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# THE 1979 POLYCHLORINATED BIPHENYL CONTAMINATION INCIDENT AT BILLINGS, MONTANA

## THE STATE OF MONTANA'S POSITION REPORT

STATE OF MONTANA COLLECTOR

1980

DEPARTMENT OF REVENUE  
STATE OF MONTANA  
HELENA, MONTANA 59615



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Submitted by the following  
Montana State Agencies:

- Department of Agriculture
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INCIDENT AT BILLINGS, MONTANA

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## CONTENTS

INTRODUCTION

STATE AGENCY REPORTS

Department of Agriculture

Department of Health and Environmental Sciences

Department of Livestock

PROBLEMS

RECOMMENDATIONS

RESPONSE TO UNITED STATES DEPARTMENT OF AGRICULTURE, FOOD  
SAFETY AND QUALITY SERVICES REPORT OF INCIDENT





## INTRODUCTION

The 1979 Billings polychlorinated biphenyl (PCB) incident involving Pierce Packing Company resulted from the accidental rupturing of a transformer filled with cooling fluids containing PCB. An estimated 200 gallons of the toxic chemical eventually contaminated approximately 1.9 million pounds of the meat meal used for animal feed.

The federal Food and Drug Administration (FDA) initially announced the PCB contamination incident in early September and launched an extensive search for the source of contamination.

Montana State agencies learned of the problem on or about September 11, 1979. They immediately met to assess the situation and discuss action plans. Information provided them by federal agencies up to this time was less than adequate. On September 18 the first official meeting was held between the three state agencies (Agriculture, Health and Livestock) and the Food and Drug Administration.

At that meeting Food and Drug Administration representatives described the magnitude of the PCB contamination as widespread, since it involved several large shipments of contaminated meat meal to major distribution centers. Nineteen states and two foreign countries eventually were involved.

At the September 18 meeting, FDA requested assistance from the state agencies in continuing the investigation. Primary responsibilities assigned to the state agencies were: Agriculture, animal feeds; Health and Environmental Sciences, assessment of health risks, poultry, and eggs; Livestock, swine.

All three state agencies agreed to assume the assignments, believing that they would be acting as agents of the federal government in discharging these responsibilities.

Many phases emerged in the incident, including investigative, informational, corrective, enforcement and financial assistance. During the investigative phase, state and federal authorities sought to determine the extent of the contamination and to identify contaminated products. The informational effort was ongoing from September 14 when the first news release regarding the issue was released. The corrective aspect surfaced as state agencies tried to assist producers, manufacturers and dealers to ease their burden during this difficult time. Enforcement action illuminated serious questions relating to jurisdiction, liability, indemnification, tolerance levels and disposal methods. State government agencies, as well as producers, retailers and consumers were hamstrung by confusion. Some questions raised during the enforcement phase are still unanswered. As the initial shock of the incident subsided, questions quickly arose about financial assistance. The state agencies worked together to secure available federal help through the Small Business Administration.

The three state agencies assumed their individual responsibilities and coordinated their efforts throughout the incident. The directors and/or deputy directors continue to monitor and evaluate the situation, and currently are aggressively studying and acting upon the recommendations documented as a result of the PCB incident.

The Departments of Agriculture, Health and Environmental Sciences, and Livestock each have submitted statements describing their involvement in the PCB incident. Their individual reports comprise the next portion of this position paper.



Following the individual state agency reports, a section describing the problems encountered by one or more of the agencies during the incident has been included. The section following that documents the recommendations received from all three state agencies with respect to how federal, state and local agencies might better prepare to meet another toxic substance contamination emergency.

The final portion of the position paper is a response from the state agencies to the Report of the PCB Incident in the Western United States prepared by the Food Safety and Quality Service, U.S. Department of Agriculture, and released in January, 1980. Portions of that report are critical of selected state actions during the PCB incident, and the state agencies involved are responding to USDA's criticism.

STATE DEPARTMENT OF AGRICULTURE

W. Gordon McOmber, Director

In toxic substance incidents such as the PCB experience, the Department of Agriculture has the statutory responsibility in the feed area.

In the recent PCB incident, the State Department of Agriculture's role primarily was involved with contaminated animal feed. At the time of FDA notification, the majority of the contaminated feed products had been distributed to feed dealers or to farm consumers. At that point, a division administrator became coordinator between other state/federal agencies as our information about feed dealer/distributors became of prime importance. Our inspectors were the only large source of personnel with official sampling capabilities. As a result, our employees acted as trainers for many state and federal employees at the initial sampling and investigational stages. A letter of commendation was received from FDA complimenting our field staff and the cooperation that was displayed by all division personnel.

The Department's goal at the beginning of the PCB problem was to seek out and embargo all known contaminated animal feeds at the farm, retail, wholesale and manufacturer levels. Our legislative authority to investigate/sample/embargo is derived from the state feed law. Department personnel were immediately placed on standby and, upon proper instruction, were deployed with specific duties. Eight inspectors and supporting staff participated in the investigations. They worked nearly 400 hours of regular time and 50 hours of overtime and travelled 4,000 miles statewide.

Federal authorities initially assumed full responsibility for the investigation and requested state agencies' assistance. Federal

inspectors and state inspectors coordinated sampling/record review responsibilities at various assigned locations, and hundreds of suspect samples began to flow to federal laboratories for analysis.

FDA, USDA, and EPA realized the widespread crosscontamination of commercial feeds, chickens, eggs and hogs. These federal agencies also requested analytical assistance from the Department of Agriculture. On September 14, 1979, the State Department of Agriculture Director ordered the Laboratory Bureau to set up and perform PCB analyses on an emergency basis. The Director indicated that a large number of samples would have to be analyzed and that the laboratory turn-around time must be short. It was decided to suspend the routine feed and fertilizer analytical work for the duration of PCB projects. The Directors of Montana Departments of Agriculture and Agricultural Experiment Station came to a mutual agreement to offer analytical services for PCB analysis in the jointly operated laboratory.

To achieve the assigned objective the laboratory set up a temporary PCB budget, hired three temporary laboratory personnel, a part-time sample custodian and clerk, organized two three-men crews, ordered needed solvents, glassware, chemicals, freezer, standards, etc., and evaluated, set up and trained new personnel for PCB analysis.

During the PCB project the laboratory was evaluated by FDA and USDA through sample splitting and audit sample analysis. The results of these external quality assurance samples showed excellent correlation between our laboratory and the federal laboratories.

On September 24, 1979, the laboratory was set up and accepted samples for PCB analysis. To complete the PCB analytical requirements on the extremely large number of samples submitted to the laboratory, two eight-hour shifts six days a week were operated during the PCB emergency. The majority of PCB analyses were completed by December 21,

1979, and the laboratory returned to its normal work schedule. On a reduced basis, the laboratory continues with PCB analysis to date for EPA and as a service to individual producers and agri-business.

The first project started on September 24, 1979, with the cooperation of FDA. Samples were submitted by Montana Department of Agriculture personnel and FDA inspectors. The objective of this project was to survey and isolate commercial feeds and eggs containing PCB.

In December, 1979, the director requested a follow-up feed sampling program to assure that no commercial feeds containing PCB were being offered for sale in Montana. The analytical program was identical to the original feed project.

This project was set up through the Agricultural Experiment Station to offer analytical services on a fee basis to Montana growers, agri-business and concerned citizens. Various samples (soil, chicken fat, eggs, hog fat, commercial feeds, manure, etc.) from different sources were submitted under this program. Pierce Packing Company, among others, utilized this program to assist them in their clean-up project. This program is still on-going. The financial support for additional personnel, solvents, glassware, etc., came from analytical fees.

USDA requested laboratory assistance and entered into an agreement with the Montana Department of Agriculture to analyze chicken and hog fat for PCB contamination. The objective of this project was to relieve the heavy workload of USDA laboratories, therefore, assuring a faster turn-around time to Montana's growers for their official samples. Samples were submitted by USDA personnel. To expedite analytical time, USDA developed a statistical sample compositing for screening, and a confirmation analysis scheme which our laboratory utilized. The project was financed by USDA.

Increasing awareness of wide PCB use prompted the Montana EPA office to survey transformer oil and environmental

samples for PCB content. A request was made to our laboratory by EPA to analyze these samples. The project is continuing on a limited basis.

To date, the following samples have been received and analyzed for PCB on the various projects.

<u>PROJECT</u>	<u>NUMBER OF SAMPLES</u>	<u>NUMBER OF ANALYSIS (ALL TYPES)</u>
Feed and Egg (FDA)	73	158
Follow-up Feed (Department)	26	33
Service (Chemistry Station)	193	269
USDA	534*	498*
EPA	79	156
Total	<u>905</u>	<u>1,114</u>

\*The difference in number of samples and analysis is due to commingling of samples.

In addition to investigative and analytical efforts, the Department of Agriculture in concert with the Department of Livestock spearheaded the public information effort. This was the main nuts and bolts information effort regarding the initial involvement from FDA, briefing the public on state/federal agency involvement, the certification program for commercial pork and poultry producers, testing program for small producers, confirmation of loss figures and information regarding testing services of private laboratories. As the incident unfolded the Department of Health, Public Information Unit, also became involved.

As the incident was winding down, this department engineered and implemented the plan which ultimately secured disaster financing for victims from the Small Business Administration. Acquiring the Economic Dislocation Loan designation was done with assistance from both the Department of Livestock and Health's Solid Waste Management Bureau.

During the PCB incident, the director established inspection priorities which resulted in routine programs not receiving the normal amount of attention. The Department still is trying to compensate for loss of those inspections.

A considerable amount of time and monies were expended to assist in the PCB incident. The investigative, analytical, informational and economical assistance efforts tapped the Department's budget in excess of \$48,000. How all of these funds will be replaced is still in question.

STATE DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES  
(AND LOCAL HEALTH DEPARTMENTS)

Arthur C. Knight, M.D., Director  
John W. Bartlett, Deputy Director

Due to its broad spectrum of activities, programs and responsibilities, many units of Health and Environmental Sciences can be expected to respond to an emergency such as the PCB incident. Internal coordination, communication, and cooperation among the more than 20 divisions, bureaus and units always are critical to successfully meeting public health emergencies. Since assignments were extremely diverse within the agency, reports are included from each of the units having major responsibilities.

Among public health concerns faced by the department were:

locating and testing eggs and poultry and other food products which might have been contaminated; attempting to determine the health risks of the incident both to the general public and to the workers who came in contact with contaminated material at the packing plant; and supervising the disposal of contaminated products.

Food and Consumer Safety (F&CS) Bureau staff provided guidance to local health departments throughout the incident. Staff members also collected samples of foods which might have contained contaminated eggs, and were involved in interpreting laboratory analyses. Approximately 700 telephone calls were made to producers to report and interpret laboratory results. The F&CS Bureau was involved in the follow-up of contaminated products, coordination of disposing of contaminated products, and checking on products being marketed that had not been sampled.

The Preventive Health Services Bureau and our state epidemiologist, after a comprehensive research of the literature and consultation with national health officials, issued a public statement as to the



Department's official position on PCB and health effects. Basically, the statement indicated that, while with the ingestion of very large amounts of PCBs on a daily basis, the risk of toxic effect is extremely high, there should be no anticipated adverse effects with the consumption of foodstuffs, such as poultry and eggs, which have concentrations somewhat over the allowable tolerances. Eating food contaminated at the levels being found in Montana during the incident would not produce adverse toxic effects, but would add to the body's accumulation of PCB.

Assessment of the health status of the workers at the plant was accomplished by the PHS Bureau, with the assistance of CDC staff. Sixteen male employees, who worked in the contaminated operation area (full-time or part-time) were examined, interviewed, and had blood specimens taken. Sixteen controls were randomly selected from other areas of the plant and examined. Results demonstrated no defects which would be related to PCB exposure in the physical examination, history of symptoms, or blood chemistries. Several months later the CDC toxicology laboratory reported that none of the exposed and only one of the controls had a PCB level above normal. It was concluded that no worker at the plant had been significantly exposed to PCB as a result of the accident.

The Chemistry Laboratory Bureau was contacted late in September to ascertain whether it could assume some of the analytical workload. The CLB had the necessary equipment and supplies. A chemist was assigned to the PCB project and was trained and certified to analyze PCBs in chicken fat and eggs.

Since October a total of 171 egg samples (including 1 sample each of quail and duck eggs) and 5 fat samples have been analyzed. Of these, 28.1 percent have exceeded the FDA and USDA allowable limits of 0.3 parts per million PCB in eggs and 3.0 parts per million PCB in

chicken fat.

The Solid Waste Management Bureau, working with local health departments and the Environmental Protection Agency, was involved in the coordination of disposal of contaminated foods, feed and livestock and in the maintenance of records on destruction/disposal.

The SWMB informed all local health departments of the legal constraints pertaining to PCB disposal and requested that DHES be kept informed of their activities with respect to arranging and witnessing disposal in their jurisdictions. One hundred sixty-nine disposal actions involving 114 different feed companies and livestock producers have been verified. SWMB staff witnessed 8 disposal actions; most of the rest have been verified by local sanitarians.

SWMB records indicated that the following products have had to be destroyed:

Eggs	448,811 doz. + 2,880 lb.
Chickens	289,971 + 83 pkg. frozen chicken parts
Turkeys	149
Ducks	347
Swine	5,970
Feed & Meal	714,260 lb.

Local health department sanitarians were provided information on methods of disposal. They relayed this information to the producers and provided assistance in witnessing and documenting disposal of contaminated eggs, poultry and swine. If licensed landfills were not available, they obtained information on soils, etc., to assist with location of alternate disposal areas that would not create problems in the future.

The activities of the Legal Division included identifying legal jurisdiction between the federal government and the state government;

identifying legal jurisdiction among the several state agencies with statutes affecting the situation; coordinating the legal activities among state and federal agencies; informing/counseling department personnel, other state agency personnel, governor's office personnel, federal agency personnel, and staff of the federal-state coordinator's office in Washington, D.C.; researching and preparing for possible commencement of suits; and responding to inquiries and requests from attorneys of affected private parties.

The Public Information Unit did not become involved until after both FDA and USDA had been providing information to the media. State agency directors then agreed to coordinate press releases through the PIU and to issue joint releases when appropriate. The PIU worked not only with the state agencies in preparing and distributing news releases, but also with the Environmental Protection Agency. PIU also was involved in screening and referring telephone calls from producers, governmental agencies, retailers and consumers, and in the preparation of numerous reports about the incident.

#### SUBSEQUENT ACTION

The PCB incident pointed out the need for expanding food surveillance, especially in the area of trace organic contaminants. A Trace Organics Food Screening Program was proposed to continue PCB residue monitoring and screen other foods for trace residues of pesticides, excessive preservatives, contamination from chemicals used in packagings, and other toxic materials. This proposal has been funded through FY 81. A chemist for the program has been hired. A high-pressure liquid chromatograph and accessories to automate our gas chromatograph (thus increasing sample output) are being purchased, and preliminary discussions with FDA and USDA regarding assistance and food screening needs and priorities have begun.

The establishment of the new screening program enables DHES to be better prepared to deal immediately with the almost-inevitable next crisis and possibly even to make the initial discovery in our laboratory, thereby preventing the widespread contamination which was so costly in the PCB incident.

STATE DEPARTMENT OF LIVESTOCK

James W. Glosser, D.V.M., M.P.H.

The Department of Livestock first learned of the PCB problem in Idaho on September 11, 1979, during a telephone conversation with the Idaho State Veterinarian. At that time, it was speculated that Montana might be the principal state involved, since the source of the contaminated meat meal at Ritewood Farms was alleged to be the Pierce Packing Company, Billings.

At the September 18 meeting of FDA and state agencies, FDA requested that the Department of Livestock provide assistance in the investigation with regard to swine. Department personnel were immediately placed on standby and, after proper instruction, were deployed with specific duties. Initially, personnel were assigned to FDA and the State Department of Agriculture to assist in the initial sampling and investigational stages. Seventeen inspectors and supporting staff positions participated in the investigation. They worked approximately 2350 hours and travelled 2828 miles statewide.

As the investigation progressed and new information was gathered and released to the press by FDA, consumers became increasingly concerned as to the health risks that might result from consuming Montana eggs, poultry and pork products. Informal consumer boycotts on Montana products within and outside the state created serious financial hardship since major retail stores removed most, if not all, eggs from Montana producers until the eggs could be certified as being safe. In addition, out-of-state slaughtering establishments discontinued buying Montana butcher hogs. The slaughtering establishments stated that they would not buy Montana slaughter hogs until the State of Montana could certify that the swine had not been fed any PCB contaminated feed, since they did

not want to encounter retained carcasses that must await laboratory analyses in their establishments.

The Department of Livestock made numerous inquiries to USDA, FSQS personnel to determine if such a certification program was acceptable. On September 25, the state agencies met with FDA and FSQS personnel to inquire if FSQS would accept a state managed certification program. Questions also were asked to determine what USDA's PCB tolerance for hogs would be and what sample size would be required for laboratory testing of hogs suspected of having been fed PCB contaminated feed. None of these questions were answered at that meeting. Therefore, the Department, with the assistance of the Montana Congressional Delegation was finally given assurance on September 28 by the FSQS that their inspectors would accept Montana's certification, thus alleviating the need for extensive sampling. The initial phase of the certification process was aimed at those producers who could certify that their swine had not been fed any contaminated feed. The criteria were as follows:

"Commercial pork and poultry producers wishing to qualify for certification must provide the Department of Livestock with:

- 1) Legible photo copies of receipts or other documents of purchase showing the source of all meat meal, protein concentrates, and finished feed, purchased, delivered or fed since June 15,1979.
- 2) Statement that no other commercial feed was fed to pigs or chickens.
- 3) Statement of number of pigs and chickens fed and the amount of feed used.
- 4) Statement of number of pigs and chickens on inventory to be marketed in the next six months. This certification applies only to those animals on inventory.

5) A sworn statement that all information submitted is true, accurate and complete, and in the event that the submitted information is not true, accurate and complete the applicant will assume all liability."

The state agencies were advised by FDA state-federal coordinator that the Interagency Regulatory Liaison Group (IRLG) established the PCB violative levels for poultry at 3.0 ppm. He assumed the level for hogs would be the same. However, he could not be certain since the initial directive did not include hogs. Since USDA was uncertain as to the questions of sample size and tolerance level for condemnation, USDA FSQS agreed to send a special staff from Washington, D.C. to Montana. They arrived on October 3. As a result of the ongoing discussions with this staff, the Department announced on October 9 that it could expand the certification process, with modifications, to those local producers who were, or may have been, affected by the purchase or use of contaminated feed. These producers were identified by feed distribution lists generated by FDA and the Montana Department of Agriculture that indicated PCB contaminated feed may have been purchased. The modifications were:

"Local Producers wishing to qualify for certification must do the following:

Pork Producers: Arrange for a representative sample by lot of current inventory to be slaughtered at a federally inspected slaughter house and an official sample analyzed by USDA.

Poultry Producers: Arrange for a representative sample by lot of current inventory to be slaughtered and an official sample analyzed by USDA.

A representative sample consists of 5 hogs per lot, or 30 birds per lot. A lot is a group of animals or birds in one pen feeding



from common feeders. These arrangements must be made between producers and slaughtering establishments.

If the samples prove negative for PCB as conducted in a USDA approved laboratory, the producer is eligible to apply for certification by providing to the Department of Livestock the information as outlined above."

After certification, the hogs and poultry from the tested lots would be marketed freely with only routine sampling, which would not require retention of carcasses at slaughtering establishments.

From the producers and state's point of view, the first phase of certification (swine not fed contaminated feed) went as smoothly as one could expect considering the vast amount of staff work required and the numerous calls received. As of June 18, 1980, the Department had certified 2,111 swine producers with an inventory of 237,418 swine. It is noteworthy that, heretofore, the number of swine producers in Montana was estimated at approximately 1,000. In addition, 81 Wyoming and 22 North Dakota swine producers also were certified. As for egg producers who had not fed contaminated feed, the Department certified 22 flocks producing approximately 201,000 eggs/week.

The problems encountered in certifying swine producers who either fed or may have fed contaminated feed was another matter. From the onset, confusion reigned for the state agencies and the producers alike because of the numerous changes made by FSQS in both sample size and violative levels. For example, the sample size was raised from 5 to 6 hogs within the week. Also, the producer was told initially that contamination of swine would result if an individual animal had 3.0 ppm or more in the fat sample. However, the FSQS staff then developed a

statistical model employing a composite sample method for a single producer and then expanded it for two producers. The violative level varied depending on the number of hogs/lot which would afford a 95 percent probability that one or more hogs would contain levels of 3.0 ppm or greater. Using the various methods, 47 swine herds with inventories ranging from 2 to 1,013 hogs/herd were condemned and ultimately destroyed. The total number of hogs destroyed was 5,970 with a mean of 129 hogs/herd. As of February 15, the Department had certified 167 swine producers suspected of feeding contaminated feed, with an inventory of 41,033 hogs. In an attempt to define the impact that the PCB problem had on the swine producer, on February 20 the Department sent a five-part questionnaire to the 167 swine producers with an inventory of 41,033 swine who were certified, but were regarded as "suspect" herds, i.e., they fed feeds which may or may not have contained PCB. This group was surveyed since it was the most severely impacted, and the above evidence bore out that their product, for the most part, was free of the residue once the final laboratory results were available. To date, 111 of the 167 responses have been received (with no followup) resulting in a 67 percent response. In brief, the responses to some of the questions were as follows:

How were you notified of the problem and its progress? 106 responses:

- 1) Private business (packer, buyer, feed dealer) 35 percent;
- 2) State agency 25 percent; 3) News media 17 percent; 4) Other (word of mouth; county agent; neighbor) 13 percent; and 5) Federal agency 10 percent.

How much time was required from sampling until you knew laboratory results from carcass collection? 101 responses:

1) 15-30 days 50 percent; 2) 7-14 days 35 percent; 3) Over 30 days, (a high of 42 days) 12 percent; and 4) Less than 7 days 4 percent.

Did you agree as to how the program was handled? 1) Critical of the program: 45 percent, 2) No comment 45 percent; and 3) Concur with the program 10 percent.

General comments mentioned or emphasized were:

1. Too many agencies involved, caused confusion.
2. Unreasonable inconvenience or delay.
3. No good single source of information.
4. Financial loss.
5. Inconsistencies and nonresponsiveness of personnel.

Subsequent to the time the survey was initiated, an additional 16 "suspect" herds have been certified bringing the total herds to 183 with 42,851 swine.

Central to the problem of the "suspect" and condemned herds is the question of quarantine and indemnification. With respect to quarantine authority, the Department of Livestock has the authority to quarantine animals at the farm and at any point in the marketing chain within the state. However, Montana's quarantine authority requires that some solution to the problem must be available for quarantine release. If not, indemnification of the owner, due to destruction of personal property is clearly provided for in the statutes. Therefore, the Department did not quarantine any flock or herd involved in the PCB problem, since it was impossible for the federal agencies to provide the state with solutions other than destruction to serve as the basis for release. The uncertainties and indecisions, coupled with the lack of indemnity

funds, made it impossible for anyone to properly inform the industry as to what was in store for them.

During the PCB incident, the Department's routine programmatic activities were severely curtailed. Significant time and monies were expended to assist in the PCB incident. The Department's investigational, informational and certification efforts resulted in the expenditure of \$33,945, none of which was budgeted for this purpose. How these funds will be replaced is unknown at this time.

## PROBLEMS

Several major problems were cited by one or more of the state agencies involved, including:

- initial lack of coordination and communication between federal agencies and between the two levels of agencies involved, federal and state, resulting in confusion and lack of direction;
- lack of immediately available information as to the actual health risk involved with respect to PCB;
- lack of resources--manpower, laboratories, data processing--to respond adequately to the emergency;
- lack of organized, concerned, coordinated public information effort;
- legal questions concerning such items as jurisdictional issues, embargo/detention procedures, disposal of toxic materials, indemnification;
- economic losses to producers and others having PCB contaminated products--millions of dollars were involved;
- informal consumer boycotts on Montana products within and outside the state created serious financial hardship for Montana producers. Slaughtering establishments would not buy Montana slaughter hogs until the State of Montana could certify that the swine had not been fed any PCB contaminated feed, not wanting to retain carcasses that must await laboratory analyses.

State agencies were not notified by federal agencies of the problem until it had already been identified by the press. State agencies attempted on their own to learn the magnitude and severity of the contamination problem.

This situation, coupled with the lack of information about the actual health effects resulting from PCB contamination, combined to create a situation wherein state agencies were helpless as they attempted to

delineate fact from rumor and to inform Montanans about the contamination.

It was one week after the rumored date that federal agencies had information about the spill before state agencies were briefed on the situation on September 18. State agencies having legislative responsibilities for protecting public health were not provided with crucial information about the problem other than what agency staff were able to garner from sensationalized media accounts.

State agencies initially were not aware of who was in charge of doing what with respect to the emergency. There was no central coordinator, no individual with the responsibility for directing the effort.

There was not an emergency response plan in operation during the incident that provided directives to all federal and state agencies involved. No one was really in charge.

Part of the problem with the response to the PCB emergency, on both the federal level and state level, was that the people and agencies involved did not perceive this situation as belonging to the group of emergency situations that would call into play their existing hazardous materials contingency plans. Montana does have in effect (and has had since 1977) an emergency response plan addressing hazardous materials emergencies. The plan addresses lead agencies, agency coordination, various agency responsibilities and capabilities, and public information. However, since this incident involved a non-typical "spill" situation, the response plan was not activated in the usual manner. This speaks to the need for a more comprehensive plan, a full-time state emergency response coordinator, and a better understanding by department administrators and the Governor's Office of the state's emergency response procedures and plans. The Disaster and Emergency Services Division of the Department of Military Affairs should be involved in any meetings or discussions involving emergency response planning.

No thought was given initially to coordinating public information activities between federal and state agencies. Information provided to the press by federal agencies confused both producers and customers. At first, several agencies were trying to provide information, and much of it was conflicting. The press made constant reference to the cancer-causing properties of PCB. Information was not immediately available as to the actual health risk associated with the consumption of PCB contaminated products and resulted in the press presenting an overdramatized and sensationalized version of the problem (especially as reflected in headlines) and resulted in a public lack of confidence in the efforts of the federal agencies.

Laboratory reports were unfamiliar to many people, and there was considerable difficulty for both involved agencies and producers in interpreting the results. Occasionally, various federal/state field employees were duplicating sampling efforts, thus complicating and often confusing producers and laboratory analysis efforts. Requests for laboratory analyses overwhelmed the available resources. Delays in getting results sometimes made it difficult to determine if contaminated eggs were off the market.

Problems were encountered in certifying swine producers who either fed or may have fed contaminated feed. From the onset, confusion reigned for the state agencies and the producers alike because of the numerous changes made by USDA, FSQS, in both sample size and violative levels. For example, the sample size was raised from 5 to 6 hogs within the week. Also, the producer was told initially that contamination of swine would result if an individual animal had 3.0 ppm or more in the fat sample. However, the USDA, FSQS staff then developed a statistical model employing a composite sample method for a single producer and then expanded it for two producers. The violative level varied depending on the number of



hogs/lot which would afford a 95 percent probability that one or more hogs would contain levels of 3.0 ppm or greater.

## RECOMMENDATIONS

Prevention of incidents similar to the PCB experience must be the goal of all businesses, individuals and agencies involved with toxic substances. It is imperative that federal, state and local agencies, businesses, producers, and the general public increase their concern about and surveillance of toxic substances. With respect to PCB, all federally inspected meat and poultry slaughter, processing and distribution plants should be inventoried for the presence of equipment containing PCB. It also is imperative that federal agencies notify all holders of PCB and equipment containing PCB of potential hazards. Basic to this action would be first identifying for the public which equipment currently contains the chemical. People could do much more to prevent "incidents" if they know of the chemical's presence.

While prevention is the goal, preparedness to handle a toxic substance emergency must be the status quo. Without exception, the three state agencies involved in the PCB incident cited the need for the development of a new or the activation of a currently existing state interagency toxic substances response team. State agencies also recommend the establishment of a regional federal interagency toxic substances response team.

A state interagency response team should consist of a coordinator, a legal advisor, an appraiser, a laboratory coordinator, a transport officer, an epidemiologist, and a media coordinator.

The state coordinator would be responsible for developing or refining the emergency response plan, coordinating emergency activities with the federal coordinator, assessing each potential toxic substance emergency incident, directing all state toxic substance emergency response team efforts, establishing with the emergency response plan the notification network to include all appropriate agencies and individuals, providing

training sessions, evaluating response to all toxic substance emergencies, and establishing between state and federal teams who has jurisdiction between the state and the federal government over each specific toxic substance and each specific source/activity within the state.

Federal, state and local agencies need to be informed about the potential health risks of toxic substances. Federal regulatory agencies must make research data available to those who are charged with protecting public health.

A system needs to be developed to handle large volumes of data, including laboratory analyses. The system must be capable of providing accurate data to agencies, producers and the public. The laboratory coordinator needs a list of available laboratories, their analytical capabilities, and available manpower-analytical capacity, plus authority to quickly authorize the laboratories to provide assistance.

Standard reporting forms must be used to eliminate confusion with respect to sample collections and laboratory results.

Federal agencies should use state operated and privately owned laboratories, not only for investigational, but also for monitoring purposes. Federal agencies should approve non-federal laboratories to conduct monitoring and investigational phases of potential chemical contamination incidents. In conjunction with this approval, there should be an ongoing certification program conducted by the federal government so laboratories will be immediately available for use when needed.

Whenever a toxic substance emergency occurs, it is imperative that correct, complete information be distributed to the public in a timely, concise manner in language which can be understood by a non-scientific, non-technical community, and that the public information activities be the responsibility of the media coordinator.

A reciprocal relationship exists whereby the federal government should be able to use the funds of taxpayers to replace monies spent to protect those taxpayers. Economics was an integral part of the PCB incident and should be addressed.

Condemnation powers should be a responsibility of the federal government. The states would be hard pressed to condemn because of fear of financial liabilities in case of resulting litigation.

Quarantine rights should be held by individual states. Decisions that are so important to local economies and markets should not be made at a federal level.

RESPONSE TO UNITED STATES DEPARTMENT OF AGRICULTURE, FOOD  
SAFETY AND QUALITY SERVICES REPORT OF INCIDENT

In January 1980, the Food Safety and Quality Services, United States Department of Agriculture issued the Report on the PCB Incident in the Western United States.

The document contains statements critical of decisions made and actions taken by the State of Montana. This final portion of the Position Paper offers statements in rebuttal to the FSQS comments, with reference to specific pages and paragraphs of the cited report.

The FSQS contended throughout their report that the investigation and cleanup efforts were hampered because of their lack of authority to quarantine suspect herds and the lack of mandatory identification authority. It is our position that FSQS has oversimplified or exaggerated the condition as outlined in their report.

(a) Page 50, paragraph 2: A quarantine could not have allowed for a more orderly cleanup process since the FSQS would have the same problems in sampling and condemnation, whether they know it or not. The FSQS alludes to the possibility that suspected livestock owners could have sold out of state at distant markets to avoid the sampling problem. This statement evidences the agency's lack of knowledge as to the marketing options available to Montana hog producers. Since the Montana swine industry is relatively small, the only economically available markets are Pierce, Billings, and the two plants in Washington (Hygrade and Cudahay).

Both of the out-of-state plants refused to buy hogs until they were certified. Because Montana is relatively isolated, the hog producers could not have

circumvented the sampling plan by shipping to distant plants without an organized and coordinated plan for mixed consignments of butcher hogs. This was not the case.

(b) Page 51, point 2: That is an inappropriate statement since the hogs, by FSQS directive, had to be sampled sometime before they were slaughtered. Point 5: Ignores the certification phase entirely. Paragraph 6: If the "comprehensive distribution lists" are referring to the certification lists, they were made available in a timely fashion. Subsequent to certifying new producers, a cumulative list was sent to the FSQS area office in Butte, hog buying stations, Montana auction markets and the slaughtering establishments (Pierce, Hygrade and Cudahay) on a daily basis in most instances. The only exception to this were those initial days when the applications were so numerous as to preclude the department from preparing both the individual certifications and the lists on the same day. This statement is ironic, since a most heated exchange occurred between the Department of Livestock and FSQS field personnel objecting to the department issuing two copies of the individual certifications, and they could not distinguish between the original and the copy.

(c) Distribution lists, Page 60, paragraph 3: "Some of the more detailed distribution information is now being used i.e., . . . . to certify remaining animals as "clean". This procedure has caused FSQS to prepare 4 "final" lists for the department to use in completing the certification process since December 1979. The names

were generated by the FSQS area office, based on farm investigation performed by their field personnel. Upon receipt of the first "final" list, the department cross-checked the list with the certification list and sent a letter requesting that application for certification be made to expedite the process. Over 23 percent were returned due to insufficient addresses (57 of 245 mailed). Two more "final" lists were received, one was only an alphabetized list of the other, and the last final list included names of persons already certified. The following comments are pertinent to the use of FSQS's final lists:

1. FSQS "Final" lists and Certification
  - a. Redundancy of "Certified" herds on revised lists.
  - b. Use of proper "given" name (producer and spouse).
  - c. Spelling of names.
  - d. Absence of address for contact (telephone directories, county assessors', and brand records were checked).
  - e. Insufficient address for delivery of mail (approximately 245 were mailed out and 57 returned because of insufficient addresses).
  - f. Indefinite criteria for terminating certification requirements for sale.
  - g. Varying uses for data caused varying methods of compiling it.
  - h. Vacillation on sample size came to "haunt" program and delayed certification of some producers, nullified others.
  - i. Wording of report poor.
  - j. Arbitrary use of nonviolative PCB levels i.e., "may" have problems in additional swine. Poor wording of "acceptable" reports.
  - k. Prolonged to include obviously uninvolved swine.



1. Later instructions superseded certification in some cases.
2. Carcass lab results:
  - a. Sporadic and incomplete forwarding.
  - b. Inconsistent distribution.
  - c. Time element.
  - d. Poor legibility.

(d) Page 74, Legislative Problems, lines 6, 7, 8:

"The time it took to locate the original owner of the contaminated sample was also considerably longer than it might have been." This is not the case, as the involved owners were identified quite early, since they could not obtain certification. There is no magical method of identifying affected owners without a large number of "gumshoe" investigations, such as the FDA-directed phase of this problem. This statement suggests that FSQS is much more comfortable operating in a routine manner than on an emergency basis.

(e) Page 109, Legislative, paragraph 2: We believe the result would have been opposite to their conclusions, for the reason stated in the preceding section. Had quarantines been issued on suspected herds, it would have allowed more procrastination on the part of FSQS. The lack of quarantines in this instance forced FSQS into testing and making decisions rather than the normal rate usually encountered in the bureaucratic procedure.

(f) Sampling, Page 120, paragraph one: "A sample taken on a farm or feedlot is often far more useful in locating the source of contamination." This may be true if the contamination source is unknown, however,

in this instance the source was known and FDA had already identified the distribution points. The net effect of farm sampling versus plant sampling causes an immense increase of regulatory personnel and paperwork to sample at this level. The lower down the chain that information is sought, the larger the number of personnel that will be required to gather the information.

The administrative and clerical costs of certifications are significant. To date, a total of \$15,204 has been expended; of this, 21 percent is reflected in dealing with the four "final" lists.



