uses for heat pumps (i.e. water heating and clothes drying in addition to space conditioning).

d. Water Heating

Evaluation of water heater technologies for the commercial sector focusing both on the energy and water saving potential from improvements.

e. Heating and Cooling

Evaluation of heating and cooling technologies and HVAC systems for commercial applications. Such technologies would include boilers, furnaces, packaged heating units, baseboard heaters and packaged air conditioner units. Analysis of district heating and cooling possibilities is also of interest.

f. Energy Management Systems

Determination of appropriate energy management controls, operations and systems that would allow commercial users to use energy more productively.

1A.2.2. Building Envelopes

Analysis and evaluation of overall building design in terms of energy efficiency opportunities. Such examinations would include heat loss analyses, insulation, glazing, HVAC and lighting control technologies. Determination of indoor air quality ramifications and use of non-CFC products would be important.

1A.3 Industrial Sector Technologies

1A.3.1 Equipment

68D20136

- a. **Air Pollution Control Equipment**
Analysis and evaluation of the control of industrial processes that emit long lived compounds from other than combustion processes.
 - b. **Motors**
Technical evaluation and assessments of energy savings technologies and controls for industrial motors. Attention should be paid as to how motors relate to the industrial process as a whole and the potential costs of installation delays.
 - c. **Process Related Technologies**
Determination and evaluation of technologies specific to process industries that would result in energy savings.
 - d. **Waste Heat Capture/Cogeneration**
Evaluation and analysis of technologies that allow industries to reclaim their waste heat and/or cogenerate electricity and steam.
 - e. **Lighting**
Technical analysis and evaluation of energy efficient lighting technologies applicable to industrial facilities.
 - f. **Energy Management Systems**
Determination of appropriate energy management controls, operations and systems that would allow industrial users to use energy more productively.
- 1A.3.2 **Building Envelopes**
Analysis and evaluation of overall building design in terms of energy efficiency opportunities. Such examinations would include heat loss analyses, insulation, glazing, HVAC and lighting control technologies. Determination of indoor air quality ramifications and use of non-CFC products would be important.
- 1A.4 **Transportation Sector Technologies**
- 1A.4.1 **Mechanical Design Technologies**
Evaluation of power train technologies, aerodynamic drag, ceramic engines and other mechanical design features for vehicles.
 - 1A.4.2 **Alternative Fuels**
Analysis and evaluation of alternative fuels and automotive power train designs including methanol, ethanol, hydrogen, natural gas and

68D20136

external combustion engines. Analysis of resource availability and markets and emissions contributions of various fuels important.

1A.4.3 Electric Vehicles

Analysis and evaluation of electric vehicle design; battery technologies and required infrastructure including energy and demand growth expectations (load factors and potential valley filling) for utility systems.

1A.5 Utility Sector Technologies

1A.5.1 Power Generation Technologies

Analysis of power generation technologies and operating characteristics focusing on fuel use, efficiencies and emissions. Technological assessment for ongoing developments in power engineering. Interest in all types of plants, fuels and co-firing combinations including fossil steam plants, high efficiency gas turbines, IGCC's and fuel cells.

1A.5.2 Transmission and Distribution

Analysis and evaluation of technologies that transmit and distribute power over the nation's power grid. Technical evaluation would include a look at transformers and energy storage technologies as well as the environmental and human health ramifications of the transmission and distribution grid including line losses and EMP radiation.

1A.5.3 Air Pollution Control Equipment

Analysis and evaluation of the control of utility power plant emissions.

1A.5.4 Metering and Submetering Equipment

Determination and evaluation of technologies used for metering and submetering applications especially in residential and commercial multi-unit buildings.

1A.6 Other Technologies

Evaluation and assessment of other technologies used by the electric power industry in providing electric energy to end-users.

1B. Technologies Using Renewable Sources of Energy

1B.1 Renewable Supply Side Technologies

1B.1.1 Biomass

Evaluation of biomass technologies including

68D20136

solid biomass combustion, municipal solid waste, landfill and digester gas and ethanol. Such analyses would include fuel supply and transport analyses and other issues related to the entire biomass fuel cycle.

1B.1.2 Geothermal

Evaluation of geothermal technologies applicable to hydrothermal, geopressurized and hot dry rock resources. Examination of resource base and potential markets.

1B.1.3 Hydropower

Evaluation of hydropower including refurbishments/upgrades, pumped storage plants and run of river plants.

1B.1.4 Photovoltaic

Evaluation of photovoltaic technologies for central station and off-grid applications. Examination of backup and/or storage systems to be used with such technologies.

1B.1.5 Solar Thermal Electric

Evaluation of solar thermal electric systems including systems with storage and systems used for peaking purposes.

1B.1.6 Wind

Evaluation of wind technologies in the U.S. and elsewhere. Examination of seasonal power production and uses of wind power in an integrated system.

1B.1.7 Hydrogen

Evaluation of technologies using hydrogen including PV based production and fuel cell use.

1B.2 Renewable End-Use Technologies

Evaluation of opportunities for renewables in end-use sectors including solar water heaters and biomass space heating.

1B.3 Waste Gas Supply Side Technologies

1B.3.1 Coal Mine Methane

Evaluation of technologies available to produce and use methane liberated in coal mining. Examination of resource base and potential markets.

1B.3.2 Natural Gas Systems

Evaluation of technologies to minimize and/or use methane escaping from natural gas systems.

68D20138

1C. Technology Market Assessments and Evaluation

Evaluation of markets in which these technologies compete. Such evaluation would include examination of manufacturing estimates including cost, volume and production parameters; the economics of the technology both now and projected into the future; various barriers to market penetration; and examination of the present and potential role utilities might have in creating incentives (disincentives) for such technologies.

1D. Pollution Expertise

1D.1. Air Pollution

Evaluation of emissions from Combustion or Industrial Sources. Assessment would include but not be limited to the following gases: nitrous oxides, methane, CO₂, nitrogen oxides, carbon monoxide, sulfur dioxide, chlorofluorocarbons, HCFCs, HFCs, halons and other emissions.

2. Regulatory Assessment and Analyses

Analytic support may be required in areas related to energy and environmental regulation at the international, federal, state and local levels. The areas of concern are listed below; however, this list is not meant to be all inclusive. Evaluation and analytic support will focus on laws, regulations, regulatory and legal decisions as well as industry standards and codes.

2A. Utility Regulation

2A.1 Utility Ratebase Analysis

2A.1.1 Internalizing Pollution Costs on Society
Examine impacts on rates of various regulatory options on utilities including emissions limits and emission taxes.

2A.1.2 Treatment of Conservation Relative to the Ratebase
Examine state by state treatment of conservation investments. Explore the ramifications of such treatment vis a vis the incentives to utilities to pursue conservation strategies.

2A.1.3 Treatment of Investment Risk
Evaluate the contribution of changes in fuel prices, environmental protocols/laws, independent power markets, and bidding programs, and how such factors would alter utilities' resource plans and

68D20136

investment strategies.

2A.1.4 Treatment of Environmental Externalities
Evaluate state by state treatment of environmental externalities in investment decisions. Examine methodologies used for such treatment and scope.

2A.1.5 Treatment of Independent Power Producers (IPPs) and Qualifying Facilities (QFs)
Evaluate the impact of IPPs and QFs on utility resource decisions and the regulatory review of these decisions. Explore the regulatory environment in which IPPs and QFs must operate and the incentives/disincentives in the marketplace.

2A.2 Pipeline and Gas Supply Regulation
Evaluation of supply, rate and pipeline regulations as pertains to the natural gas industry.

2B. Energy Tax Analyses

Examine impacts of energy taxes on fuel choice, power plant utilization, etc. Analytic frameworks should include economic efficiency, behavior modification and revenue stability/neutrality.

3. Energy Markets and Modeling

Analytic and technical support may be required in areas related to energy markets and modeling. The areas of concern are listed below; however, this list is not meant to be all inclusive. Petroleum, gas, coal, nuclear and renewable markets are of special interest. Evaluation and analysis of extraction, transport and distribution of these primary and secondary sources of energy may be required as well.

Modeling of energy markets in support of EPA studies, programs and regulatory analyses may be required and determination of the best modeling systems and environments will be expected. The types of modeling listed below are of concern; however, this list is not meant to be all inclusive.

3A. Energy Markets

3A.1 Petroleum

3A.1.1 Petroleum Supply and Demand

Evaluate and examine sources of petroleum and its uses in the U.S. economy. Evaluate both conventional and unconventional sources, on-shore and off-shore as well as domestic and imported. Evaluate national security implication of petroleum sources.

68D20136

3A.1.2 Alternatives to Petroleum by Market Niche

Evaluate opportunities for substitution of petroleum based products with non-petroleum based ones. Examine this potential not only for the transportation sector, but also explore specific market niches within the industrial, commercial and residential sectors.

3A.2 Natural Gas

3A.2.1 Natural Gas Supply and Geology

Evaluate conventional, unconventional, deep gas resources, LNG potential, potential of methanol conversions, cost of exploration/development and uncertainties for Canada, U.S., Mexico, Europe and elsewhere.

3A.2.2 Natural Gas Production, Transmission and Distribution Systems

Evaluate the natural gas distribution systems in the U.S. with particular emphasis on access to pipeline and natural gas markets, pipeline technology and controls, and emissions from pipelines, gas production facilities and other energy production facilities. Examine technologies, operating possibilities and other options for promoting emissions control.

3A.3 Coal

3A.3.1 Coal Mines and Mining

Examine current coal supply in the U.S. and elsewhere. Explore international supply and trade especially imports and exports to/from the U.S. Evaluate mining types and technologies, coal characteristics and geology.

3A.3.2 Pollution from Coal Mines and Mining

Evaluate sources of pollution from coal mines with special focus on sulfur, ash and methane contents as well as methane releases from mining activities. Explore various barriers and solutions for controlling such pollution including the property rights associated with mines, et. al.

3A.3.3 Coal Mining Regulations

Evaluate national and international regulations and operating practices in coal mines -- both surface and underground.

3A.5 Nuclear

Evaluate nuclear power plants currently operating

68D20136

in the U.S. and the potential for future development of this technology.

3A.4 Renewable

3A.4.1 Biomass

Determine resource base for biomass in the U.S. and elsewhere and potential markets for biomass combustion. Examine the farming of biomass as an energy source as well as a greenhouse gas stabilization strategy. Explore various barriers and solutions for reducing emissions of greenhouse gases from biomass sources.

3B. Modeling

3B.1 Supply Side Modeling

Model supplies of different forms of energy, especially binding constraints over time.

3B.2 End Use Modeling

Determine the end use demands on desegregated levels of vintages and equipment cohorts, sources of variation in end-use demands, etc.

3B.3 Simulation

Perform model simulations, especially in the areas of physical systems and industrial organization. Maintain the system on site for quick turn-around analyses in support of ongoing policy analyses.

3B.4 Vintaging

Model stocks and flows of capital equipment over time in a vintaging framework.

3B.5 Econometrics

Perform statistics and econometrics with substantial background in theory to develop novel approaches and solutions to statistical problems.

3B.6 Economic and Regulatory Analysis Modeling

Develop models that explore the implications of regulatory actions, particularly resulting economic impacts and incentives.

4. Communications and Marketing

The communication, promotion and organization of EPA programs, workshops and conferences may be required. In addition, graphical and editorial support may be required. The areas listed below are specific skills of concern;

68D20136

however, this list is not meant to be all inclusive.

4A. Communications

4A.1 Conference Planning Capabilities

Organize and sponsor conferences of varying size and scale: from small workshops or focus groups to large scale national and/or international meetings. This organization involves all phases of conferencing including fulfilling the planning and logistical preparations associated with such meetings as well as providing the necessary and comprehensive on site support to insure the smooth functioning of the meetings. (see Clause E.17 entitled "EPA Sponsored Meetings, Workshops, Conferences.")

4A.2 Graphics and Editing

Produce high quality graphics illustrating complicated technical information. This work involves the rapid production of graphics as well as the alterations and corrections under tight deadlines. The ability to successfully edit and make high caliber products with quick turnaround time is essential.

4A.3 Educational Material Production

Organize, produce and complete a variety of educational materials. These materials include, but are not limited to: pamphlets, slides, graphs, presentation materials, floppy disks and tapes. These materials will be used as educational tools to convey technical information to a lay audience. This work also involves the translation of complicated ideas into concrete examples or images. (see Clause E.1 entitled "Printing.")

4A.4 Questionnaire Design and Polling

Develop survey designs which will yield statistically significant results. Evaluate the nature and purpose of the needed information and frame the appropriate questions for the survey. Provide the necessary personnel to complete the survey and evaluate the results. (see Clause E.15 entitled "Paperwork Reduction Act.")

4B. Marketing Assistance and Analysis

4B.1 List Analyses and Mailings

Design, develop, implement and maintain lists of people involved in program activities. Organize and prepare mailings associated with program activities.

Program Development and Implementation

5A. Energy Efficiency Program Design and Implementation

68D20136

5A.1 Development of Program Materials

Develop program materials such as guidance booklets, report formats, confidential business information procedures, and standardized correspondence which will assist in the implementation of regulatory programs. Work with government staff in dealing with industry and public interest groups to operate the program successfully.

5A.2 Tracking of Other Government Programs.

Analyze and keep current on the programmatic details of other EPA programs and related programs in the Department of Energy, the Department of Interior, the Department of Commerce and other federal, state and local government agencies.

6. Literature Search and Retrieval Services**6A. Literature Search Capabilities**

Access to multiple on-line services that offer indexing of pertinent literature to the energy and environmental fields.

6B. Expert Network

Ability to locate and involve experts in fields relating to energy supply, energy conservation and the environment.

7. Greenhouse Gases

Analysis and evaluation of projections, measurements, databases for nitrous oxide, methane, carbon dioxide, carbon monoxide, non-methane hydrocarbons; both terrestrial and aquatic.

7A. Methane**7A.1 Methane Science and Atmospheric Chemistry**

Evaluate methane's role in the troposphere and stratosphere, chemical reactions and other interactions.

7A.2 Methane Sources

Evaluate methane emissions from various sources, both man-made and natural, including mechanisms of methane generation and emissions, emission estimates and options for mitigation. Sources evaluated should include, but not be limited to coal mine methane, natural gas leakage, landfill gas, animal waste methane, ruminant animal emissions, rice paddy emissions and natural sources.

7B. Carbon Dioxide

Evaluation of emissions from various sources and options for mitigation. Exploration of technological

68D20136

alternatives to reducing carbon dioxide emissions. Evaluation of carbon dioxide's contributions to greenhouse warming.

- 7C. Climate Change and its Effect on Air Pollution
Assessment of the effects of UV-B, temperature inversions, changes in emissions on oxidants, etc. on air pollution.
- 7D. Ozone Depleting Substances
Evaluation of emissions and technological alternatives to ozone depleting substances. Analyses might include: evaluation of health and environmental impacts of short and long term technological options; atmospheric impacts of ozone depleting substances as well as possible substitutes; and institutional obstacles to eliminating use.
Provide analytic support for activities to implement Title VI of the Clean Air Act. Such support would include: Regulatory Impact Analyses, evaluation of program options, evaluation of safe alternatives, other regulatory and document support as well as analyses of implementation issues.

ATTACHMENT B
REPORTS OF WORK

MONTHLY PROGRESS REPORT--COST TYPE CONTRACT
(EPAAR 1552.210-72) (SEP 1690)

The contractor shall furnish two (2) copies of a combined monthly technical and financial progress report briefly stating the progress made, including the percentage of the project completed during the reporting period. If work is ordered using work assignments include the percentage of work ordered and completed during the reporting period. Specific discussions shall include difficulties encountered and remedial action taken during the reporting period and anticipated activity during the subsequent reporting period. In addition, the report shall specify contract financial status as follows:

(a) For term form contracts, provide:

(a)(1) Cumulative totals for the contract amounts obligated, amounts claimed, and remaining available funds. Available funds are defined as the total obligated amount less total amounts claimed.

(a)(2) Cumulative labor hours and dollars, broken out by prime and subcontractor labor category, expended from the effective date of the contract through the last day of the current reporting month.

(a)(3) Actual costs and direct labor hours expended during the current reporting month.

(a)(4) Estimated costs and direct labor hours to be expended during the next reporting period.

(a)(5) Actual costs and direct labor hours incurred for each work assignment issued and estimates of costs and man hours required to complete each work assignment.

(b) For completion form contracts, provide a graph using a vertical axis for dollars and a horizontal axis for time increments that shows the actual and projected rate of expenditures against the total estimated cost of the contract.

(c) This submission does not change the notification requirements of the "Limitation of Cost" or "Limitation of Funds" clauses requiring separate written notice to the Contracting Officer.

(d) The reports shall be submitted to the following addressees on or before the 20th of each month following the first complete calendar month of the contract.



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