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1991-01-19

HIGHWAY TRAFFIC ACT

O. Reg. 1/91.

Stop Signs in Territory Without Municipal Organization.
Made—December 20th, 1990.
Filed—January 2nd, 1991.

REGULATION TO AMEND ONTARIO REGULATION 574/81 MADE UNDER THE HIGHWAY TRAFFIC ACT

1. Ontario Regulation 574/81 is amended by adding the following Schedule:

Schedule 93

1. The roadway known as Paddy Lake Road in the Unorganized Municipality of Secord in the Territorial District of Sudbury at its intersection with the roadway known as Horseshoe Lake Road.

2. Eastbound on Paddy Lake Road. O. Reg. 1/91, s. 1.

ED PHILIP
Minister of Transportation

Dated at Toronto, this 20th day of December, 1990.

3/91

HIGHWAY TRAFFIC ACT

O. Reg. 2/91.

Speed Limits.
Made—December 20th, 1990.
Filed—January 2nd, 1991.

REGULATION TO AMEND REGULATION 490 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE HIGHWAY TRAFFIC ACT

1.—(1) Paragraphs 1 and 17 of Part 3 of Schedule 1 to Regulation 490 of Revised Regulations of Ontario, 1980 are revoked and the following substituted:

Essex—
Twp. of Rochester
1. That part of the King's Highway known as No. 2 in the Township of Rochester in the County of Essex lying between a point situate 290 metres measured westerly from its intersection with the centre line of the west junction of the roadway known as Essex County Road 31 in the hamlet of St. Joachim and a point situate 100 metres measured westerly from its intersection with the centre line of the bridge over Duck Creek.

Essex—
Twps. of Maidstone and Sandwich South
17. That part of the King's Highway known as No. 2 in the County of Essex lying between a point situate 190 metres measured westerly from its intersection with the centre line of the roadway known as West Puce River Road in the hamlet of Puce in the Township of Maidstone and a point situate at its intersection with the westerly limit of the roadway known as Banwell Road in the Township of Sandwich South.

(2) Paragraph 34 of Part 3 of Schedule 1 to the Regulation, as made by section 1 of Ontario Regulation 693/83, is revoked and the following substituted:

Kent and Essex—
Town of Tilbury
Twp. of Rochester
34. That part of the King's Highway known as No. 2 lying between a point situate 40 metres measured easterly from its intersection with the centre line of the bridge over Tremblay Creek in the Town of Tilbury in the County of Kent and a point situate 115 metres measured easterly from its intersection with the centre line of the bridge over the Ruscom River in the hamlet of St. Joachim in the Township of Rochester in the County of Essex.

(3) Paragraph 20 of Part 4 of Schedule 1 to the Regulation is revoked.

(4) Paragraphs 1 and 23 of Part 5 of Schedule 1 to the Regulation are revoked and the following substituted:

Essex—
Twp. of Rochester
1. That part of the King's Highway known as No. 2 in the hamlet of St. Joachim in the Township of Rochester in the County of Essex lying between a point situate 115 metres measured easterly from its intersection with the centre line of the bridge over the Ruscom River and a point situate 290 metres measured westerly from its intersection with the centre line of the west junction of the roadway known as Essex County Road 31.

Essex—
Twp. of Maidstone
Town of Belle River
23. That part of the King's Highway known as No. 2 in the Township of Maidstone in the County of Essex lying between a point situate 540 metres measured westerly from its intersection with the centre line of the bridge over the Belle River in the Town of Belle River and a point situate at 190 metres measured westerly from its intersection with the centre line of the roadway known as West Puce River Road in the hamlet of Puce.

2.—(1) Paragraph 13 of Part 3 of Schedule 5 to the Regulation is revoked and the following substituted:

Grey—
Twps. of Holland and Sullivan
City of Owen Sound
13. That part of the King's Highway known as No. 6 and 10 in the County of Grey lying between a point situate 935 metres measured northerly from its intersection with the centre line of the roadways known as Massie Road in the Township of Holland and Sullivan Township Road 1 in the Township of Sullivan and a point situate 472 metres measured southerly from its intersection with the centre line of the roadway known as Fourth Street East in the City of Owen Sound.

(2) Paragraph 10 of Part 4 of Schedule 5 to the Regulation is revoked and the following substituted:

- Grey—
Twps. of Holland and Sullivan
10. That part of the King's Highway known as No. 6 and 10 in the townships of Holland and Sullivan beginning at a point situate 610 metres measured northerly from its intersection with the centre line of the roadways known as Massie Road in the Township of Holland and Sullivan Township Road 1 in the Township of Sullivan and extending northerly for a distance of 325 metres.

(3) Part 6 of Schedule 5 to the Regulation, as amended by section 3 of Ontario Regulation 374/84 and section 2 of Ontario Regulation 320/86, is further amended by adding the following paragraph:

- Grey—
Twps. of Holland and Sullivan
5. That part of the King's Highway known as No. 6 and 10 in the Village of Chatsworth in the townships of Holland and Sullivan in the County of Grey beginning at a point situate at its intersection with the centre line of the roadways known as Massie Road in the Township of Holland and Sullivan Township Road 1 in the Township of Sullivan and extending northerly for a distance of 610 metres.

3.—(1) Paragraphs 7, 8 and 10 of Part 3 of Schedule 12 to Regulation are revoked and the following substituted:

- Grey—
Twps. of Artemesia and Holland
7. That part of the King's Highway known as No. 10 in the County of Grey lying between a point situate 30 metres measured northerly from its intersection with the boundary line between lots 94 and 95 in concessions 1 east and west in the Township of Artemesia and a point situate 442 metres measured southerly from its intersection with the centre line of the roadway known as Holland Township Road 60 in the Township of Holland.

- Grey—
Twp. of Holland
8. That part of the King's Highway known as No. 10 in the Township of Holland in the County of Grey lying between a point situate 458 metres measured northerly from its intersection with the centre line of the roadway known as Holland Township Road 60 and a point situate 61 metres measured southerly from its intersection with the boundary line between lots 32 and 33 in concessions 1 east and west.

- Grey—
Twps. of Holland
City of Owen Sound
10. That part of the King's Highway known as No. 6 and 10 in the County of Grey lying between a point situate 935 metres measured northerly from its intersection with the centre line of the roadways known as Massie Road in the Township of Holland and Sullivan Township Road 1 in the Township of Sullivan and a point situate 472 metres measured southerly from its intersection with the centre line of the roadway known as Fourth Street East in the City of Owen Sound.

(2) Paragraphs 8 and 10 of Part 4 of Schedule 12 to the Regulation are revoked and the following substituted:

- Grey—
Twps. of Holland and Sullivan
10. That part of the King's Highway known as No. 6 and 10 in the townships of Holland and Sullivan in the County of Grey beginning at a point situate 610 metres measured northerly from its intersection with the centre line of the roadways known as Massie Road in the Township of Holland and Sullivan Township Road 1 in the Township of Sullivan and extending northerly for a distance of 325 metres.

(3) Part 5 of Schedule 12 to the Regulation, as amended by section 2 of Ontario Regulation 693/83, section 5 of Ontario Regulation 374/84 and section 2 of Ontario Regulation 687/84, is further amended by adding the following paragraph:

- Grey—
Twp. of Holland
10. That part of the King's Highway known as No. 10 in the Township of Holland in the County of Grey beginning at a point situate 442 metres measured southerly from its intersection with the centre line of the roadway known as Holland Township Road 60 and extending northerly for a distance of 900 metres.

(4) Part 6 of Schedule 12 to the Regulation, as amended by section 2 of Ontario Regulation 693/83 and section 2 of Ontario Regulation 687/84, is further amended by adding the following paragraph:

- Grey—
Twps. of Holland and Sullivan
4. That part of the King's Highway known as No. 6 and 10 in the Village of Chatsworth in the townships of Holland and Sullivan in the County of Grey beginning at a point situate at its intersection with the centre line of the roadways known as Massie Road in the Township of Holland and Sullivan Township Road 1 in the Township of Sullivan and extending northerly for a distance of 610 metres.

4.—(1) Paragraph 2 of Part 3 of Schedule 36 to the Regulation is revoked and the following substituted:

- Simcoe—
Twps. of Vespra and Nottawasaga
2. That part of the King's Highway known as No. 2 and 27 in the County of Simcoe lying between a point situate 995 metres measured southerly from its intersection with the centre line of the roadway known as Carson Road in the Township of Vespra and a point situate 610 metres measured easterly from its intersection with the westerly limit of the road allowance between concessions 1 and 2 in the Township of Nottawasaga.

(2) Paragraph 5 of Part 4 of Schedule 36 to the Regulation is revoked and the following substituted:

- Simcoe—
Twp. of Vespra
5. That part of the King's Highway known as No. 2 and 27 in the Township of Vespra in the County of Simcoe beginning at a point situate 995 metres measured southerly from its intersection with the centre line of the roadway known as Carson Road and extending southerly for a distance of 450 metres.

5.—(1) Paragraph 3 of Part 3 of Schedule 37 to the Regulation is revoked and the following substituted:

- Simcoe—
Twps. of Vespra and Nottawasaga
3. That part of the King's Highway known as No. 2 and 27 in the County of Simcoe lying between a point situate 995 metres measured southerly from its intersection with the centre line of the roadway known as Carson Road in the Township of Vespra and a point situate 610 metres measured easterly from its intersection with the westerly limit of the road allowance between concessions 1 and 2 in the Township of Nottawasaga.

(2) Paragraph 5 of Part 4 of Schedule 37 to the Regulation is revoked and the following substituted:

- Simcoe—
Twp. of Vespra
5. That part of the King's Highway known as No. 2 and 27 in the Township of Vespra in the County of Simcoe beginning at a point situate 995 metres measured southerly from its intersection with the centre line of the roadway known as Carson Road and extending southerly for a distance of 450 metres.

ED PHILLIPS
Minister of Transportation

Dated at Toronto, this 20th day of December, 1990.

Publications under the Regulations Act Publications en vertu de la Loi sur les règlements

1991—01—26

PLANNING ACT, 1983

O. Reg. 3/91.

Restricted Areas—District of Sudbury, Territorial District of Sudbury.

Made—December 20th, 1990.

Filed—January 10th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 834/81 MADE UNDER THE PLANNING ACT, 1983

1. Schedule 1 to Ontario Regulation 834/81 is amended by adding the following section:

101.—(1) Despite subsection 22 (1), a building for selling fruits and vegetables may be erected and used on the land described in subsection (2), if the following requirements are met:

Maximum ground floor area 65 square metres

Maximum building height 9 metres

(2) Subsection (1) applies to that parcel of land in the geographic Township of Dill in the Territorial District of Sudbury being part of Lot 6 in Concession III, designated as Part 1 on Reference Plan 53R-12868 deposited in the Land Registry Office for the Land Titles Division of Sudbury (No. 53). O. Reg. 3/91, s. 1.

PETER W. BOLES
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 20th day of December, 1990.

4/91

HIGHWAY TRAFFIC ACT

O. Reg. 4/91.

Speed Limits.

Made—January 7th, 1991.

Filed—January 11th, 1991.

REGULATION TO AMEND REGULATION 490 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE HIGHWAY TRAFFIC ACT

1.—(1) Paragraphs 2, 3, 4, 5, 6, 7 and 16 of Part 3 of Schedule I to Regulation 490 of Revised Regulations of Ontario, 1980 are revoked and the following substituted:

- Kent—

City of Chatham

Town of Tilbury

2. That part of the King's Highway known as No. 2 in the County of Kent lying between a point situate 590 metres measured westerly from its intersection with the centre line of the roadway known as Bloomfield Sideroad in the City of Chatham and a point situate 40 metres measured easterly from its intersection with the centre line of the roadway known as Tilbury Street in the Town of Tilbury.
- Kent—

Twp. of Chatham

3. That part of the King's Highway known as No. 2 in the Township of Chatham in the County of Kent lying between a point situate 365 metres measured westerly from its intersection with the centre line of the roadway known as Kent County Road No. 15 in the hamlet of Kent Bridge and a point situate 335 metres measured easterly from its intersection with the centre line of the roadway known as Arkwood Road in the hamlet of Louisville.
- Kent—

Twp. of Camden

Village of Thamesville

4. That part of the King's Highway known as No. 2 in the Township of Camden in the County of Kent lying between a point situate 700 metres measured westerly from its intersection with the centre line of the roadway known as Priscilla Street in the Village of Thamesville and a point situate 185 metres measured easterly from its intersection with the centre line of the roadway known as Kent County Road No. 15 in the hamlet of Kent Bridge.
- Middlesex—

Village of Wardsville

Kent—

Village of Thamesville

5. That part of the King's Highway known as No. 2 lying between a point situate 360 metres measured westerly from its intersection with the centre line of the roadway known as Middlesex County Road No. 1 (Hagarty Street) in the Village of Wardsville in the County of Middlesex and a point situate 805 metres measured easterly from its intersection with the centre line of the Canadian National Railway right-of-way in the Village of Thamesville in the County of Kent.
- Middlesex—

Villages of Melbourne and Wardsville

6. That part of the King's Highway known as No. 2 lying between a point situate 915 metres measured westerly from its intersection with the centre line of the roadway known as Middlesex County Road No. 9 (Union Street) in the Village of Melbourne and a point situate 150 metres measured easterly from its intersection with the centre line of the roadway known as Mill Lane in the Village of Wardsville.
- Middlesex—

Twp. of Caradoc

Village of Melbourne

7. That part of the King's Highway known as No. 2 in the Township of Caradoc in the County of Middlesex lying between a point situate 115 metres measured westerly from its intersection with the centre line of the King's Highway known as No. 81 and a point situate 420 metres measured easterly from its intersection with the centre line of the roadway known as Middlesex County Road No. 9 (Union Street) in the Village of Melbourne.
- Oxford and Middlesex—

City of London

16. That part of the King's Highway known as No. 2 lying between a point situate 165 metres measured easterly from its intersection with the centre line of the roadway known as Banner Road in the hamlet of Thamesford in the County of Oxford and a point

situate at its intersection with the centre line of the roadway known as Middlesex County Road No. 25 (Crumlin Road) in the City of London in the County of Middlesex.

(2) Part 3 of Schedule 1 is amended by adding the following paragraphs:

37. That part of the King's Highway known as No. 2 in the Township of Chatham in the County of Kent lying between a point situate 520 metres measured westerly from its intersection with the centre line of the roadway known as James Street in the hamlet of Louisville and a point situate 1135 metres measured easterly from its intersection with the centre line of the roadway known as Kent County Road No. 30 (Prince Albert Road).
38. That part of the King's Highway known as No. 2 in the County of Middlesex lying between a point situate 130 metres measured westerly from its intersection with the centre line of the bridge over Dingman Creek in the Town of Westminster and a point situate 100 metres measured easterly from its intersection with the centre line of the roadway known as Victoria Street in the Village of Delaware.
39. That part of the King's Highway known as No. 2 in the County of Middlesex lying between a point situate 605 metres measured easterly from its intersection with the centre line of the roadway known as Campbell Street in the Town of Westminster and a point situate at its intersection with the centre line of the roadway known as Southdale Road in the City of London.
40. That part of the King's Highway known as No. 2 in the County of Oxford lying between a point situate 22 metres measured easterly from its intersection with the centre line of the bridge over the Thames River in the City of Woodstock and a point situate 380 metres measured easterly from its intersection with the centre line of the east junction of the King's Highway known as No. 19 in the hamlet of Thamesford.

(3) Clauses (a) and (b) of Paragraph 1 of Part 4 of Schedule 1 are revoked and the following substituted:

- (a) beginning at a point situate 165 metres measured easterly from its intersection with the centre line of the Canadian National Railway right-of-way in the Village of Thamesville and extending easterly for a distance of 640 metres; and
- (b) beginning at a point situate 700 metres measured westerly from its intersection with the centre line of the roadway known as Priscilla Street in the Village of Thamesville and extending easterly for a distance of 385 metres.

(4) Paragraph 14 of Part 4 of Schedule 1, as remade by section 1 of Ontario Regulation 280/83, is revoked and the following substituted:

14. That part of the King's Highway known as No. 2 in the Township of Raleigh in the County of Kent beginning at a point situate 85 metres measured westerly from its intersection with the centre line of the roadway known as Bloomfield Sideroad in the City of Chatham and extending westerly for a distance of 505 metres.

(5) Paragraphs 22, 26 and 27 of Part 5 of Schedule 1 are revoked and the following substituted:

22. That part of the King's Highway known as No. 2 in the hamlet of Louisville in the Township of Chatham in the County of Kent lying between a point situate 335 metres measured easterly from its intersection with the centre line of the roadway known as Arkwood Road and a point situate 520 metres measured westerly from its intersection with the centre line of the roadway known as James Street.
26. That part of the King's Highway known as No. 2 in the Village of Delaware in the County of Middlesex beginning at a point situate 100 metres measured easterly from its intersection with the centre line of the roadway known as Victoria Street and extending westerly for a distance of 600 metres.
27. That part of the King's Highway known as No. 2 in the County of Middlesex beginning at a point situate 115 metres measured westerly from its intersection with the centre line of the King's Highway known as No. 81 in the Township of Caradoc and extending easterly for a distance of 615 metres.

(6) Paragraph 29 of Part 5 of Schedule 1, as remade by section 1 of Ontario Regulation 21/89, is revoked and the following substituted:

29. That part of the King's Highway known as No. 2 in the Township of Chatham in the County of Kent lying between a point situate 1135 metres measured easterly from its intersection with the centre line of the roadway known as Kent County Road No. 30 (Prince Albert Road) and a point situate 10 metres measured easterly from its intersection with the centre line of the roadway known as Michener Road in the City of Chatham.

(7) Paragraph 31 of Part 5 of Schedule 1 is revoked and the following substituted:

31. That part of the King's Highway known as No. 2 in the Town of Westminster in the County of Middlesex beginning at a point situate 175 metres measured easterly from its intersection with the centre line of the roadway known as Campbell Street and extending easterly for a distance of 430 metres.

(8) Paragraphs 3, 4, 5, 6 and 8 of Part 6 of Schedule 1 are revoked and the following substituted:

4. That part of the King's Highway known as No. 2 in the hamlet of Kent Bridge in the Township of Chatham in the County of Kent beginning at a point situate 185 metres measured easterly from its intersection with the centre line of the roadway known as Kent County Road No. 15 and extending westerly for a distance of 550 metres.
5. That part of the King's Highway known as No. 2 in the Town of Westminster in the County of Middlesex lying between a point situate 175 metres measured easterly from its intersection with the centre line of the roadway known as Campbell Street and a point situate 130 metres measured westerly from its intersection with the centre line of the bridge over Dingman Creek.
6. That part of the King's Highway known as No. 2 in the hamlet of Thamesford in the Township of Zorra in the County of Oxford lying between a point situate 380 metres measured easterly from its intersection with the centre line of the east junction of the King's

Highway known as No. 19 and a point situate 160 metres measured easterly from its intersection with the centre line of the roadway known as Banner Road.

- Middlesex—
Village of Wardsville
8. That part of the King's Highway known as No. 2 in the Village of Wardsville in the County of Middlesex lying between a point situate 150 metres measured easterly from its intersection with the centre line of the roadway known as Mill Lane and a point situate 360 metres measured westerly from its intersection with the centre line of the roadway known as Middlesex County Road No. 1 (Hagarty Street).

(9) Part 6 of Schedule 1 is amended by adding the following paragraphs:

- Middlesex—
Village of Melbourne
21. That part of the King's Highway known as No. 2 in the Village of Melbourne in the County of Middlesex beginning at a point situate 420 metres measured easterly from its intersection with the centre line of the roadway known as Middlesex County Road No. 9 (Union Street) and extending westerly for a distance of 1335 metres.
- Middlesex—
Village of Delaware
22. That part of the King's Highway known as No. 2 in the Village of Delaware in County of Middlesex beginning at a point situate 360 metres measured easterly from its intersection with the centre line of the roadway known as Dundas Street and extending westerly for a distance of 540 metres.

2.—(1) Paragraph 1 of Part 5 of Schedule 8 to the Regulation, as remade by section 1 of Ontario Regulation 382/85, is revoked and the following substituted:

- Victoria—
Twp. of Manvers
1. That part of the King's Highway known as No. 7A in the Township of Manvers in the County of Victoria beginning at a point situate 500 metres measured westerly from its intersection with the westerly limit of the roadway known as Victoria County Road No. 38 and extending westerly for a distance of 350 metres.

(2) Part 5 of Schedule 8, as remade by section 1 of Ontario Regulation 382/85, is amended by adding the following paragraph:

- Victoria—
Twp. of Manvers
4. That part of the King's Highway known as No. 7A in the Township of Manvers in the County of Victoria beginning at a point situate 300 metres measured easterly from its intersection with the westerly limit of the roadway known as Victoria County Road No. 38 and extending easterly for a distance of 400 metres.

(3) Part 6 of Schedule 8, as remade by section 1 of Ontario Regulation 382/85, is amended by adding the following paragraph:

- Victoria—
Twp. of Manvers
2. That part of the King's Highway known as No. 7A in the Township of Manvers in the County of Victoria lying between a point situate 500 metres measured westerly from its intersection with the westerly limit of the roadway known as Victoria County Road No. 38 and a point situate 300 metres measured easterly from that intersection.

3. Paragraph 10 of Part 4 of Schedule 30 to the Regulation, as remade by section 3 of Ontario Regulation 623/90, is revoked and the following substituted:

- Kent—
Twp. of Camden
10. That part of the King's Highway known as No. 21 in the Gore of the Township of Camden in the County of Kent lying between a point situate 23 metres measured northerly from its intersection with the centre line of the structure over the river known as Cruickshank Creek and a point situate 5 metres measured northerly from its intersection with the centre line of the roadway known as Kent County Road No. 23.

4. Paragraph 1 of Part 5 of Schedule 129 to the Regulation, as remade by section 9 of Ontario Regulation 800/82, is revoked and the following substituted:

- District Municipality of Muskoka—
Twp. of Muskoka Lakes
1. That part of the King's Highway known as No. 169 in the Township of Muskoka Lakes in The District Municipality of Muskoka lying between a point situate 60 metres measured northerly from its intersection with the northerly limit of the roadway known as Burgess Avenue and a point situate 70 metres measured northerly from its intersection with the centre line of the roadway known as Trafalgar Bay Road.

ED PHILIP
Minister of Transportation

Dated at Toronto, this 7th day of January, 1991.

4/91

Publications under the Regulations Act

Publications en vertu de la Loi sur les règlements

1991—02—02

LAND REGISTRATION REFORM ACT, 1984

O. Reg. 5/91.

General.

Made—May 7th, 1990.

Filed—January 14th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 580/84 MADE UNDER THE LAND REGISTRATION REFORM ACT, 1984

1. Subsection 1 (2) of Ontario Regulation 580/84 is amended by adding the following paragraph:

27. All those condominiums in the City of Scarborough (originally the Township of Scarborough) numbered as follows:

YORK CONDOMINIUM PLAN NUMBERS

038	039	044	045	048	049	073
079	083	088	091	092	093	094
095	103	109	113	115	120	129
142	162	170	185	189	225	229
251	264	298	307	308	314	337
339	387	391	393	400	403	406
426	439	449	460			

METROPOLITAN TORONTO CONDOMINIUM PLAN NUMBERS

541 566 693 729 761 849

5/91

WORKERS' COMPENSATION ACT

O. Reg. 6/91.

General.

Made—January 9th, 1991.

Approved—January 17th, 1991.

Filed—January 18th, 1991.

REGULATION TO AMEND REGULATION 951 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE WORKERS' COMPENSATION ACT

1. Regulation 951 of Revised Regulations of Ontario, 1980 is amended by adding the following sections:

AVERAGE EARNINGS OF APPRENTICES, LEARNERS AND STUDENTS

14.—(1) For the purpose of subsection 43 (6) of the Act, the criteria for determining the average earnings of a worker who is an apprentice, learner or full-time or part-time student are as set out in this section.

(2) The average earnings of a worker who is an apprentice shall be determined with reference to the average earnings of a journeyman employed by the employer in the same trade as that in which the worker was working when injured.

(3) The average earnings of a worker who is a learner shall be

determined with reference to the average earnings of a regular full-time worker employed by the employer in the same trade as that in which the worker was working when injured.

(4) If the employer did not employ a journeyman or a full-time worker, as the case may be, in the same trade as that in which the worker was working when injured, the average earnings of the worker shall be determined with reference to the average earnings of a journeyman or full-time worker employed in the employer's locality in the same trade.

(5) The average earnings of a worker who is a student shall be the greater of,

(a) the amount calculated under clause 43 (1) (a) of the Act; and

(b) the average earnings of a worker employed in a job that the injured worker would likely be employed in on the earlier of,

(i) the date on which the injured worker ceases to be impaired; or

(ii) the date on which the injured worker would likely have become a regular full-time worker, had the injury not occurred.

(6) A determination under clause (5) (b) shall be based upon the average industrial wage for the year in which the worker's injury occurred, and upon the worker's level of education and his or her aptitude and skills at the time of the injury.

(7) For the purpose of subsection (6), the average industrial wage for a year is the amount determined under subsection 41 (3) of the Act. O. Reg. 6/91, s. 1, *part*.

RATING SCHEDULE (Section 45 of the Act)

15. The rating schedule established for the purposes of medical assessments under section 45 of the Act is the American Medical Association *Guides to the Evaluation of Permanent Impairment* (third edition revised), as it reads on the 14th day of January, 1991. O. Reg. 6/91, s. 1, *part*.

INVESTMENT OF FUND (Section 45b of the Act)

16.—(1) The investment of amounts in the fund established under subsection 45b (10) of the Act shall be made in accordance with the procedures and restrictions set out in sections 66, 67, 68, subsection 69 (1) and sections 70, 74, 75, 77 and 78 of Ontario Regulation 708/87 made under the *Pension Benefits Act, 1987*, as those provisions read on the 14th day of January, 1991.

(2) The definitions set out in section 62 of Ontario Regulation 708/87, as it reads on the 14th day of January, 1991, apply for the purposes of subsection (1). O. Reg. 6/91, s. 1, *part*.

WORKERS' COMPENSATION BOARD:

ROBERT ELGIE
Chair

LINDA ANGORI
Secretary

Dated at Toronto, this 9th day of January, 1991.

5/91

EDUCATION ACT

O. Reg. 7/91.

Calculation of Enrolment in Part XI-A of the Act.

Made—January 17th, 1991.

Filed—January 18th, 1991.

REGULATION MADE UNDER THE
EDUCATION ACTCALCULATION OF ENROLMENT IN PART XI-A
OF THE ACT

1. In Part XI-A of the Act, the total calculated enrolment of a board shall be calculated in accordance with the following rules:

1. Determine the number of resident pupils of the board who, on the last school day of September in the year preceding the year of the next regular election, were registered on a Register of Daily Attendance for Elementary Schools of the board or another board.
2. Determine the number of resident pupils of the board who, on the last school day of September in the year preceding the year of the next regular election, were registered on an Enrolment Register for Secondary Schools (Full-time) of the board or another board.
3. Calculate, for each resident pupil of the board who, on the last school day of September in the year preceding the year of the next regular election, was registered on a Part-Time Enrolment Register of the board or another board, the following amount:

$$A = \frac{B}{C \times 300}$$

where,

A = the amount to be calculated under this rule,

B = the number recorded in respect of the pupil on the Part-Time Enrolment Register under the heading "Student Minutes During Cycle on Last School Day in Sept." (Column J),

C = the number of days in the school cycle of the school for which the Part-Time Enrolment Register is maintained.

4. Calculate, for each resident pupil of the board who, on the last school day of September in the year preceding the year of the next regular election, was registered on an Independent Study Register of the board or another board, the following amount:

$$D = \frac{E \times F}{3 \times G}$$

where,

D = the amount to be calculated under this rule,

E = the number of work units completed by the pupil during the September to December period in the year preceding the year of the next regular election, as recorded on the Independent Study Register,

F = the credit value of the course to which the Independent Study Register applies,

G = the number of work units required to complete the course to which the Independent Study Register applies.

LOI SUR L'ÉDUCATION

Règl. de l'Ont. 7/91

Calcul de l'effectif dans la partie XI-A de la Loi

pris—le 17 janvier 1991

déposé—le 18 janvier 1991

RÈGLEMENT PRIS EN APPLICATION DE LA
LOI SUR L'ÉDUCATIONCALCUL DE L'EFFECTIF DANS LA PARTIE XI-A
DE LA LOI

1 Dans la partie XI-A de la Loi, l'effectif total calculé d'un conseil est calculé conformément aux règles suivantes :

1. Déterminer le nombre d'élèves résidents du conseil qui, le dernier jour de classe du mois de septembre de l'année précédant l'année de la prochaine élection ordinaire, étaient inscrits dans un cahier de présence quotidienne des écoles élémentaires du conseil ou d'un autre conseil.
2. Déterminer le nombre d'élèves résidents du conseil qui, le dernier jour de classe du mois de septembre de l'année précédant l'année de la prochaine élection ordinaire, étaient inscrits sur un relevé des effectifs des écoles secondaires (à plein temps) du conseil ou d'un autre conseil.
3. Calculer, pour chaque élève résident du conseil qui, le dernier jour de classe du mois de septembre de l'année précédant l'année de la prochaine élection ordinaire, était inscrit sur un relevé des effectifs à temps partiel du conseil ou d'un autre conseil, le nombre suivant :

$$A = \frac{B}{C \times 300}$$

où

A = le nombre à calculer selon la présente règle

B = le chiffre consigné à l'égard de l'élève sur le relevé des effectifs à temps partiel sous la rubrique « Minutes – élèves par cycle le dernier jour d'école de septembre » (Colonne J)

C = le nombre de jours dans le cycle scolaire de l'école à l'égard duquel est tenu le relevé des effectifs à temps partiel.

4. Calculer, pour chaque élève résident du conseil qui, le dernier jour de classe du mois de septembre de l'année précédant l'année de la prochaine élection ordinaire, était inscrit sur un relevé des effectifs des études personnelles du conseil ou d'un autre conseil, le nombre suivant :

$$D = \frac{E \times F}{3 \times G}$$

où

D = le nombre à calculer selon la présente règle

E = le nombre d'unités d'étude terminées par l'élève pendant la période allant de septembre à décembre de l'année précédant l'année de la prochaine élection ordinaire, tel qu'il est consigné sur le relevé des effectifs des études personnelles

F = la valeur en crédits du cours auquel s'applique le relevé des effectifs des études personnelles

G = le nombre d'unités d'étude exigées pour obtenir le ou les crédits auxquels s'applique le relevé des effectifs des études personnelles.

5. The total calculated enrolment of the board is equal to the following amount:

$$H = I + J + K + L$$

where,

H = the total calculated enrolment of the board,

I = the amount determined under rule 1,

J = the amount determined under rule 2,

K = the sum of the amounts calculated under rule 3,

L = the sum of the amounts calculated under rule 4.
O. Reg. 7/91, s. 1.

2. In Part XI-A of the Act, the calculated enrolment of a board shall be calculated in accordance with the following rules:

1. Determine the number of resident pupils of the board who, on the last school day of September in the year preceding the year of the next regular election, were enrolled in French-language instructional units and were registered on a Register of Daily Attendance for Elementary Schools of the board or another board.

2. Determine the number of resident pupils of the board who, on the last school day of September in the year preceding the year of the next regular election, were enrolled in French-language instructional units and were registered on an Enrolment Register for Secondary Schools (Full-time) of the board or another board.

3. Calculate, for each resident pupil of the board who, on the last school day of September in the year preceding the year of the next regular election, was enrolled in a French-language instructional unit and was registered on a Part-Time Enrolment Register of the board or another board, the following amount:

$$A = \frac{B}{C \times 300}$$

where,

A = the amount to be calculated under this rule,

B = the number recorded in respect of the pupil on the Part-Time Enrolment Register under the heading "Student Minutes During Cycle on Last School Day in Sept." (Column J),

C = the number of days in the school cycle of the school for which the Part-Time Enrolment Register is maintained.

4. Calculate, for each resident pupil of the board who, on the last school day of September in the year preceding the year of the next regular election, was enrolled in a French-language instructional unit and was registered on an Independent Study Register of the board or another board, the following amount:

$$D = \frac{E \times F}{3 \times G}$$

where,

D = the amount to be calculated under this rule,

E = the number of work units completed by the pupil during the September to December period in the year preceding the year of the next regular election, as recorded on the Independent Study Register,

5. L'effectif total calculé du conseil est égal au nombre suivant :

$$H = I + J + K + L$$

où

H = l'effectif total calculé du conseil

I = le nombre déterminé selon la règle 1

J = le nombre déterminé selon la règle 2

K = la somme des nombres calculés selon la règle 3

L = la somme des nombres calculés selon la règle 4.
Règl. de l'Ont. 7/91, art. 1.

2. Dans la partie XI-A de la Loi, l'effectif calculé d'un conseil est calculé conformément aux règles suivantes :

1. Déterminer le nombre d'élèves résidents du conseil qui, le dernier jour de classe du mois de septembre de l'année précédant l'année de la prochaine élection ordinaire, étaient inscrits dans un module scolaire de langue française et étaient inscrits dans un cahier de présence quotidienne des écoles élémentaires du conseil ou d'un autre conseil.

2. Déterminer le nombre d'élèves résidents du conseil qui, le dernier jour de classe du mois de septembre de l'année précédant l'année de la prochaine élection ordinaire, étaient inscrits dans un module scolaire de langue française et étaient inscrits sur un relevé des effectifs des écoles secondaires (à plein temps) du conseil ou d'un autre conseil.

3. Calculer, pour chaque élève résident du conseil qui, le dernier jour de classe du mois de septembre de l'année précédant l'année de la prochaine élection ordinaire, était inscrit dans un module scolaire de langue française et était inscrit sur un relevé des effectifs à temps partiel du conseil ou d'un autre conseil, le nombre suivant :

$$A = \frac{B}{C \times 300}$$

où

A = le nombre à calculer selon la présente règle

B = le chiffre consigné à l'égard de l'élève sur le relevé des effectifs à temps partiel sous la rubrique « Minutes – élèves par cycle le dernier jour d'école de septembre » (Colonne J)

C = le nombre de jours dans le cycle scolaire de l'école à l'égard duquel est tenu le relevé des effectifs à temps partiel.

4. Calculer, pour chaque élève résident du conseil qui, le dernier jour de classe du mois de septembre de l'année précédant l'année de la prochaine élection ordinaire, était inscrit dans un module scolaire de langue française et était inscrit sur un relevé des effectifs des études personnelles du conseil ou d'un autre conseil, le nombre suivant :

$$D = \frac{E \times F}{3 \times G}$$

où

D = le nombre à calculer selon la présente règle

E = le nombre d'unités d'étude terminées par l'élève pendant la période allant de septembre à décembre de l'année précédant l'année de la prochaine élection ordinaire, tel qu'il est consigné sur le relevé des effectifs des études personnelles

F = the credit value of the course to which the Independent Study Register applies,

F = la valeur en crédits du cours auquel s'applique le relevé des effectifs des études personnelles

G = the number of work units required to complete the course to which the Independent Study Register applies.

G = le nombre d'unités d'étude exigées pour obtenir le ou les crédits auxquels s'applique le relevé des effectifs des études personnelles.

5. The calculated enrolment of the board is equal to the following amount:

5. L'effectif calculé du conseil est égal au nombre suivant :

H = I + J + K + L

H = I + J + K + L

where,

où

H = the calculated enrolment of the board,

H = l'effectif calculé du conseil

I = the amount determined under rule 1,

I = le nombre déterminé selon la règle 1

J = the amount determined under rule 2,

J = le nombre déterminé selon la règle 2

K = the sum of the amounts calculated under rule 3,

K = la somme des nombres calculés selon la règle 3

L = the sum of the amounts calculated under rule 4.
O. Reg. 7/91, s. 2.

L = la somme des nombres calculés selon la règle 4.
Règl. de l'Ont. 7/91, art. 2.

5/91

CORRECTION

O. Reg. 653/90 under the *Education Act* published December 29th, 1990.

Subsection 1 (1) of Ontario Regulation 653/90, as set out below,

1.—(1) Schedule 1 to Ontario Regulation 724/89 is amended by striking out,

.

should have read as follows:

1.—(1) Schedule 1 to section 2 of Ontario Regulation 724/89 is amended by striking out,

.

Subsection 2 (1) of Ontario Regulation 653/90, as set out below,

2.—(1) Schedule 3 to the Regulation is amended by striking out,

.

should have read as follows:

2.—(1) Schedule 3 to section 6 of the Regulation is amended by striking out,

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5/91

Publications under the Regulations Act Publications en vertu de la Loi sur les règlements

1991—02—09

NURSING HOMES ACT

O. Reg. 8/91.

General.

Made—January 21st, 1991.

Filed—January 21st, 1991.

REGULATION TO AMEND REGULATION 690 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE NURSING HOMES ACT

1. Item 42 of Table 1 of Regulation 690 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 570/90, is revoked and the following substituted:

42. On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	\$740.02	\$24.33
43. On or after the 1st day of February, 1991.	\$747.71	\$24.58

6/91

HEALTH INSURANCE ACT

O. Reg. 9/91.

General.

Made—January 21st, 1991.

Filed—January 21st, 1991.

REGULATION TO AMEND REGULATION 452 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE HEALTH INSURANCE ACT

1. Item 23 of Table 1B of Regulation 452 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 569/90, is revoked and the following substituted:

23. On or after the 1st day of November, 1990, but before the 1st day of February, 1991. . . .	740.02	24.33	1,099.20	36.14	1,839.22	60.47
24. On or after the 1st day of February, 1991. . . .	747.71	24.58	1,091.51	35.89	1,839.22	60.47

2. Items 7zo, 13zo, 19zo, 25zo, 31zo and 78 of Table 2 of the Regulation, as made by section 2 of Ontario Regulation 569/90, are revoked and the following substituted:

7zo. On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	Person with no dependants – maximum estimated income \$840.02	Estimated income less \$100.00	Estimated income less \$100.00, divided by 30.4
7zp. On or after the 1st day of February, 1991.	Person with no dependants – maximum estimated income \$847.71	Estimated income less \$100.00	Estimated income less \$100.00, divided by 30.4

13zo.	On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	Person with one dependant – maximum aggregate estimated incomes \$4,700.00	Aggregated estimated incomes less \$2,480.00, divided by 3	Aggregate estimated incomes less \$2,480.00, divided by 91.2
13zp.	On or after the 1st day of February, 1991.	Person with one dependant – maximum aggregate estimated incomes \$4,723.00	Aggregate estimated incomes less \$2,480.00, divided by 3	Aggregate estimated incomes less \$2,480.00, divided by 91.2
19zo.	On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	Person with two dependants – maximum aggregate estimated incomes \$5,055.00	Aggregate estimated incomes less \$2,835.00, divided by 3	Aggregate estimated incomes less \$2,835.00, divided by 91.2
19zp.	On or after the 1st day of February, 1991.	Person with two dependants – maximum aggregate estimated incomes \$5,078.00	Aggregate estimated incomes less \$2,835.00, divided by 3	Aggregate estimated incomes less \$2,835.00, divided by 91.2
25zo.	On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	Person with three dependants – maximum aggregate estimated incomes \$5,377.00	Aggregate estimated incomes less \$3,157.00, divided by 3	Aggregate estimated incomes less \$3,157.00, divided by 91.2
25zp.	On or after the 1st day of February, 1991.	Person with three dependants – maximum aggregate estimated incomes \$5,400.00	Aggregate estimated incomes less \$3,157.00, divided by 3	Aggregate estimated incomes less \$3,157.00, divided by 91.2
31zo.	On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	Person with four or more dependants – maximum aggregate estimated incomes \$5,666.00	Aggregate estimated incomes less \$3,446.00, divided by 3	Aggregate estimated incomes less \$3,446.00, divided by 91.2
31zp.	On or after the 1st day of February, 1991.	Person with four or more dependants – maximum aggregate estimated incomes \$5,689.00	Aggregate estimated incomes less \$3,446.00, divided by 3	Aggregate estimated incomes less \$3,446.00, divided by 91.2
78.	On or after the 1st day of November, 1990, but before the 1st day of February, 1991.	Person not referred to in Items 1 – 31 zo	\$740.02	\$24.33
79.	On or after the 1st day of February, 1991.	Person not referred to in Items 1 – 31 zp	\$747.71	\$24.58

6/91

CORRECTION

O. Reg. 680/90 under the *Family Benefits Act* published January 5th, 1991.

“\$839” which appeared in the sixth line of subsection 3 (1) of Ontario Regulation 680/90 should have read “\$838”.

6/91

POWER CORPORATION ACT

O. Reg. 10/91.

Electrical Safety Code.

Made—October 15th, 1990.

Approved—January 21st, 1991.

Filed—January 22nd, 1991.

ONTARIO REGULATION 10/91

under the Power Corporation Act

ELECTRICAL SAFETY CODE

SECTION 0—INTERPRETATION

0-002 In this Code:

1. "acceptable" means not presenting an undue hazard to persons or property under the circumstances;
2. "accessible" when applied to wiring methods means that the wiring is not permanently closed in by the structure or finish of a building and is capable of being removed without disturbing the building structure or finish;
3. "accessible" when applied to electrical equipment means that the equipment may be closely approached because it is not guarded by locked doors, elevation, or other effective means;
4. "adapter" means an electrical device designed to adapt one configuration of a receptacle to another;
5. "alive" or "live" means electrically connected to a source of potential difference, or electrically charged so as to have a potential different from that of the earth; and in this Code "current-carrying" has the same meaning where the intention is clear;
6. "aluminum-sheathed cable" means a cable consisting of one or more conductors of approved type assembled into a core and covered with a liquid- and gas-tight sheath of aluminum or aluminum alloy;
7. "ampacity" means current-carrying capacity of electric conductors expressed in amperes;
8. "approved" means authorized or approved in accordance with the Code;
9. "authorized person" means a qualified person who by the nature of his or her duties or occupation is obliged to approach or handle electrical equipment, or a person who, having been warned of the hazards involved, has been instructed or authorized to do so by someone having authority to give the instruction or authorization;
10. "auxiliary gutter" means a raceway consisting of a sheet metal enclosure used to supplement the wiring space of electrical equipment and to enclose interconnecting conductors;
11. "AWG" means the American (or Brown and Sharpe) wire gauge as applied to non-ferrous conductors and non-ferrous sheet metal;
12. "boat" means any ship or vessel, except a seaplane, used or designed to be used in navigation;
13. "bonding" means a low impedance path obtained by permanently joining all non-current-carrying metal parts to assure electrical continuity and having the capacity to conduct safely any current likely to be imposed on it;
14. "Bonding conductor" means a conductor that connects the non-current-carrying parts of electrical equipment, raceways or enclosures to the service equipment or the system grounding conductor;
15. "branch circuit" means that part of a circuit extending beyond the final overcurrent devices in the circuit;
16. "building" means a structure that stands alone or which is cut off from adjoining structures by unpierced fire-walls or by openings protected by approved fire-doors;
17. "bus" means a conductor which serves as a common connection for the corresponding conductors of two or more circuits;
18. "busway" means a raceway consisting of a system of metal troughing, including its elbows, tees, crosses and straight runs, containing conductors supported on insulators;
19. "cabinet" means an enclosure of adequate mechanical strength, composed entirely of noncombustible and absorption-resistant material, designed either for surface or flush mounting and provided with a frame, mat, or trim, in which swinging doors are hung;
20. "cable tray" means a raceway consisting of metal tray and fittings therefor, so formed and constructed that insulated conductors and cables may be readily installed or removed after the cable tray has been completely installed, without injury either to conductors or their covering, and,
 - (a) "ladder cable tray" means a cable tray with openings exceeding 50 millimetres in a longitudinal direction;

- (b) "non-ventilated cable tray" means a cable tray in which there are no ventilating openings in the bottom or sides;
- (c) "ventilated cable tray" means a cable tray having adequate ventilating openings with no opening exceeding 50 millimetres in a longitudinal direction;
21. "cell" means one of the hollow spaces, suitable for use as a raceway, of a cellular metal or cellular concrete floor, the axis of the cell being parallel to the longitudinal axis of the floor members;
22. "cellular floor" means an assembly of metal or concrete floor members containing cells;
23. "circuit-breaker" means an electro-mechanical device designed to automatically open a current-carrying circuit on a pre-determined over-current, under both overload and short-circuit conditions without injury to the device;
24. "combustible construction" as applied to a building means that type of construction in which the structural elements are constructed wholly or partly of wood members which do not meet the requirements for heavy timber (mill type) construction and may include noncombustible as well as combustible elements;
25. "communication circuit" means a circuit which is part of a communication system;
26. "communication system" means an electrical system whereby voice, sound or data may be received and/or transmitted, including telephone, telegraph, data communications, intercommunications, paging, wired music, community antenna distribution and other systems of similar nature, but does not include alarm systems such as fire, smoke or intrusion alarm systems or radio and television communication or closed circuit television equipment;
27. "concealed" means rendered permanently inaccessible by the structure or finish of a building;
28. "conductor" means a wire, cable or other form of metal installed for the purpose of conveying electric current from one piece of electrical equipment to another or to ground;
29. "conduit" means a raceway of circular cross-section into which it is intended that conductors be drawn and includes rigid conduit (metallic and non-metallic) and flexible conduit, and,
- (a) "rigid conduit" means a rigid conduit of metallic or non-metallic material;
- (b) "rigid RE conduit" means a rigid non-metallic conduit of fibreglass reinforced thermoset epoxy resin suitable for direct burial or encasement in concrete;
- (c) "rigid HFT conduit" means a rigid non-metallic conduit of halogen-free plastic;
- (d) "rigid metal conduit" means a rigid conduit of metallic material made the same dimensions as standard pipe and suitable for threading with standard pipe threads;
- (e) "rigid non-metallic conduit" means a rigid conduit of non-metallic material that is not permitted to be threaded;
- (f) "rigid PVC conduit" means a rigid non-metallic conduit of unplasticized polyvinyl chloride;
- (g) "rigid Type DB2/ES2 PVC conduit" means a rigid non-metallic conduit of PVC for direct burial or encasement in concrete or masonry;
- (h) "rigid Type EB1 PVC conduit" means a rigid non-metallic conduit of PVC for encasement in concrete or masonry;
- (i) "rigid Type I non-metallic conduit" means a rigid non-metallic conduit of bituminized fibre or asbestos cement requiring encasement in concrete;
- (j) "rigid Type II non-metallic conduit" means a rigid non-metallic conduit of bituminized fibre or asbestos cement of heavier construction than Type I and therefore not requiring encasement in concrete;
- (k) "Flexible metal conduit" means a metal conduit which may be easily bent without the use of tools;
- (l) "Liquid-tight flexible conduit" means:
- (i) A flexible metal conduit having an outer liquid-tight jacket; or
- (ii) A flexible liquid-tight nonmetallic conduit;
30. "connection authorization" means written permission by the inspection department to a supply authority, or any other person or corporation, to supply electric energy to a particular electrical installation;
31. "connector",
- (a) "box connector" means a device for securing a cable, via its sheath or armour,

- where it enters an enclosure such as an outlet box;
- (b) "wire connector" means a device which connects two or more conductors together or one or more conductors to a terminal point for the purpose of connecting electrical circuits;
32. "contractor" means any person who as principal, servant or agent, by himself or herself or by associates, employees, servants or agents performs or engages to perform either for his or her own use and benefit or for that of another and for or without remuneration or gain any work with respect to any electrical installation or any other work to which this Code applies;
33. "control circuit" means the circuit that carries the electric signals directing the performance of a control device, but does not carry the power that the device controls;
34. "controller" means a device or a group of devices for controlling in some predetermined manner the electric power delivered to the apparatus to which it is connected;
35. "cord set" means a length of flexible cord or power supply cable with an attachment plug connected to one end of it and a cord connector connected to its other end;
36. "cutout box" means an enclosure of adequate mechanical strength, composed entirely of noncombustible and absorption-resistant material, designed for surface mounting and having swinging doors or covers secured directly to, and telescoping with, the walls of the box proper;
37. "dead" when applied to electrical equipment means that the current-carrying electrical equipment is free from any electrical connection to a source of potential difference and from electrical charge or has not a potential different from that of earth;
38. "dead front" when applied to electrical equipment means that the electrical equipment is so constructed that all live parts, except the wells for plug fuses in panelboards and in enclosed branch-circuit cut-outs, are enclosed in such manner as to be inaccessible;
39. "different systems" means systems which derive their energy from different transformers or from different banks of transformers or from different generators or other sources;
40. "disconnecting means" means a device, group of devices, or other means whereby the conductors of a circuit can be disconnected from their source of supply;
41. "dust-tight" means an enclosure constructed so that dust cannot enter it;
42. "duty" means a requirement of service that specifies the degree of regularity of the load; and,
- (a) "continuous duty" means a requirement of service that demands operation at a substantially constant load for an indefinitely long time;
- (b) "short time duty" means a requirement of service that demands operation at a substantially constant load for a short and definitely specified time;
- (c) "intermittent duty" means a requirement of service that demands operation for definitely specified alternate intervals of,
- (i) load and no load,
- (ii) load and rest, or
- (iii) load, no load and rest;
- (d) "periodic duty" means a type of intermittent duty in which the load conditions are regularly recurrent;
- (e) "varying duty" means a requirement of service that demands operation at loads and for intervals of time, both of which may be subject to wide variation;
43. "dwelling unit" means one or more rooms for the use of one or more persons as a housekeeping unit with cooking, eating, living, and sleeping facilities;
44. "electric elevator" means an elevator in which the motion of the car or platform is obtained through an electric motor applied directly to the elevator machinery;
45. "electrical equipment" means any apparatus, appliance, device, instrument, fitting, fixture, machinery, material or thing used in or for, or capable of being used in or for, the generation, transformation, transmission, distribution, supply, or utilization of electric power or energy, and without restricting the generality of the foregoing, includes any assemblage or combination of materials or things which is used, or is capable of being used, or adapted to serve or perform any particular purpose or function when connected to an electrical installation, notwithstanding that any of such materials or things are mechanical, metallic or non-metallic in origin;
46. "electrical installation" means a system or part of a system of wiring installed or to be installed in or upon any land, building or premises from the point or points of delivery of electrical power or energy therein or thereon, up to the point or points where the power or energy can be

- consumed or used therein or thereon by any electrical equipment, and the expressions "work on an electrical installation" or "make an electrical installation" include the installation, maintenance, alteration, extension and repair of the wiring and the connection of the wiring with any of the electrical equipment or with any other part of the wiring system;
47. "electrical metallic tubing" means a metal raceway into which it is intended that conductors shall be drawn, and which has a circular cross-section, a wall thinner than that of rigid metal conduit and an outside diameter sufficiently different from that of rigid conduit to render it impracticable for threading it with standard pipe-thread;
 48. "electrical non-metallic tubing" means a pliable non-metallic corrugated raceway having a circular cross-section;
 49. "electrical room" means a room that is intended for the exclusive installation of electrical equipment;
 50. "elevator" means a hoisting and lowering mechanism equipped with a car or platform which moves in guides in a substantially vertical direction but not including tiering-machines or piling-machines which operate within one storey, or endless belts, conveyors, chains, buckets or similar devices used for the purpose of elevating materials;
 51. "elevator machinery" means the machinery and its equipment used in raising and lowering the elevator car or platform;
 52. "emergency and exit lights" means all lights required by law for the purpose of facilitating safe exit in case of fire or other emergency;
 53. "explosion proof" means enclosed in a case that is capable of withstanding without damage an explosion that may occur within it of a specified gas or vapour and which is also capable of preventing the ignition of a specified gas or vapour surrounding the enclosure from sparks, flashes or explosion of the specified gas or vapour within the enclosure;
 54. "exposed" as applied to live parts means that a live part can be inadvertently touched or approached more closely than is safe by any person and the term is applied to parts not suitably guarded, isolated or insulated;
 55. "exposed" as applied to wiring methods means not concealed;
 56. "extra-low-voltage power circuit" means a circuit, such as valve operator and similar circuits, which is neither a remote control circuit nor a signal circuit, but which operates at not more than 30 volts and which is supplied from a transformer or other device restricted in its rated output to 1,000 volt-amperes and approved for the purpose, but in which the current is not limited in accordance with the requirements for a Class 2 circuit;
 57. "feeder" means a conductor or group of conductors which transmits electrical energy from a service supply, transformer, switchboard, distribution centre, generator or other source of supply to branch-circuit overcurrent devices;
 58. "fire resisting" as applied to buildings means constructed of masonry, reinforced concrete or equivalent materials in accordance with the requirements of the fire underwriters;
 59. "flammable" means capable of being easily set on fire;
 60. "flexible tubing" means flexible non-metallic tubing commonly known as loom for the mechanical protection of insulated wires;
 61. "ground" means a connection to earth of electrical equipment by means of a grounding electrode;
 62. "ground fault circuit interrupter" means a device which will interrupt, within a predetermined time, the electrical circuit to the load when a current to ground exceeds some predetermined value that is less than that required to operate the overcurrent protective device of the supply circuit;
 63. "grounding" means a permanent and continuous conductive path to the earth with sufficient ampacity to carry any fault current liable to be imposed on it, and of a sufficiently low impedance to limit the voltage rise above ground and to facilitate the operation of the protective devices in the circuit;
 64. "grounding conductor" means the conductor used to connect the service equipment or system to the grounding electrode;
 65. "grounding electrode" means,
 - (a) a metallic water piping system; or
 - (b) a metal object or device, buried in, or driven into, the earth so as to make intimate contact therewith, to which a grounding conductor is electrically and mechanically connected;
 66. "grounded" means connected effectually with the general mass of the earth through a grounding path of sufficiently low impedance and having current-carrying capacity sufficient at all times, under the most severe conditions which are likely to arise in prac-

tice, to prevent any current in the grounding conductor from causing a harmful voltage to exist:

- (a) between the grounding conductors and neighboring exposed conducting surfaces which are in good contact with the earth; or
 - (b) between the grounding conductors and neighboring surfaces of the earth itself;
67. "grounding system" means all conductors, clamps, ground clips, ground plates or pipes, and ground electrodes by means of which electrical equipment or an electrical installation is grounded;
68. "guarded" when applied to electrical equipment means that the electrical equipment is so covered, shielded, fenced, enclosed or otherwise protected by means of suitable covers, casings, barriers, rails, screens, mats or platforms as to remove the likelihood of dangerous contact or approach by persons or objects;
69. "header" means a transverse raceway for electrical conductors providing access to predetermined cells of a cellular metal or concrete floor permitting the installation of conductors from a distribution centre to the cells;
70. "hoistway" means a shaftway, hatchway, well hole or other vertical opening or space in which an elevator, escalator or dumbwaiter operates or is intended to operate;
71. "identified",
- (a) when applied to a conductor means that the conductor has,
 - (i) a white or natural grey covering; or
 - (ii) a raised longitudinal ridge or ridges on the surface of the extruded covering on certain flexible cords,
 either of which indicates that the conductor is either a grounded conductor or a neutral, and,
 - (b) when applied to other electrical equipment means that the terminals to which grounded or neutral conductors are to be connected have been distinguished for identification by being tinned, nickel plated or otherwise suitably marked;
72. "inaccessible" when applied to a room or compartment means that the room or compartment is sufficiently remote from access or so placed or guarded that unauthorized persons cannot inadvertently enter the room or compartment, and when applied to electrical equipment means that the electrical equipment is covered by the structure or finish of

the building in which it is installed or maintained or is sufficiently remote from access or so placed or guarded that unauthorized persons cannot inadvertently touch or interfere with the equipment;

73. "industrial establishment" means a building or part of a building in which any manufacturing process, assembling or handling of materials in connection with the manufacturing, preparing, treating or finishing of any goods or products, is carried on;
74. "inspection department" means Ontario Hydro;
75. "inspector" means any person duly appointed by the inspection department for the purpose of enforcing this Code;
76. "insulated" means separated from other conducting surfaces by a dielectric material or air space having a degree of resistance to the passage of current and to disruptive discharge sufficiently high for the condition of use;
77. "insulating" as applied to non-conducting substances means that they are capable of bringing about the condition defined as insulated;
78. "intrinsically safe", as applied to electrical equipment or electrical installation, means that any spark or thermal effect that may occur in normal use, or under any conditions of fault likely to occur in practice, is incapable of causing an ignition of the flammable gas, vapour, or dust which may be present;
79. "lampholder" means a device constructed for the mechanical support of lamps and for connecting them to circuit conductors;
80. "lighting fixture raceway" means a raceway which may or may not be a part of a lighting fixture and which is designed to support or suspend the lighting fixture or to hold conductors supplying power to the lighting fixture;
81. "location",
- (a) "ordinary location" means a dry location in which at normal atmospheric pressure and under normal conditions of use, electrical equipment is not unduly exposed to injury from mechanical causes, excessive dust, moisture or extreme temperatures, and in which electrical equipment is entirely free from the possibility of injury through corrosive, flammable or explosive atmospheres;
 - (b) "damp location" means a location which is normally or periodically subject to

- condensation of moisture in, on or adjacent to electrical equipment;
- (c) "dry location" means a location where electrical equipment is installed that is not normally or periodically a damp location but may be a location subject to temporary dampness in the case of a building under construction, provided ventilation is adequate to prevent an accumulation of moisture;
- (d) "wet location" means a location in which liquids may drip, splash or flow on or against electrical equipment;
- (e) "hazardous location" means premises, buildings or parts thereof in which there exists the hazard of fire or explosion because,
- (i) highly flammable gases, flammable volatile liquids, mixtures or other highly flammable substances are manufactured or used or are stored in other than original containers,
 - (ii) combustible dust or flyings are likely to be present in quantities sufficient to produce an explosive or combustible mixture, or where it is impracticable to prevent such dust or flyings from being deposited upon incandescent lamps or from collecting in or upon motors or other electrical equipment in such quantities as to produce overheating by reason of the prevention of normal radiation,
 - (iii) easily ignitable fibres or materials producing combustible flyings are manufactured, handled or used in a free open state, or
 - (iv) easily ignitable fibres or materials producing combustible flyings are stored in bales or containers but are not manufactured, handled or used in a free open state;
82. "low-energy power circuit" means a circuit other than a remote control or signal circuit for which the power supply is limited in accordance with the requirements for Class 2 remote control circuits;
83. "low-voltage protection" means the effect of a device operative on the reduction or failure of voltage to cause and maintain the interruption of power to the main circuit;
84. "low-voltage release" means the effect of a device operative on the reduction or failure of voltage to cause the interruption of power to the main circuit, but not to prevent its re-establishment on the return of voltage to safe operating value;
85. "machine tool, metal cutting" means a power driven device, not portable by hand, used for the purpose of removing metal in the form of chips;
86. "machine tool, metal forming" means a power driven machine not portable by hand, used to press, forge, emboss, hammer, blank or shear metals;
87. "mineral-insulated cable" means a cable having one or more bare solid conductors supported and insulated by a highly compressed refractory material enclosed in a liquid-tight and gas-tight metallic tube sheathing and the term includes both the regular type (MI) and the light-weight type (LWMI) unless otherwise qualified;
88. "mobile home" means a portable dwelling constructed to be towed on its own chassis, designed for use without a permanent foundation on a temporary or permanent basis and which has provision for connection to a supply service;
89. "mobile industrial or commercial structure" means a portable structure other than a mobile home constructed to be towed on its own chassis, designed for use without a permanent foundation on a temporary or permanent basis and which has provision for connection to a supply service;
90. "MSG" means the Manufacturer's Standard Gauge for uncoated steel;
91. "multi-outlet assembly" means a surface or flush enclosure carrying conductors for extending one 2-wire or multi-wire branch circuit to two or more receptacles of the grounding type that are attached to the enclosure;
92. "multiple section mobile unit" means a structure formed by the mechanical and electrical coupling together of two or more mobile units;
93. "multi-winding motor" means a motor having multiple windings or tapped windings, or both, designed for connection or reconnection in more than one configuration to operate at speeds and voltages respective to the configurations;
94. "multi-wire branch circuit" means a branch circuit consisting of two or more ungrounded conductors having a voltage difference between them, and an identified grounded conductor having equal voltage between it and each ungrounded conductor with the identified grounded conductor connected to the neutral conductor;
95. "neutral conductor" means that conductor of a polyphase circuit, or of a single-phase, 3-wire circuit having an approximately

- uniform potential difference and an equal spacing in phase with each of the other conductors;
96. "noncombustible construction" means that type of construction in which a degree of fire safety is attained by the use of non-combustible materials for structural members and other building assemblies;
97. "non-incendive circuit" means a circuit in which any spark or thermal effect that may occur under normal operating conditions or due to opening, shorting or grounding of field wiring, is incapable of causing an ignition of the prescribed flammable gas or vapour;
98. "non-relocatable structure" means a factory-built unit intended for use on permanent foundations;
99. "open" as applied to electrical equipment means that moving parts, windings or live parts are exposed to accidental contact;
100. "outlet" means a point in the electrical installation at which current is taken to supply utilization equipment;
101. "out-of-reach" means that equipment is located more than 1.5 metres horizontally or more than 2.5 metres vertically from any floor, platform or other surface from which it would otherwise be readily accessible;
102. "outline lighting" means an arrangement of incandescent lamps or electric discharge tubing, outlining or accentuating certain features of buildings;
103. "overcurrent device" means any device capable of automatically opening an electric circuit both under predetermined overload and short-circuit conditions, either by fusing of metal or by electro-mechanical means;
104. "overload-device" means a device affording protection from excess current but not necessarily short-circuit protection, and capable of automatically opening an electric circuit either by the fusing of metal or by electro-mechanical means;
105. "panelboard",
- (a) "panelboard" means an assembly of buses and connections, overcurrent devices and control apparatus, with or without switches, or other equipment, constructed for installation as a complete unit in a cabinet; and
- (b) "enclosed panelboard" means an assembly of buses and connections, overcurrent devices and control apparatus, with or without switches, or other equipment, installed in a cabinet;
106. "part-winding start motor" means a motor the starting of which entails the energizing of part of its primary winding as a first step and the energizing of the remainder of this winding as the next step or steps;
107. "plenum" means a chamber associated with air-handling apparatus, for distributing the processed air from the apparatus (supply plenum) to the supply ducts or for receiving air to be processed by the apparatus (return plenum);
108. "portable ground fault circuit interrupter" means a ground fault circuit interrupter that is either of the direct plug-in type or specifically designed to receive current by means of a flexible cord or cable and an attachment plug and which incorporates one or more receptacles for the connection of equipment which is provided with a flexible cord or cable and an attachment plug;
109. "portable" as applied to electrical equipment means the equipment is specifically designed not to be used in a fixed position and receives current through the medium of a flexible cord or cable, and usually an attachment plug;
110. "power supply cord" means a length of flexible cord or power supply cable with an attachment plug at one end;
111. "protected" as applied to electrical equipment means the equipment is constructed so that the electrical parts are protected against damage from foreign objects;
112. "qualified person" means a person familiar with the construction and operation of the apparatus and the hazards involved;
113. "raceway" means any channel for holding wires, cables or bus bars, which is designed expressly for and used solely for this purpose, and unless otherwise qualified in this Code, including rigid, flexible, metallic and non-metallic conduit, electrical metallic tubing, underfloor raceways, lighting fixture raceways, cellular floor raceways, surface raceways, wire-ways, cable trays, busways and auxiliary gutters;
114. "readily accessible" means capable of being reached quickly without climbing over or removing obstacles or resorting to portable ladders, chairs or similar aids;
115. "receptacle" means one or more female contact devices, on the same yoke, installed at an outlet for the connection of one or more attachment plugs, and,

- (a) "single receptacle" means one female contact device, with no other contact device on the same yoke, installed at an outlet for the connection of one attachment plug;
- (b) "duplex receptacle" means two female contact devices, on the same yoke, installed at an outlet for the connection of two attachment plugs;
- (c) "split receptacle" means a duplex receptacle having terminals adapted for connection to a grounded, three-wire supply, such as 120/240 volts or 120/208 volts;
116. "recreational vehicle" means a portable structure other than a mobile home intended as temporary living accommodation, including structures commonly referred to as travel trailers, motorized homes, slide-in campers, chassis-mounted campers, park model recreational vehicles and trailers, having a horizontal area of 48 square metres or less when measured at the largest horizontal projections;
117. "relocatable structure" means any factory-built building or structure intended for use without a permanent foundation;
118. "remote control circuit" means any electrical circuit which controls any other circuit through a relay or an equivalent device;
119. "repellent" used as a suffix (such as moisture-repellent) means constructed, treated or surfaced so that liquid will tend to run off, and cannot readily penetrate the surface;
120. "residential occupancy" means the occupancy or use of a building or part thereof by persons for whom sleeping accommodation is provided but who are not harboured or detained to receive medical care or treatment or are not involuntarily detained.
121. "resistant" used as a suffix means constructed, protected or treated so that it will not be injured readily when subjected to the specified material or condition;
122. "separate built-in cooking unit" means a stationary cooking appliance, including its integral supply leads or terminals, and consisting of one or more surface elements or ovens, or a combination of these, constructed so that the unit is permanently built into a counter or wall;
123. "service",
- (a) "consumer's service" means all that portion of the consumer's installation from the service box or its equivalent up to and including the point at which the supply authority makes connection;
- (b) "supply service" means any one set of conductors run by a supply authority from its mains to a consumer's service;
- (c) "service agreement" means a form of agreement prescribed or approved by the inspection department and pertaining to the labelling or re-examination of approved electrical equipment;
- (d) "service box" means an approved assembly consisting of a metal box or cabinet constructed so that it may be effectually locked or sealed, containing either service fuses and a service switch or a circuit breaker and of such design that either the switch or circuit breaker may be manually operated when the box is closed;
124. "service room" means a room or space provided in a building to accommodate building service equipment and constructed in accordance with the Ontario Building Code;
125. "shock-proof" as applied to X-ray and high-frequency equipment, means that the equipment is guarded with grounded metal so that no person can come into contact with any live part;
126. "signal circuit" means any electrical circuit, other than a communication circuit, which supplies energy to a device that gives a recognizable signal, such as circuits for doorbells, buzzers, code-calling systems, signal lights and similar devices;
127. "single dwelling" means a dwelling unit that consists of a detached house, one unit of row housing or one unit of a semi-detached, duplex, triplex or quadruplex house;
128. "slow-burning" as applied to conductor insulation means the insulation has flame-retardant properties;
129. "soldered" means a uniting of metallic surfaces by the fusion thereon of a metallic alloy, usually of lead and tin;
131. "splitter" means an enclosure containing terminal plates or bus bars having main and branch connectors;
132. "starter" means an electric controller for accelerating a motor from rest to normal speed, for stopping the motor and usually implies inclusion of overload protection;
133. "Supply Authority" means any municipal corporation, commission, company or person

- supplying electrical power or energy intended for sale or distribution to the public;
134. "surface raceway" means a raceway in the form of a channel with a backing and capping for loosely holding conductors and cables in surface wiring;
135. "switch" means a device for making, breaking or changing connection in a circuit; and
- (a) "general use switch" means a switch intended for use in general distribution and branch-circuits and which is rated in amperes and capable of interrupting its rated current at rated voltage;
- (b) "indicating switch" means a switch designed or marked to show readily whether the switch is in an "On" or "Off" position;
- (c) "isolating switch" means a switch intended for isolating a circuit or electrical equipment from the source of supply of electrical power or energy, but does not include a switch intended for establishing or interrupting the flow of current in a circuit;
- (d) "motor-circuit switch" means a fused or unfused manually-operated knife or snap switch rated in horsepower;
136. "switchboard" means a panel or assembly of panels on which is mounted any combination of switching, measuring, controlling and protective devices, buses and connections designed with a view to successfully carrying and rupturing the maximum fault current encountered when controlling incoming and outgoing feeders;
137. "theatre" means a building, or any portion thereof, which is used for public dramatic, operatic, motion-picture or other performances;
138. "thermal cut out" means a device affording protection from excessive current but not necessarily short-circuit protection, and containing a heating element in addition to, and affecting, a fusible member which opens the circuit;
139. "underfloor raceway" means a raceway suitable for use in the floor;
140. "utilization equipment" means equipment that utilizes electrical energy for mechanical, chemical, heating, lighting or a similar useful purpose;
141. "vault" means a transformer vault, or an electrical equipment vault consisting of an isolated enclosure, either above or below ground, with fire-resisting walls, ceilings and floors for the purpose of housing transformers and other electrical equipment;
142. "V amperes" with respect to an electric circuit means the mathematical product of the voltage and amperage carried thereby;
143. "voltage of a circuit" means the greatest root mean square (effective) voltage between any two conductors of the circuit concerned;
144. "voltage to ground" means the voltage between any live ungrounded part and any grounded part in the case of grounded circuits, or the greatest voltage existing in the circuit in the case of ungrounded circuits, and,
- (a) "voltage, extra low" means any voltage up to and including 30 volts;
- (b) "voltage, low" means any voltage from 31 to 750 volts inclusive;
- (c) "voltage, high" means any voltage above 750 volts;
145. "wireway" means a raceway consisting of a completely enclosed system of metal troughing, and fittings therefor, so formed and constructed that insulated conductors may be readily drawn in and withdrawn, or laid in and removed, after the system has been completely installed without injury either to conductors or their covering.

SECTION 2—ADMINISTRATION GENERAL RULES

General

2-000 Scope. This Code does not apply to:

- (1) electrical equipment and electrical installations used exclusively in the generation, transformation or transmission of electrical power or energy intended for sale or distribution to the public;
- (2) electrical equipment and electrical installations in communication systems from the transformer or other current limiting device used at the junction of the communication system with the electric circuit supplying the communication system;
- (3) electrical equipment and electrical installations in the cars, car-houses, passenger stations or freight stations used in the operation of an electric railway or electric street railway and supplied with electric current from the railway power-circuit;

- (4) electrical equipment and electrical installations in railway locomotives and railway cars and in signalling systems, communication systems, wayside train monitoring systems and track facilities including the branch circuit supplying such electrical equipment or electrical installations when such electrical equipment or electrical installation is used in the operation of a railway;
- (5) electrical equipment and electrical installations on an aircraft;
- (6) electrical equipment and electrical installations in a mine as defined in *The Mining Act* excepting any dwelling house or other building not connected with or required for mining operations or purposes or used for the treatment of ore or mineral;
- (7) electrical equipment and electrical installations on a boat of non-Canadian registry or on a boat that is required to be certified in accordance with the *Canada Shipping Act* except for such equipment and installations required to connect the electrical supply from the on shore electrical supply facility to the service box on the boat and including the service box.

2-002 Special Requirements. Sections devoted to rules governing particular types of installations are not intended to embody all rules governing these particular types of installations, but cover only those special rules which are additional to or amendatory of those prescribed in other sections covering installations under ordinary conditions.

2-004 Inspection

- (1) A contractor shall file with the inspection department a completed application for inspection of any work on an electrical installation:
 - (a) Before or within 48 hours after commencement of the work whether or not electrical power or energy has been previously supplied to the land, building or premises on which the work was performed; and
 - (b) Shall pay the fees prescribed by the inspection department.
- (2) An application for inspection which has been refused in accordance with the provisions of Rule 2-008 shall, for purposes of Subrule (1) hereof, be deemed not to be a completed application.
- (3) Subject to the provisions of Rule 2-008, payment of the fees prescribed by the inspection department entitles the contractor to one complete inspection of the installation.
- (4) Every contractor who undertakes an electrical installation is responsible for procuring its inspection by the inspection department before the installation is used for any purpose.

(5) The contractor shall give to the inspection department at least forty-eight hours' notice in writing that the work on the electrical installation has been completed and that the installation is ready for inspection, but where the work is being performed in a remote district or is not immediately accessible for any other reason, the notice shall be of such greater length as is necessary to accommodate the inspection schedule of the inspection department.

(6) The inspection shall be made at such time and in such manner as the inspection department determines.

(7) No electrical installation shall be concealed or rendered inaccessible, until it has been inspected by an inspector and found to conform to this Code.

2-006 Annual Inspection

(1) An annual application for inspection may be made by the owner or occupant of any manufacturing, mercantile or other building where electrical installation work of a routine nature in connection with the maintenance or operation of the building or the plant therein is required to be performed at frequent intervals.

(2) Acceptance of the application by the inspection department shall authorize the commencement and carrying out of such work during the year for which the acceptance is issued and Rule 2-004 does not apply.

(3) The owner or occupant shall, as the work is performed, record it on a form provided by the inspection department which shall be produced to any inspector at any time and from time to time upon request and the inspection shall be made at such time and in such manner as the inspection department determines.

2-008 Right of Refusal. The inspection department may refuse an application for inspection to any person who has failed to pay any fees or dues owing to the inspection department for a period of more than thirty days or who has failed to remedy defects in any electrical work or installation after having been notified by the inspection department that the defects exist, until the fees have been paid or the defects have been remedied.

2-010 Plans and Specifications. No contractor shall commence work on any electrical installation consisting of:

- (a) The installation of a wiring system in any public building, commercial or industrial establishment, apartment house or other building in which the public safety may be involved; or
- (b) The installation of generators, transformers, switchboards, large storage batteries and similar equipment,

or that is of special magnitude or nature without first filing with the inspection department in duplicate, or in greater number if required, complete wiring plans and specifications relating to the proposed work and

obtaining the written approval of the inspection department therefor.

2-012 Connection Authorization

(1) Where any electrical installation or part thereof to which electric power or energy has not previously been supplied is made in or upon any land, building or premises or subject to Subrule (2) hereof, where any electrical installation or part thereof has been disconnected or cut off from any service or other source of supply under this Code, no supply authority, contractor or other person shall connect or re-connect the installation or part thereof to any service or other source of supply unless:

- (a) The installation and all work in respect thereof have been inspected by an inspector; and
- (b) A connection authorization has been issued by the inspection department in respect of the installation.

(2) Where any electrical installation or part thereof has been disconnected or cut off from a source of supply by a supply authority for six months or less for non-payment of rates or because of a change of occupancy of premises, the supply authority may reconnect the installation or part thereof without obtaining a connection authorization.

2-014 Temporary Connection Authorization

(1) Notwithstanding the provisions of Rule 2-012, the inspection department may issue a temporary connection authorization authorizing a supply authority to connect its lines for a stated length of time to a temporary electrical installation or to a permanent but unfinished electrical installation and may renew the connection authorization from time to time.

(2) Issuance of a temporary connection authorization does not obligate the inspection department to issue a permanent connection authorization where a contractor has not complied with this Code.

2-016 Re-inspection. The inspection department may at any time re-inspect any electrical installation notwithstanding any previous inspection and acceptance of the installation.

2-018 Defects

(1) Every contractor who has performed work on an electrical installation and has been notified by the inspection department that the installation does not conform to this Code shall remedy all defects in work and replace all electrical equipment that is not approved within such time and in such manner as the notice from the inspection department directs.

(2) The inspection department may by notice in writing require any owner or occupant of land, buildings or premises, upon or within which is found an

electrical installation in which a condition dangerous to persons or property has developed, to make such changes in the electrical installation as are necessary to remedy the condition.

(3) Upon receipt of the notice referred to in Subrule (2) hereof, the owner or occupant of the lands, buildings or premises shall cause the installation to be changed in the manner and to the extent prescribed by the notice within the time limited therein.

(4) Where a contractor refuses or neglects to comply with a notice given under Subrule (1) hereof, or the owner or occupant of lands, buildings or premises refuses or neglects to comply with a notice given under Subrule (2) hereof, the inspection department, may disconnect the supply, or require the supply authority to disconnect the supply of electrical power or energy to the lands, buildings or premises in which is contained the electrical installation that was the subject of the notice.

(5) If the supply has been disconnected pursuant to Subrule (4) hereof, it shall not be reconnected until full compliance with the notice has been made.

2-020 Approval of Electrical Wiring in Mobile Homes, Mobile Industrial or Commercial Structures, Recreational Vehicles or any manufactured or prefabricated dwelling unit.

(1) No person shall advertise, display or offer for sale or other disposal, or sell or otherwise dispose of a Mobile Home, Mobile Industrial or Commercial Structure, Recreational Vehicle or any manufactured or prefabricated dwelling unit unless the system of electrical wiring installed therein or thereon has been approved.

(2) The system of electrical wiring referred to in Subrule (1) shall be deemed to be approved when:

- (a) A certification report has been issued by Canadian Standards Association in respect thereof;
- (b) The certification report has been adopted by the inspection department;
- (c) The manufacturer of the unit in which the system of electrical wiring is installed has entered into a service agreement with Canadian Standards Association;
- (d) The system of electrical wiring and installation thereof meet all standards of design and construction prescribed by the certification report and complies with all terms and conditions therein; and
- (e) The Canadian Standards Association certification mark is affixed to the unit.

(3) As an alternative to the requirements of Subrule (2) hereof the system of electrical wiring installed in a

recreational vehicle equipped with permanently installed appliances within the meaning of the *Energy Act*, R.S.O. 1980, Chapter 139, shall be deemed to be approved when:

- (a) A certification report has been issued by the Canadian Gas Association in respect thereof;
- (b) The certification report has been adopted by the inspection department;
- (c) The system of electrical wiring meets all the applicable standards prescribed by the certification report and Canadian Standards Association specifications relating thereto and complies with all terms and conditions in the report and the specifications;
- (d) The certification mark of the Canadian Gas Association is affixed permanently to the system of electrical wiring verifying compliance with Canadian Standards Association standards; and
- (e) The manufacturer of the recreational vehicle has entered into a service agreement with the Canadian Gas Association.

(4) If the system of electrical wiring referred to in Subrule (1) hereof cannot be approved pursuant to Subrules (2) or (3) hereof, such system of electrical wiring shall be deemed to be approved when:

- (a) The system of electrical wiring has been inspected by the inspection department and found to conform to this Code and to present no undue hazard to persons or property;
- (b) A certificate or other writing evidencing the conformity has been issued by the inspection department;
- (c) All fees payable to the inspection department in respect of the inspection and certification have been paid; and
- (d) The panelboard bears an approval label supplied by the inspection department.

2-022 Sale or Other Disposal and Use

(1) No person shall advertise, display or offer for sale or other disposal, or sell or otherwise dispose of any electrical equipment unless it has been approved in accordance with Rule 2-024.

(2) No person shall connect any electrical equipment to a source of electrical power until such electrical equipment has been approved in accordance with Rule 2-024.

(3) No person shall use any electrical equipment unless it has been approved in accordance with Rule 2-024.

(4) Where a certification report in respect of any approved electrical equipment requires that a notice indicating the proper and safe manner of use of the equipment be affixed thereto or furnished therewith, no person shall sell or otherwise dispose of the equipment without affixing or furnishing the notice in the manner required by the certification report.

2-024 Approval of Electrical Equipment

(1) Electrical equipment is approved when:

- (a) a report has been issued by the Canadian Standards Association in respect of the equipment;
- (b) the report has been adopted by the inspection department;
- (c) the equipment bears a Canadian Standard Association mark or label;
- (d) the supplier of the equipment or a user has entered into an agreement with the Canadian Standards Association; and
- (e) the equipment meets all standards of design and construction prescribed by the report and complies with all terms and conditions contained therein.

(2) As an alternative to the requirements of Subrule (1) hereof, electrical equipment consisting of an assembly or combination of component parts intended for use solely in conjunction with or as an integral part of any appliance within the meaning of the *Energy Act* shall be deemed to be approved when:

- (a) the appliance bears a label in accordance with the Regulations made under the *Energy Act*; and
- (b) the manufacturer of the equipment has entered into a service agreement with the organization whose label is placed on the equipment.

(3) As an alternative to the requirements of Subrules (1) and (2), cooking appliances, liquid and air heaters, clothes dryers, heat pumps, refrigerators, and permanently installed air conditioners which use electricity as an energy source and are of the same basic construction as functionally identical equipment using gas as an energy source shall be deemed to be approved when:

- (a) a certification report is issued by the Canadian Gas Association that the equipment meets the applicable standards relating to the equipment;
- (b) the certification report has been adopted by the inspection department;
- (c) the certification mark of the Canadian Gas Association has been affixed permanently to the equipment;

- (d) the manufacturer of the equipment has entered into a service agreement with the Canadian Gas Association; and
- (e) the equipment meets all standards of design and construction prescribed by the certification report and complies with all the terms and conditions contained therein.
- (4) As an alternative to the requirements of Subrule (1) hereof, all electrical equipment consisting of an assembly or combination of component parts intended for use in conjunction with or as an integral part of general fire protection equipment and burglar and fire alarm systems shall be deemed to be approved when:
- (a) a certification report has been issued by either the Canadian Standards Association or the Underwriters' Laboratories of Canada that the equipment meets the applicable standards relating to the equipment;
- (b) the certification mark of the organization certifying the equipment has been affixed permanently to the equipment;
- (c) the certification report has been adopted by the inspection department;
- (d) the manufacturer of the equipment has entered into a service agreement with the Canadian Standards Association or Underwriters' Laboratories of Canada or both; and
- (e) the equipment meets all standards of design and construction prescribed by the certification report and complies with all terms and conditions contained therein.
- (5) As an alternative to the requirements of Subrule (1) hereof, all electrical equipment consisting of an assembly or combination of component parts used as an integral part of a solid fuel-fired appliance shall be deemed to be approved when:
- (a) a certification report is issued by Warnock Hersey Professional Services Limited, the Underwriters' Laboratories of Canada or the Canadian Gas Association that the equipment meets the applicable standards relating to the equipment;
- (b) the certification report has been adopted by the inspection department;
- (c) the certification mark of the organization certifying the equipment has been affixed permanently to the appliance;
- (d) the manufacturer of the equipment has entered into a service agreement with Warnock Hersey Professional Services Limited, Underwriters' Laboratories of Canada or the Canadian Gas Association as applicable; and
- (e) the equipment meets all standards of design and construction prescribed by the certification report and complies with all terms and conditions contained therein.
- (6) As an alternative to Subrule (1) all electrical equipment consisting of an assemblage or combination of component parts used as an integral part of a plumbing fixture shall be deemed to be approved when:
- (a) a certification report is issued by Warnock Hersey Professional Services that the equipment meets the applicable standards relating to the equipment;
- (b) the certification report has been adopted by the inspection department;
- (c) the certification mark of Warnock Hersey Professional Services Limited has been affixed permanently to the fixture;
- (d) the manufacturer of the equipment has entered into a service agreement with Warnock Hersey Professional Services Limited; and
- (e) the equipment meets all standards of design and construction prescribed by the certification report and complies with all terms and conditions contained therein.
- (7) Electrical equipment built to customer's order, electrical equipment manufactured or produced singly or in small quantities and electrical equipment, that cannot be conveniently examined and tested by submission of samples, shall be submitted to the inspection department for examination and testing.
- (8) The prescribed equipment referred to in Subrule (4) hereof shall be deemed to be approved when:
- (a) the electrical equipment or a sample thereof has been examined and tested by the inspection department and found to conform to this Code and to present no undue hazard to persons or property;
- (b) a certificate or other writing evidencing the conformity has been issued by the inspection department;
- (c) all fees payable to the inspection department in respect of the examination and testing have been paid;
- (d) the equipment bears an approval label supplied by the inspection department; and
- (e) the equipment, in the case of examination and test by sample, is of the same standard of design and construction as the standard of the sample tested.

(9) Where any electrical equipment is used in, or connected to, an electrical installation or is about to be so used or connected, and having regard to public safety and protection of property, it would be sufficient to have the equipment inspected under Rule 2-004 instead of being approved under the foregoing provisions of this Rule, the inspection department may direct accordingly and thereupon the equipment shall be deemed to form a part of the electrical installation.

(10) No person shall affix to any electrical equipment other than the electrical equipment approved under Subrules (7), (8) and (9) hereof any label indicating or intended to indicate that the electrical equipment is approved other than an approval label that has been supplied by the inspection department or under a service agreement.

(11) No person shall affix any approval label to any electrical equipment other than the approved electrical equipment for which the label was issued.

(12) No person to whom approval labels have been supplied, either by the inspection department or under a service agreement, shall sell, give, transfer or permit any other person to have possession of the labels without first obtaining the consent in writing of the inspection department.

2-026 Cancellation of Approval

(1) The inspection department may cancel the approval of any electrical equipment where:

- (a) The equipment is not being manufactured or produced in conformance with the approvals obtained under Rule 2-024;
- (b) Field experience has shown the equipment to be unduly hazardous to life or property; or
- (c) The manufacturer of the equipment makes default in observing or performing any of the terms of the service agreement to which he is a party.

(2) When an approval has been cancelled, the equipment shall be deemed to be not approved.

2-028 Miscellaneous

(1) The testing and inspection by the inspection department of any electrical equipment under Subrules (7) and (8) of Rule 2-024 may be carried out by such inspectors at such times and places and in such manner as the inspection department from time to time determines.

(2) Subject to Subrule (9) of Rule 2-024, any electrical equipment used or capable of being used or adapted to serve or perform any particular purpose or function when connected to an electrical installation shall be approved before being so connected unless the connection is made for the purpose of inspection or testing of the equipment under this Code.

(3) Any electrical equipment that consists of an assembly or combination of other electrical equipment

is subject to this Code respecting approval, and is not approved by reason only that any or all of the component parts thereof have been individually approved.

2-030 Deviation or Postponement. A deviation from or postponement of the requirements of this Code is lawful in respect of an electrical installation where adequate proof that the deviation or postponement does not create an undue hazard to persons or property under the circumstances has been provided to an inspector of that installation.

2-032 Damage and Interference

(1) No person shall damage or cause any damage to any electrical installation or electrical equipment.

(2) No person shall interfere with any electrical installation or electrical equipment in the course of alterations or repairs to non-electrical equipment or structures except where it is necessary to disconnect or move components of an electrical installation, in which event it shall be the responsibility of the person carrying out the alterations or repairs to ensure that the electrical installation is restored to a safe operating condition as soon as the progress of the alterations or repairs permit.

2-034 Use of Approved Equipment. No one shall use any electrical equipment other than approved electrical equipment of a kind or type and rating approved for the specific purpose for which it is to be employed.

2-036 General. No contractor shall perform any work on an electrical installation in any manner contrary to the requirements of this Code.

Technical

General Rules

2-100 Marking of Equipment

(1) Each piece of electrical equipment shall bear such of the following marking as may be necessary to identify the equipment and ensure that it is suitable for the particular installation:

- (a) The maker's name, trademark, or other recognized symbol of identification;
- (b) Catalogue number or type;
- (c) Voltage;
- (d) Rated load amperes;
- (e) Watts, volt-amperes, or horsepower;
- (f) Whether for ac, dc, or both;
- (g) Number of phases;
- (h) Frequency in hertz;
- (i) Rated load speed in revolutions per minute;
- (j) Designation of terminals;
- (k) Whether for continuous or intermittent duty;

(l) Evidence of approval;

(m) Such other marking as may be necessary to ensure safe and proper operation.

(2) Each service box, at the time of installation, shall be marked in a conspicuous, legible, and permanent manner, to indicate clearly the maximum rating of the overcurrent device which may be used for this installation.

(3) At each distribution point, circuit breakers, fuses, and switches shall be marked, adjacent thereto, in a conspicuous and legible manner to indicate clearly:

(a) Which installation or portion of installation they protect or control; and

(b) The maximum rating of overcurrent device that is permitted.

(4) The marking on electrical equipment shall not be added to or changed to indicate a use under this Code for which the equipment has not been approved.

2-102 Rebuilt Equipment

(1) Where any electrical machine or apparatus is rebuilt or rewound with any change in its rating or characteristics, it shall be provided with a nameplate giving the name of the person or firm by whom such change was made together with the new marking.

(2) Where the original nameplate is removed, the original manufacturer's name and any original identifying data, such as serial numbers, shall be added to the new nameplate.

(3) The appropriate requirements of the Canadian Electrical Code, Part II applying to new electrical equipment also apply to rebuilt and rewound equipment unless it is impracticable to comply with the requirements.

2-104 Substitution. Where electrical equipment of the exact size or rating is not procurable for a given purpose, equipment of such larger size or rating as is consistent with the use of equipment of the exact size or rating may be used or equipment of such smaller size or rating as is lawful under Rule 2-030 may be used.

2-106 Circuit Voltage-To-Ground—Dwelling Units. Branch circuits in dwelling units shall not have a voltage exceeding 150 volts-to-ground except that where the calculated load on the service conductors of an apartment or similar multi-family building exceeds 250 kva and where trained and qualified electrical maintenance personnel are available, higher voltages not exceeding the voltage-to-ground of a nominal system voltage of 347/600Y may be used in the dwelling unit to supply the following fixed (not portable) equipment:

(a) Space heating, providing wall mounted thermostats operate at a voltage not exceeding 300 volts-to-ground;

(b) Water heating;

(c) Air conditioning.

2-108 Class of Workmanship. The mechanical arrangement and execution of work in connection with any electrical installation are to result in an acceptable electrical installation.

2-110 Material for Anchoring to Masonry and Concrete. Wood or other similar material shall not be used as an anchor into masonry or concrete for the support of any electrical equipment.

2-112 Corrosion Protection for Materials Used in Wiring

(1) Metallic materials used in wiring, such as raceways, cable sheaths and armour, boxes and fittings shall be suitably protected against corrosion for the environment in which they are to be used or shall be made of suitable corrosion-resistant material.

(2) Where practicable, dissimilar metals shall not be used where there is a possibility of galvanic action.

2-114 Soldering Fluxes. Fluxes used for soldering copper and its alloys shall be of types that are non-corrosive to copper.

2-116 AWG Sizes of Conductors. Where reference is made in this Code to AWG size, this shall mean the copper AWG size, unless otherwise specified.

2-118 Installation of Electrical Equipment. Electrical equipment shall be so installed as to ensure that after installation there is ready access to nameplates and access to parts requiring maintenance.

2-120 Installation of Other Than Electrical Equipment. Equipment or material of other than an electrical nature shall not be installed or placed so close to electrical equipment as to create a condition which is dangerous, having regard to public safety and protection of property.

2-122 Space for Service and Distribution Equipment. The space provided for electrical service and distribution equipment shall be acceptable.

2-124 Use of Thermal Insulation

(1) Where the hollow spaces between studding, joists, or rafters of buildings are to be filled with thermal insulation, the following restrictions, as applicable, shall apply to the installation of electric wiring in such spaces:

(a) Special care shall be taken to ensure that conductor insulation temperatures are not exceeded due either to mutual heating of adjacent conductors or cables, or to reduced heat dissipation through the thermal insulation;

(b) If the space is to be filled with an approved loose or free flowing material which is non-corrosive, fire-resisting, and non-conducting, any

type of wiring system recognized by this Code may be used, but special care shall be taken to ensure that there will be no strain on the conductors due to weight or pressure of the insulating material;

- (c) If the thermal insulation material, in the form of batts or rigid sheets, is installed prior to the installation of the wiring and secured in place so that there will be no undue pressure on the conductors, no special precaution need be observed;
- (d) If thermal insulation made of or faced with metal is installed, the wiring shall conform to the following:
 - (i) a 25 millimetre separation shall be provided between the thermal insulation and the knob-and-tube wiring;
 - (ii) non-metallic sheathed cable may be in contact with the insulation;
- (e) Mineral-insulated cable or aluminum-sheathed cable shall not be used with types of thermal insulation which are liable to have a corrosive action on the sheath.

(2) Thermal insulation material shall not be sprayed or otherwise introduced into the interior of outlet boxes, junction boxes and enclosures for other electrical equipment.

2-126 Fire Spread

(1) Electrical installations shall be so made that the probability of spread of fire through fire-stopped partitions, floors, hollow spaces, fire walls or fire partitions, vertical shafts, ventilating or air-conditioning ducts, is reduced to a minimum.

(2) Where a fire separation is pierced by a raceway or cable, any openings around the raceway or cable shall be properly closed or sealed in accordance with the requirements of the Ontario Building Code.

2-128 Flame Spread Requirements For Electrical Wiring and Cables. Electrical wiring and cables installed in buildings shall meet the flame spread requirements of the Ontario Building Code.

2-130 Insulation Integrity.

(1) All wiring shall be so installed that when completed the system will be free from short circuits and from grounds except as permitted in Section 10.

(2) When insulation integrity tests are performed, solid-state components shall be completely disconnected for the test and reconnected afterwards.

2-132 Use of Ground Fault Circuit Interrupters. Ground fault circuit interrupters may be used as supplementary protection from shock hazard but shall

not be used as a substitute for insulation or grounding except as permitted by Rule 10-408(4).

Protection of Persons and Property

2-200 General. Electrical equipment shall be installed and guarded so that adequate provision is made for the safety of persons and property and for the protection of the electrical equipment from mechanical or other injury to which it is liable to be exposed.

2-202 Guarding of Bare Live Parts

(1) Bare live parts shall be guarded against accidental contact by means of approved cabinets or other forms of approved enclosures except where the bare live parts are:

- (a) Located in a suitable room, vault, or similar enclosed area which is accessible only to qualified persons; or
- (b) As elsewhere permitted by this Code.

(2) Where electrical equipment has mounted on it, within 900 millimetres of bare live parts, non-electrical components that require servicing by unqualified persons, suitable barriers or covers shall be provided for the bare live parts.

(3) Entrances to rooms and other guarded locations containing exposed bare live parts shall be marked with conspicuous warning signs forbidding entry to unqualified persons.

Maintenance and Operation

2-300 General Requirements for Maintenance and Operation

(1) All operating electrical equipment shall be kept in safe and proper working condition.

(2) Electrical equipment maintained for emergency service shall be periodically inspected and tested as is necessary to ensure its fitness for service.

(3) Infrequently used electrical equipment maintained for future service shall be thoroughly inspected before use in order to determine its fitness for service.

(4) Defective equipment shall either be put in good order or permanently disconnected.

2-302 Maintenance in Hazardous Locations. In locations where explosive or highly flammable materials or gases are present, special precautions shall be observed as follows:

- (a) Repairs or alterations shall not be made on any live equipment; and
- (b) Fits or seals in enclosures shall be maintained in their original safe condition.

2-304 Disconnection

(1) No repairs or alterations shall be carried out

on any live equipment except where complete disconnection of the equipment is not practicable.

(2) Three-way or four-way switches are not to be considered as disconnecting means.

(3) Adequate precautions, such as locks on circuit breakers or switches, warning notices, sentries, or other equally effective means, shall be taken to prevent electrical equipment from being electrically charged when work is being done thereon.

2-306 Maintenance of Live Equipment. No one shall work on any live equipment unless protected by approved insulated or insulating devices such as tongs, rubber gloves, boots, mats, etc., which shall always be maintained in proper condition for use.

2-308 Working Space About Electrical Equipment

(1) A minimum working space of 1 metre with secure footing shall be provided and maintained about electrical equipment such as switchboards, panelboards, control panels and motor control centres which are enclosed in metal, except that working space is not required behind such equipment where there are no renewable parts such as fuses or switches on the back and where all connections are accessible from locations other than the back.

(2) The space referred to in Subrule (1) shall be in addition to the space required for the operation of draw-out type equipment in either the connected, test, or fully disconnected position and shall be sufficient for the opening of enclosure doors and hinged panels to at least 90 degrees.

(3) Working space with secure footing not less than that specified in Table 56, shall be provided and maintained about electrical equipment such as switchboards, control panels and motor control centres having exposed live parts.

(4) The minimum headroom of working spaces about switchboards or motor control centres where bare live parts are exposed at any time shall be 2.2 metres.

2-310 Entrance To, and Exit From, Working Space

(1) Each room containing electrical equipment and each working space about equipment shall have suitable means of exit and entrance, which shall be kept clear of all obstructions.

(2) An exit may also be used as an entrance.

(3) If the plan of the room or space and the characteristics and arrangement of equipment are such that an accident would be liable to close or make inaccessible a single exit, a second exit shall be provided.

(4) Doors or gates of suitable material may be provided but they shall be capable of being readily opened from the equipment side without the use of a key or tool.

2-312 Accessibility for Maintenance. Passageways and working space around electrical equipment shall not be used for storage and shall be kept clear of obstruction and so arranged as to give authorized persons ready access to all parts requiring attention.

2-314 Illumination of Equipment. Adequate illumination shall be provided to allow for proper operation and maintenance of electrical equipment.

2-316 Flammable Material Near Electrical Equipment. Flammable material shall not be stored or placed in dangerous proximity to electrical equipment.

2-318 Ventilation. Adequate ventilation shall be provided so as to prevent the development about electrical equipment of ambient air temperatures in excess of those normally permissible for such equipment.

2-320 Drainage. Electrical equipment having provision for draining moisture shall be installed so that the drainage path is not impeded.

2-322 Electrical Equipment Near Gas Meters. Arc producing electrical equipment shall not be installed within a 1 metre distance of a meter used to measure natural gas, manufactured gas, or liquefied petroleum gases which are distributed in a gaseous state.

Enclosures

2-400 Enclosures, Designations and Use

(1) The following designations of enclosures for electrical equipment other than motors and generators shall be recognized for the purposes of this Code for the intended use as specified:

(a) CSA Enclosure 1:

- (i) A general purpose enclosure of metal or other suitable material which protects live parts from accidental contact;
- (ii) For use indoors in ordinary locations;

(b) CSA Enclosure 2:

- (i) A dripproof enclosure constructed or protected so that exposure to falling moisture will not impair the effectiveness of the enclosed equipment;
- (ii) For use indoors where the enclosure may be subject to drops of falling liquid due to severe condensation or other causes;

(c) CSA Enclosure 3:

- (i) A weatherproof enclosure constructed or protected so that exposure to the weather, to falling moisture, or to external splashing, will not impair the effectiveness of the enclosed equipment;
- (ii) For use outdoors;

(d) CSA Enclosure 4:

- (i) A water-tight enclosure constructed so that a stream of water from a hose will not enter the enclosure;
- (ii) For use where the enclosure may be subject to direct streams of water;

(e) CSA Enclosure 5:

- (i) A dust-tight enclosure constructed so that dust, readily ignitable fibres, or combustible flyings cannot enter the enclosure;
- (ii) For use indoors where the atmosphere may carry non-hazardous dust, or as permitted in Section 18 for hazardous locations.

(2) An enclosure may be constructed so as to comply with two or more of these designations, as for example, a water- and dust-tight enclosure which meets the requirements for both designations.

(3) CSA Enclosure 3 may be used where CSA Enclosure 2 is required, and CSA Enclosure 4 may be used where CSA Enclosure 2 or CSA Enclosure 3 is required.

(4) Enclosures of equipment for use in a hazardous location shall be designated in accordance with Rule 18-052.

2-402 Marking of Enclosures. General purpose enclosures need not be marked to indicate the enclosure designation, but all others defined in Rule 2-400 shall be marked to indicate the enclosure designation.

2-404 Marking of Motors

(1) Dripproof, weatherproof and totally enclosed motors for use in non-hazardous locations shall be marked as follows:

- (a) If a dripproof motor, with the word "Dripproof" or the code letters "DP";
- (b) If a weatherproof motor, with the word "Weatherproof" or the code letters "WP";
- (c) If a totally enclosed motor, with the words "Totally Enclosed" or the code letters "TE".

(2) Notwithstanding Subrule (1), special purpose motors that are intended to be used only as components of specific equipment need not be so marked.

SECTION 4—CONDUCTORS

4-000 Scope. This Section applies to conductors for lighting, appliance and power supply circuits and does not apply to other conductors except where specifically referenced in other Sections of this Code.

4-002 Size of Conductors. Except for flexible cord, equipment wire, control circuit wire and cable,

conductors shall be not smaller than No. 14 AWG when of copper and not smaller than No. 12 AWG when of aluminum.

4-004 Ampacity of Wires and Cables

(1) The maximum current which a copper conductor of a given size and insulation may carry shall be as follows:

- (a) Single conductor, and single-conductor metal-sheathed or armoured cable, in a free air run, as specified in Table 1;
- (b) 1, 2, or 3 conductors in a run of raceway, or 2- or 3-conductor cable, as specified in Table 2; and
- (c) 4 or more conductors in a run of raceway or cable, as specified in Table 2, with the applicable correction factor applied as specified in Table 5C.

(2) The maximum current which an aluminum conductor of a given size and insulation may carry shall be as follows:

- (a) Single conductor, and single-conductor metal-sheathed or armoured cable, in a free air run, as specified in Table 3;
- (b) 1, 2, or 3 conductors in a run of raceway, or 2- or 3-conductor cable, as specified in Table 4; and
- (c) 4 or more conductors in a run of raceway or cable, as specified in Table 4, with the applicable correction factor applied as specified in Table 5C.

(3) A neutral conductor which carries only the unbalanced current from other conductors, as in the case of normally balanced circuits of three or more conductors, shall not be counted in determining ampacities as provided for in Subrules (1) and (2).

(4) A common conductor of a three-wire circuit, consisting of conductors connected to two phase wires and the neutral of a four-wire, three-phase system, carries approximately the same current as the other conductors, and shall not be considered as a neutral conductor.

(5) The maximum allowable ampacity of neutral supported cable shall be as specified in Table 36.

(6) A bonding conductor shall not be counted in determining the ampacities as provided for in Subrules (1) and (2).

(7) The correction factors specified in this Rule,

- (a) apply only to, and shall be determined from, the number of power and lighting conductors in a cable or raceway; and
- (b) shall not apply to conductors installed in auxiliary gutters.

(8) The ambient correction factors of Table 5A shall apply where conductors are installed in an ambient exceeding or anticipated to exceed 30°C.

(9) Where single conductors having a free air rating are run in contact with each other, the ampacity shall be corrected by applying the factors in Table 5B for up to four conductors in contact, and by utilizing the ampacity of Table 2 or 4 where there are more than four in contact.

(10) Where multi-conductor cables are run in contact with each other for distances exceeding 600 millimetres, the ampacity of the conductors shall be corrected by applying the factors in Table 5C.

(11) The ampacity of conductors of different temperature ratings installed in the same raceway on the basis of the conductor having the lowest temperature rating.

(12) The ampacity of conductors added to a raceway and the ampacity of the conductors already in the raceway shall be determined in accordance with the applicable Subrules.

(13) The ampacity of service conductors supplying enclosed fusible switches not exceeding 600 amperes shall not be less than the switch rating.

(14) Notwithstanding Subrule (13), where the load can be determined under Section 8, the ampacity of service conductors supplying enclosed fusible switches rated over 100 amperes but not exceeding 600 amperes shall not be less than the load or 80 per cent of the switch rating, whichever is the greater.

(15) The requirements of Subrules (13) and (14) shall also apply to the conductors on the load side of the main service switch or equivalent up to the first point of distribution or equivalent;

(16) Subrules (13), (14) and (15) shall not apply to conductors supplying:

- (i) A single fixed load where the load is unlikely to be increased; nor,
- (ii) A motor load where the conductors are sized in accordance with Section 28.

4-006 Insulated Conductors

(1) Insulated conductors shall be of types specified in Table 19 for each specific condition of use, except as may be otherwise required by other Sections of this Code.

(2) Where harmful condensed vapours or liquids of either an acid or alkaline nature or organic solvents such as hydrocarbons, ketones, esters, alcohols, or liquid derivatives thereof, may collect on or come in contact with insulation on conductors, the insulation shall be of a type resistant to these materials or the insulation shall be protected by a sheath of lead or by other approved means.

4-008 Sheath Currents in Single-Conductor Metallic-Sheathed Cables

(1) Where sheath currents in single-conductor cables having continuous sheaths of lead, aluminum, or copper are likely to cause the insulation of the conductors to be subjected to temperatures in excess of the insulation ratings, the cables shall be:

- (a) Derated to 70 per cent of current-carrying rating which would otherwise apply;
- (b) Derated in accordance with the manufacturer's instructions and lawful under Rule 2-030; or
- (c) Installed in such a manner as to prevent the flow of sheath currents.

(2) Circulating currents in single-conductor armoured cable shall be treated in the same manner as sheath currents in Subrule (1).

4-010 Uses of Flexible Cord

(1) Flexible cord shall be of the types specified in Table 11 for each specific condition of use.

(2) Flexible cord may be used for:

- (a) Electrical equipment for household or similar use having a rating of 15 amperes or less at voltages not exceeding 250 volts and which is intended to be:

- (i) Moved from place to place; or
- (ii) Detachably connected according to a Part II Standard;

- (b) Electrical equipment for industrial use which must be capable of being moved from place to place for operation;

(c) Pendants;

(d) Wiring of cranes and hoists;

(e) The connection of stationary equipment to facilitate its interchange if the connection is lawful under Rule 2-030;

(f) The prevention of transmission of noise and vibration;

(g) The connection of electrical components between which relative motion is necessary;

(h) The connection of appliances such as ranges and clothes dryers; and

(i) Both connection using an attachment plug, and interconnection of data processing systems, provided the cord or cable is of the extra-hard usage type.

(3) Flexible cord shall not be used:

- (a) As a substitute for the fixed wiring of structures and shall not be:

- (i) Permanently secured to any structural member;
 - (ii) Run through holes in walls, ceilings, or floors; or
 - (iii) Run through doorways, windows, or similar openings;
- (b) At temperatures above the temperature rating of the cord or at temperatures sufficiently low as to be liable to result in damage to the insulation or overall covering;
- (c) For the suspension of any device weighing more than 2.3 kilograms, unless the cord and device assembly are marked as capable of supporting a weight up to 11 kilograms.

(4) Flexible cord shall be protected by an insulating bushing or in some other acceptable manner where it enters or passes through a wall or partition of a device or enters a lampholder.

(5) Where a flexible cord is used as an extension cord or to plug into an appliance or other device, no live parts shall be exposed when one end is connected to a source of supply and the other end is free.

4-012 Sizes of Flexible Cord. Flexible cord shall not be smaller than a No. 18 AWG copper conductor except for:

- (a) Tinsel cord, which may be No. 27 AWG copper; and
- (b) Cords for use with specific devices which may be No. 20 AWG copper.

4-014 Ampacity of Flexible Cords

(1) The maximum current which 2 or more copper conductors of given size contained in a flexible cord may carry, shall be as follows:

- (a) 2 or 3 conductors—as specified in Table 12;
- (b) 4, 5, or 6 conductors—80 per cent of that specified in Table 12;
- (c) 7 to 24 conductors inclusive—70 per cent of that specified in Table 12;
- (d) 25 to 42 conductors inclusive—60 per cent of that specified in Table 12;
- (e) 43 or more conductors—50 per cent of that specified in Table 12.

(2) Conductors used for bonding equipment to ground and a conductor used as a neutral conductor, which carries only the unbalanced current from other conductors, as in the case of a normally balanced circuit of three or more conductors, are not counted in determining conductor ampacity.

4-016 Flexible Cord Used in Show Windows or Show Cases

- (1) Flexible cord used in show windows or show cases shall, except for chain fixtures, be at least of hard usage types.
- (2) The use of flexible cord to supply current to portable lamps and other devices for exhibition purposes is permitted.

4-018 Equipment Wire

- (1) Equipment wire shall be of a type specified in Table 11 for each specified condition of use.
- (2) Equipment wire used as fixture wiring shall be not smaller than a No. 18 AWG copper conductor.
- (3) Christmas-tree wire shall not be smaller than a No. 20 AWG copper conductor.
- (4) The maximum current which a fixture wire or a Christmas-tree wire of a given size may carry shall be that specified in Table 12.

4-020 Insulation of Neutral Conductors

- (1) Except as permitted by Rules 6-302, 6-308, 12-302, and 12-318 neutral conductors shall be insulated.
- (2) Where insulated neutrals are used, the insulation on the neutral conductors shall have a temperature rating not less than the temperature rating of the insulation on the ungrounded conductors.

4-022 Size of Neutral Conductor

- (1) The neutral conductor shall have sufficient ampacity to carry the unbalanced load.
- (2) The maximum unbalanced load shall be the maximum connected load between the neutral and any one ungrounded conductor as determined by Section 8 but subject to the following:
 - (a) There shall be no reduction of the neutral capacity for that portion of the load which consists of electric discharge lighting; and
 - (b) Except as required otherwise by Subrule (a), a demand factor of 70 per cent is permitted to be applied to that portion of the unbalanced load in excess of 200 amperes.
- (3) The size of an insulated or uninsulated neutral used in services shall be not smaller than the size of a neutral selected in accordance with Subrule (1) and shall be not smaller than:
 - (a) No. 10 AWG copper or No. 8 AWG aluminum; and
 - (b) The size of a grounding conductor required by Rule 10-812 except in service entrance cable, or

where the service conductors are No. 10 AWG copper or No. 8 AWG aluminum.

(4) In determining the ampacity of an uninsulated neutral conductor run in a raceway, it shall be considered to be insulated with insulation having a temperature rating not higher than that of the adjacent circuit conductors.

4-024 Common Neutral Conductor. Providing that when in metal enclosures all conductors of feeder circuits employing a common neutral are contained within the same enclosure, a common neutral may be employed for:

- (a) Two or three sets of three-wire, single-phase feeders; or
- (b) Two sets of four-wire, three-phase feeders.

4-026 Installation of Neutral Conductor. Where a service, feeder, or branch circuit requires a neutral conductor, it shall be installed:

- (a) In all separately enclosed switches and circuit breakers;
- (b) In all centres of distribution associated with the circuit;
- (c) With all connections to the neutral being made in the enclosures and centres; and
- (d) In such a manner that any neutral conductor may be disconnected without disconnecting any other neutral conductor.

4-028 Identification of Insulated Neutral Conductors Up to and Including No. 2 AWG Copper or Aluminum

(1) Except as permitted in Subrule (2), all insulated neutral conductors up to and including No. 2 AWG copper or aluminum and the insulated conductors of all flexible cords permanently attached to such neutral conductors shall be identified by a white or natural grey covering.

(2) The covering of the other conductor or conductors shall show a continuous colouring contrasting with that of an identified conductor except that in the case of those flexible cords where the identified conductor is identified by a raised longitudinal ridge or ridges, the other conductors shall have no ridges.

4-030 Identification of Insulated Neutral Conductors Larger Than No. 2 AWG Copper or Aluminum. For insulated neutral conductors larger than No. 2 AWG copper or aluminum and for those having other than rubber or thermoplastic insulation, identification shall either be continuous, as for No. 2 AWG and smaller, or else each continuous length of conductor shall be suitably labelled or otherwise clearly marked at each end at the time of installation, so that it can be readily identified.

4-032 Identification of Type MI Neutral Conductors. Where mineral-insulated cable is used for neutral conductors, and where continuous identification of this type of conductor is, at present, technically impossible in manufacture, each continuous length of conductor shall be permanently and clearly marked at each end at the time of installation, so that it can be readily identified.

4-034 Use of Identified Conductors

(1) An identified conductor shall not be used as a conductor for which identification is not required by these rules except that in armoured cable, aluminum-sheathed cable, and non-metallic sheathed cable work, the identified conductor may be rendered permanently unidentifiable by painting or other suitable means at every point where the separate conductors have been rendered accessible and visible by removal of the outer covering of the cable.

(2) Where armoured cable, aluminum-sheathed cable, or non-metallic sheathed cable containing an identified conductor is used for single-pole, 3-way or 4-way switch loops, it shall not be necessary to render the identified conductor permanently un-identified at the switch if the connections are made so that an unidentified conductor is the return conductor from the switch to the outlet.

(3) Where armoured cable, aluminum-sheathed cable or non-metallic sheathed cable is used so that the identified conductor forms no part of the circuit, the identified conductor shall be cut off short or other suitable means shall be employed to indicate clearly that the identified conductor does not form part of the circuit and this shall be done at every point where the separate conductors have been rendered accessible and visible by removal of the outer covering of the cable.

(4) Where conductors of a multi-wire branch circuit are installed, employing an identified conductor, the continuity of the identified conductor shall be independent of device connections, such as lampholders, receptacles, ballasts, etc., so that devices may be disconnected without interrupting the continuity of the identified conductor.

4-036 Colour of Conductors

(1) Insulated grounding or bonding conductors shall:

- (a) have a continuous outer finish that is either green or green with one or more yellow stripes; or
- (b) if larger than No. 2 AWG, be permitted to be labelled or marked in a permanent manner with a green colour or green with one or more yellow stripes at each end and at each point where the conductor is accessible.

(2) Conductors coloured or marked in accordance with Subrule (1) shall only be used as grounding or bonding conductors.

(3) Where colour coded circuits are required, the following colour coding shall be used, except in the

case of service-entrance cable and insofar as Rules 4-030 and 6-308 may modify these requirements:

- 1 phase ac
or dc (2-wire)—1 black and 1 red
or
1 black and 1 white or natural
grey (where identified conductor
is required)
- 1 phase ac
or dc (3-wire)—1 black, 1 red, and 1 white or
natural grey
- 3 phase ac — 1 red (phase A), 1 black (phase B),
1 blue (phase C), and 1 white or
natural grey (where neutral is
required).

(4) Where the mid-point of one phase of a 4-wire delta-connected secondary is grounded to supply lighting and similar loads, the conductors shall be colour coded in accordance with Subrule (3) and the phase A conductor shall be the conductor having the higher voltage-to-ground.

(5) Where a panelboard is supplied from a 4-wire delta-connected system the grounded conductor referred to in Subrule (4) shall be located in a compartment provided for single phase connections and the phase conductor having the higher voltage-to-ground shall be suitably barriered from that compartment.

4-038 Uses of Portable Power Cable

(1) Portable power cables shall be of a type as specified in Table 11 for each specific condition of use.

(2) Portable power cables are permitted for:

- (a) electrical equipment that is intended to be:
- (i) moved from place to place; or
- (ii) detachably connected according to a Canadian Electrical Code Part II Standard;
- (b) wiring of cranes and hoists;
- (c) the connection of stationary equipment to facilitate its interchange;
- (d) the connection of electrical components between which relative motion is necessary; and
- (e) the connection of equipment used in conjunction with travelling amusement rides.

(3) Portable power cable shall not be used:

- (a) as a substitute for the fixed wiring of structures and shall not be:
- (i) permanently secured to any structural member;

(ii) run through holes in walls, ceilings, or floors of permanent structure; or

(iii) run through doorways, windows, or similar openings of permanent structures;

(b) at a temperature above the temperature rating of the cable or at a temperature sufficiently low as to be liable to result in damage to the insulation or overall covering.

(4) Where portable power cable enters or passes through the wall of an enclosure or fitting it shall be protected in accordance with Rule 12-3026.

4-040 Ampacity of Portable Power Cable

(1) The maximum current which one or more copper conductors of a given size contained in a portable power cable may carry shall be as specified in Table 12A.

(2) Conductors used for bonding equipment to ground and a conductor used as a neutral which carries only the unbalanced current from other conductors, as in the case of a normally balanced circuit of 3 or more conductors, are not considered in determining conductor ampacities.

SECTION 6—LOW-POTENTIAL SERVICES AND SERVICE EQUIPMENT

6-000 Scope. This Section applies to services, service equipment, and metering equipment for:

- (a) Installations operating at voltages of 750 volts or less; and
- (b) Installations operating at voltages in excess of 750 volts except as modified by the requirements of Section 36.

General

6-100 Special Terminology. For this Section the following definition applies:

A "transformer rated meter mounting device" means a meter mounting device with current transformers with or without test switches mounted in the same enclosure.

6-102 Number of Supply Services Permitted

(1) Two or more supply services of the same voltage and other characteristics shall not be run to any building from the same system of any supply authority except for:

- (a) fire pumps and other emergency systems;
- (b) buildings of large area;
- (c) multiple occupancy buildings with readily definable areas separated by partitions having:

- (i) fire ratings in accordance with the requirements of the Ontario Building Code, or
 - (ii) a 3 hour fire rating; or
- (d) where several buildings or sections of buildings cover a common parking or service area located below the buildings.

(2) Where two or more supply services of different voltages or classification are installed in or to a building, all consumers' services shall be grouped where practicable.

6-104 Number of Consumer's Services Permitted In or On a Building. The number of consumer's services of the same voltage and characteristic, terminating at any one supply service, run to, on or in any building, shall not exceed four or such larger number as is lawful under Rule 2-030.

6-106 Current Supply from More Than One System. Where an installation, or portion thereof, is to be supplied with current from two or more different systems, the switching equipment controlling the various supplies shall be constructed or arranged so that it will be impossible to accidentally switch on power from one source before that from another has been cut off.

6-108 Supply Service from an Electric Railway System. A supply service shall not be run to a building from an electric railway system using a ground return, unless the building is connected with the operation of an electric railway.

6-110 Three-Wire Consumer's Services. A three-wire consumer's service shall be provided in all cases where more than two 120 volts branch circuits are installed, unless such supply is not available from the supply authority.

6-112 Support for the Attachment of Overhead Supply Service Conductors

(1) An acceptable means of attachment shall be provided for all supply or consumer service conductors.

(2) The point of attachment of supply or consumer service conductors shall be not less than 4.5 metres nor more than 9 metres above sidewalk or grade level and shall be so located and of such a height as to afford at a temperature of 16°C a clearance measured vertically between the conductors and the ground of at least:

- (a) 4.5 metres on properties accessible to pedestrians and passenger vehicles only; or
- (b) 6 metres on properties accessible to commercial and farm vehicles.
- (3) Exposed service conductors, which are not higher than windows, doors, and porches shall have a clearance of not less than 1 metre, therefrom.
- (4) Where service masts are used they shall be of

metal and assembled from components suitable for service mast use and shall be installed in an acceptable manner.

(5) Rigid steel conduit of a minimum nominal size of 2½ inches is permitted to be used for the purpose of Subrule (4) provided that all other requirements for a service mast are complied with.

(6) Bolts shall be used for securing the support at the point of attachment, and if attached to wooden structural members, the latter shall be not less than 38 millimetres in any dimension.

(7) The supply or consumer service conductor support shall not be attached to the roof of a structure, except as permitted in Subrule (8).

(8) Notwithstanding Subrule (7), it is permitted to fasten the upper service mast support and the eye bolt to which a guy wire is attached to a main structural member of the roof such as a roof rafter, a roof truss, or equivalent.

6-114 Methods of Terminating Conductors at Consumer's Service

(1) The supply end of a consumer's service shall be equipped with an approved rain-tight service-head except as provided for in Subrules (2) and (3).

(2) Where service cables are employed and are continuous from the supply service to the service equipment, the service head required by Subrule (1) may be omitted.

(3) Where single-conductor cables or multi-conductor cables are employed the service head required by Subrule (1) may be omitted provided:

- (a) The cable terminates in an approved cable termination suitable for exposure to the weather; or
- (b) The cable ends are sealed with self-sealing weather resistant thermoplastic tape or heat shrinkable tubing; and
- (c) Both single-conductor and multi-conductor cables are bent as may be necessary so the conductors emerging from the sealed point of the cable termination will point downwards; and
- (d) The cables are held securely in place by a clamp, fitting, or cable termination approved for the purpose.

(4) Conductors of different polarity shall be brought out through separately bushed holes of the service head.

(5) Consumer's service conductors shall be installed as specified in Rule 6-302(3).

(6) The overhead supply service conductors and the

consumer service conductors shall be arranged according to the requirements of Rule 6-114 so as to prevent moisture and water from entering service raceways, cables or equipment.

6-116 Consumer's Service Head Location. The consumer's service head or equivalent shall be installed:

- (a) In an acceptable location;
- (b) In a location which complies with applicable codes or standards under a rule or by-law of the supply authority concerning the location of a consumer's service head; and
- (c) In such a position that the point of emergence of the conductors from the consumer's service head or equivalent is a minimum of 150 millimetres and a maximum of 300 millimetres above the support for attachment of the overhead service conductors.

Control and Protective Equipment

6-200 Service Equipment

(1) Except as provided in Subrule (2), each consumer's service shall be provided with a single service box.

(2) Where acceptable, or unless prohibited by a code or standard under a rule or by-law of the supply authority concerning the number of service boxes, more than one service box shall be permitted to be connected to a single consumer's service for a residential occupancy provided:

- (a) The subdivisions are made in a multiple meter mounting device rated at not more than 600 amperes and 150 volts to ground; and
- (b) The meter mounting device is located outdoors.

(3) For the application of Rule 6-104, each subdivision of the multiple meter mounting device in Subrule (2) shall be considered a consumer's service.

(4) Notwithstanding Subrule (1) for services greater than 3000 amperes, where the supply is not more than 150 volts-to-ground, up to three separate switchgear all located in the same electrical room are permitted in lieu of a single service switch or circuit breaker and each service subdivision shall be provided with ground fault protection.

6-202 Subdivision of Main Consumer's Service. In multiple occupancy and in single occupancy multi-rate service, each subdivision of the main consumer's service shall be provided with a separate service box, or equivalent multi-service equipment shall be used, but in the case of single occupancy multi-rate services where the main consumer's service overcurrent devices adequately protect any subdivision of the main consumer's service, the separate service box for the

subdivision so protected may be omitted if to do so is lawful under Rule 2-030.

6-204 Fuse Enclosures on Service Boxes. If a service box embodies one or more fuse holders, access to which may be had without opening the door, such receptacles and their fuses shall be completely enclosed by a separate door, spring-closed, or having a substantial catch.

6-205 Overcurrent Device Accessible to the Consumer. If a consumer's service supplies one branch circuit only and the service box containing the overcurrent device is to be locked or sealed, overcurrent devices accessible to the consumer shall be inserted in series with the consumer's service overcurrent device and on the load side of the meter, but they shall be of a smaller ampacity than the consumer's service overcurrent devices, unless the latter be not more than 15 amperes.

6-206 Consumer's Service Equipment Location.

(1) Service boxes or other consumer's service equipment shall be installed in an acceptable location and in compliance with applicable codes or standards under a rule or by-law of the supply authority concerning the location of service boxes or other service equipment and shall be:

- (a) Readily accessible or have the means of operation readily accessible;
- (b) Not located in coal bins, clothes closets, bathrooms, stairways, rooms in which the temperature normally exceeds 30°C, dangerous or hazardous locations, in locations where the headroom clearance is less than 2 metres, or in any similar undesirable locations;
- (c) Placed within the building being served, or alternatively, if the environmental conditions within the building are unsuitable, on the outside of a building or on a pole if that alternative placement is lawful under Rule 2-030 and the services boxes or other service equipment are,
 - (i) Protected from the weather, or be weatherproof; and
 - (ii) Protected from mechanical injury if less than 2 metres above ground; and
- (d) As close as practicable to the point where the consumer's service conductors enter the building.

(2) Notwithstanding Subrule (1)(a), where the service disconnecting means is subject to unauthorized operation, it is permitted to be rendered inaccessible by:

- (a) An integral locking device;
- (b) An external lockable cover; or

- (c) Locating the service box inside a separate building, room or enclosure.

6-207 Supports for Service Boxes. The back surface of a service box is not permitted to be in direct contact with, or within 50 millimetres through air, measured perpendicularly to the surface, of a material having a flame spread rating greater than 25, where the service box is located in a room or area of combustible construction.

6-208 Consumer's Service Conductors Considered to be Outside the Building. Raceways or cables shall be considered to be outside the building where they are:

- (a) Embedded in and encircled by not less than 50 millimetres of concrete or masonry where permitted by Section 12;
- (b) Directly buried in accordance with Rule 6-300 and located beneath a concrete slab not less than 50 millimetres thick; or
- (c) Run in a crawl space located underneath a structure provided the crawl space:
 - (i) Does not exceed 1.8 metres in height between the lowest part of the floor assembly and the ground or other surface below it;
 - (ii) is of non-combustible construction; and
 - (iii) is not used for the storage of combustible material.

6-210 Oil Switches and Oil Circuit Breakers Used as Service Switches

(1) Isolating switches shall be installed on the supply side and interlocked with oil switches and oil circuit breakers except in the case of metal clad equipment where the primary isolating device shall be considered to be the equivalent of an isolating switch or link.

(2) Where overcurrent trip coils are used for breakers, one shall be installed on each ungrounded conductor of the circuit or, if such installation is lawful under Rule 2-030 and the capacity of the transformers and the extent of the network supplying the service is sufficiently small, two trip coils, one in each phase of a four-wire two-phase ungrounded service, may be used.

6-212 Wiring Space in Enclosures

(1) Enclosures for circuit breakers and externally operated switches shall not be used as junction boxes, troughs, or raceways for conductors feeding through or tapping off to other apparatus.

(2) Notwithstanding Subrule (1), service equipment specifically designed to accommodate current monitoring devices are permitted.

6-214 Marking of Service Boxes. If there be more service boxes than one, each such box shall be labelled

in a conspicuous, legible and permanent manner to indicate clearly which installation or portion of an installation it controls.

Wiring Methods

6-300 Underground Consumer's Services

(1) Except where some other manner of installation or description of conductor is lawful under Rule 2-030, consumer's service conductors run underground to a building from an underground supply system or from a pole line shall be,

- (a) Installed in rigid conduit and be of a type for use in wet locations as indicated in Table 19; or
- (b) A single- or multiple-conductor cable for service entrance use below ground in accordance with Table 19 providing that:
 - (i) The installation is in accordance with Rule 12-012;
 - (ii) Rigid conduit is used for mechanical protection where portions are exposed to injury; and
 - (iii) The cable is without splice or joint from the point of connection at the supply service to the consumer's service equipment in the building; or
- (c) A single-conductor cable approved for direct burial in accordance with Table 19.

(2) Consumer's service conduit entering a building underground shall be suitably drained.

(3) Consumer's service conduit connected to an underground supply system shall be sealed with a suitable compound to prevent the entrance of moisture or gases.

(4) Consumer's service conductors to single family dwellings where practicable shall enter such dwellings above finished grade.

6-302 Consumer's Service Conductors

(1) Conductors of a consumer's service which are connected to an overhead supply service at any point above ground on a building shall be installed in rigid metal conduit or in one of the following ways if acceptable:

- (a) Other types of rigid conduit;
- (b) Busway;
- (c) Flexible metal conduit, the conductors being lead-sheathed;
- (d) Armoured lead-sheathed cable;
- (e) Mineral-insulated cable other than the light-weight type;

- (f) Aluminum-sheathed cable;
- (g) Type ACWU75 or Type ACWU90 cable;
- (h) Type AC90 cable;
- (i) Type TECK90 cable;
- (j) Service entrance cable, Type USE, provided that:
 - (i) It is protected by approved means if within 2 metres of the ground;
 - (ii) The voltage does not exceed 300 volts between conductors and 150 volts-to-ground;
 - (iii) It is supported at intervals not exceeding 1 metre; and
 - (iv) Except for Style RA75, it is mounted on insulating supports which hold it not less than 50 millimetres from a conducting surface if adjacent to the surface.

(2) That portion of the consumer's service conductors on the supply side of the service head run on the outside walls of buildings may be run as exposed wiring using types of conductors suitable for exposure to the weather.

(3) The length of consumer's service conductors beyond the service head shall be adequate to enable connection to the supply service conductors or to the conductors referred to in Subrule (2) with a minimum length of 750 millimetres and the conductors shall be provided with drip loops.

(4) Consumer's service conductors shall be not less than No. 10 AWG copper wire, nor less than No. 8 AWG aluminum wire.

(5) The insulation on consumer's service conductors shall be suitable for the temperatures which can be experienced in the particular locality.

6-304 Use of Mineral-Insulated and Aluminum-Sheathed Cable

(I) Mineral-insulated cable and aluminum-sheathed cable may be used for services as specified in Rule 6-302:

- (a) In a multi-conductor construction; or
- (b) In single-conductor construction in sizes larger than No. 4 AWG copper or aluminum.

(2) Mineral-insulated cable and aluminum-sheathed cable may be exposed and secured directly to the surface over which it is run, but subject to protection as specified in Rule 6-306(c).

6-306 Consumer's Service Raceways. Consumer's service raceways shall:

- (a) Contain no other than consumer's service conductors, and contain the conductors of no more

than one consumer's service or of such greater number of consumer's services as is lawful under Rule 2-030;

- (b) Be protected against mechanical damage as required by Rule 12-1032; and
- (c) If of circular cross-section, have an internal diameter not less than $\frac{3}{4}$ inch.

6-308 Use of Bare Neutral in Consumer's Service. The Neutral conductor of a consumer's service is permitted to be bare if this conductor is:

- (a) Made of copper and is run in a raceway;
- (b) Made of aluminum and is run above ground in a non-metallic or in an aluminum raceway;
- (c) Part of a busway or of a service entrance cable; or
- (d) Part of a neutral supported cable used in accordance with Rule 6-302(2).

6-310 Use of Joints and Splices in Consumer's Service Neutral Conductors. The neutral or identified conductor of a consumer's service shall be without joints or splices between the point of connection and the service box or equivalent consumer's service equipment, except that a joint may be made by means of an approved clamp or bolted connection in a meter mounting device or at the service head if exposed wiring is used in accordance with Rule 6-302(2).

6-312 Condensation in Consumer's Service Raceway

(1) Where condensation is likely to occur due to changes in temperature, consumer's service raceway or the equivalent shall be either effectively drained or sealed.

(2) The consumer's service raceway shall not be terminated on top of the service box except where drained outdoors.

Metering Equipment

6-400 Metering Equipment. Metering equipment includes any current and potential transformers as well as the associated measuring instruments.

6-402 Method of Installing Meter Loops

- (1) Meter loops shall be installed so that:
 - (a) Conductors between the service box and the meter are inaccessible to unauthorized persons;
 - (b) The wiring method is rigid conduit, flexible metal conduit, electrical metallic tubing, aluminum-sheathed cable, or armoured cable, except where equivalent protection is provided;

- (c) Spare conductors not less than 450 millimetres in length are provided at meter or current transformer connection points; and
- (d) A suitable fitting, or service box with meter back-plate is provided.

(2) Metering equipment shall be connected on the load side of the service box except that it may be connected on the supply side where:

- (a) No live parts or wiring are exposed;
- (b) The supply is ac and the potential does not exceed 300 volts between conductors;
- (c) The rating of the consumer's service does not exceed:
 - (i) 200 amperes for a meter mounting device; or
 - (ii) 600 amperes for a transformer rated meter mounting device located outdoors;
- (d) The conductors to the line side of the meter and the conductors from the load side of the meter are in separate raceways; and
- (e) Notwithstanding Paragraph (d) where an existing 'TEE' service is replaced or upgraded, a 'TEE' service is permitted to be utilized.

6-404 Enclosures for Instrument Transformers

(1) Instrument transformers used in conjunction with meters shall be installed in metal enclosures, except where access is only to authorized persons.

(2) The size of enclosures for instrument transformers shall be in compliance with the applicable code or standard under a rule or by-law of the supply authority concerning the size of enclosures.

(3) Enclosures for current transformers shall be installed on all services rated in excess of 200 amperes except where:

- (a) Current transformers are an integral part of service switchgear; or
- (b) The supply authority uses meters which do not require current transformers.

(4) Enclosures for instrument transformers shall have mounting plates or other acceptable provisions for securing of the transformers to the enclosures.

6-406 Disconnecting Provisions for Meters. In multiple occupancy and in single occupancy multi-rate service where individual metering is required the conductors to each meter shall be provided with one of the following:

- (a) A separate service box or service equipment; or
- (b) A sealable meter fitting.

6-408 Location of Meters

(1) Meters and metering equipment shall be installed in acceptable locations, in compliance with applicable codes and standards under a rule by-law of the supply authority concerning the location of meters and metering equipment and shall be:

- (a) Located as near as practicable to the service box except as provided for in Subrule (2);
- (b) Grouped where practicable;
- (c) Readily accessible;
- (d) Not located in coal bins, clothes closets, bathrooms, stairways, high ambient rooms, dangerous or hazardous locations, nor in any similar undesirable places; and
- (e) If mounted outdoors, of weatherproof construction or in weatherproof enclosures.

(2) Instrument transformers may be outside the consumer's premises and the meter inside the premises, providing the secondary leads between the instrument transformers and the meter terminal box or test links are continuous and are installed in the same manner as consumer's service conductors, with the exception that a service box with disconnecting switch is not required.

6-410 Space Required for Meters. The space provided for meters shall be of such dimensions as to be adequate for access, operation and maintenance and shall be in compliance with applicable codes and standards under a rule or by-law of the supply authority concerning the space provided for meters.

SECTION 8—CIRCUIT LOADING AND DEMAND FACTORS

Scope

8-000 Scope. This Section covers:

- (a) Conductor ampacities and equipment ratings required for consumer's services, feeders, and branch circuits; and
- (b) Branch circuit positions required for buildings for residential occupancy.

General

8-100 Current Calculations. When calculating currents which will result from loads, expressed in watts or volt-amperes, to be supplied by a low-voltage ac system, the voltage divisors to be used shall be 120, 208, 240, 277, 347, 416, 480, or 600 as applicable.

8-102 Voltage Drop

- (1) Voltage drop in an installation shall:

- (a) Be based upon the calculated demand load of the feeder or branch circuit;
- (b) Not exceed 5 per cent from the supply side of the consumer's service (or equivalent) to the point of utilization; and
- (c) Not exceed 3 per cent in a feeder or branch circuit.

(2) For the purposes of Subrule (1) the demand load on a branch circuit shall be the connected load, if known, otherwise 80 per cent of the rating of the overload or overcurrent devices protecting the branch circuit, whichever is smaller.

8-104 Maximum Circuit Loading

(1) The ampere rating of a consumer's service, feeder or branch circuit shall be the ampere rating of the overcurrent device protecting the circuit or the ampacity of the conductors, whichever is less.

(2) The calculated load for a circuit shall not exceed the ampere rating of the circuit.

(3) The calculated load for a consumer's service feeder or branch circuit shall be considered to be a continuous load unless it can be shown that in normal operation the load will not persist for:

- (a) A total of more than 1 hour in any two-hour period if the load does not exceed 225 amperes; or
- (b) A total of more than 3 hours in any six-hour period if the load exceeds 225 amperes.

(4) Where a service box, fusible switch, circuit breaker, or panelboard is marked for continuous operation at 100 per cent of the ampere rating of its overcurrent devices, the continuous load as determined from the calculated load shall not exceed:

- (a) 100 percent of the rating of the circuit where the ampacity of the conductors is based on Columns 2, 3, or 4 of Tables 2 or 4; or
- (b) 85 percent of the rating of the circuit where the ampacity of the conductors is based on Columns 2, 3, or 4 of Tables 1 or 3.

(5) Where a service box, fusible switch, circuit breaker, or panelboard is marked for continuous operation at 80 percent of the ampere rating of its overcurrent devices, the continuous load as determined from the calculated load shall not exceed:

- (a) 80 percent of the rating of the circuit where the ampacity of the conductors is based on Columns 2, 3, or 4 of Tables 2 or 4; or
- (b) 70 percent of the rating of the circuit where the ampacity of the conductors is based on Columns 2, 3, or 4 of Tables 1 or 3.

(6) If other derating factors are applied to reduce the conductor ampacity, the conductor size shall be the greater of that so determined or that determined by Subrules (4) or (5).

8-106 Use of Demand Factors

(1) The size of conductors and switches computed in accordance with this Section shall be the minimum used except that, if the next smaller standard size in common use has an ampacity not more than 5 per cent less than this minimum, the inspection department may, at its discretion, permit the use of the smaller size.

(2) In any case other than a service calculated in accordance with Rules 8-200 and 8-202, where the design of an installation is based on requirements in excess of those given in this Section, the service and feeder capacities shall be increased accordingly.

(3) Where two or more loads are so installed that only one can be used at any one time, the one providing the greatest demand shall be used in determining the calculated demand.

(4) Where it is known that electric space heating and air conditioning loads are installed and will not be used simultaneously, whichever is the greater load shall be used in calculating the demand.

(5) Where a feeder supplies loads of a cyclic or similar nature such that the maximum connected load will not be supplied at the same time, the ampacity of the feeder conductors may be based on the maximum load that may be connected at any one time.

(6) The ampacity of conductors of feeders or branch circuits shall be in accordance with the Section(s) dealing with the respective equipment being supplied.

(7) Notwithstanding the requirements of this Section, the ampacity of the conductors of a feeder, or of a branch circuit, need not exceed the ampacity of the conductors of the service, or of the feeder from which they are supplied.

(8) Where additional loads are to be added to an existing service or feeder, the augmented load may be calculated by adding the sum of the additional loads, with demand factors as permitted by this Code, to the maximum demand load of the existing installation as measured over the most recent 12 month period, but the new calculated load shall not exceed 80 per cent of the ampacity of the conductors.

8-108 Number of Branch Circuit Positions

(1) For a single dwelling, the panelboard shall provide space for at least the equivalent of the following number of 120 volt branch circuit overcurrent devices, including space for two 35 ampere double-pole overcurrent devices:

- (a) Sixteen—of which at least half shall be double-pole, where the calculated ampacity of the service or feeder conductors does not exceed 60 amperes;

(b) Twenty-four—of which at least half shall be double-pole;

(i) Where the calculated ampacity of the service or feeder conductors exceeds 60 amperes but does not exceed 100 amperes; or

(ii) Where the calculated ampacity of the service or feeder conductors exceeds 100 amperes but does not exceed 125 amperes and provision is made for a central electric furnace;

(c) Thirty—of which at least half shall be double-pole;

(i) Where the calculated ampacity of the service or feeder conductors exceeds 100 amperes but does not exceed 125 amperes; or

(ii) Where the calculated ampacity of the service or feeder conductors exceeds 125 amperes but does not exceed 200 amperes and provision is made for a central furnace;

(d) Forty—of which at least half shall be double-pole, where the required ampacity of the service or feeder conductors exceeds 125 amperes and the dwelling is not heated by a central furnace.

(2) Notwithstanding Subrule (1) sufficient spaces for overcurrent devices shall be provided in the panelboard for the two 35 amperes double-pole overcurrent devices and for all other overcurrent devices, and at least two additional spaces shall be left for future overcurrent devices.

(3) For a dwelling unit in an apartment or similar multi-dwelling building, the panelboard shall provide space for at least the equivalent of the following number of 120 volts branch circuit overcurrent devices, including space for one 35 amperes double-pole overcurrent device:

(a) Eight—where the required ampacity of the feeder conductors supplying the dwelling unit does not exceed 60 amperes;

(b) Twelve—where the required ampacity of the feeder conductors supplying the dwelling unit exceeds 60 amperes.

(4) Where space is provided in the panelboard specified in Subrules (2) and (3) for 120/240 volt three-wire branch circuits for which overcurrent protection shall be a minimum of 35 amperes, the fuseholders shall be installed at the time of installation of the panelboard.

8-110 Determination of Areas

(1) The living area designated in Rule 8-200 (1) (a) (i), and (ii) shall be determined from the outside dimensions of the ground floor of the dwelling plus 75 per cent of the basement area based on the inside

dimensions, plus any area which might normally be used for living purposes on the upper floors.

(2) Where necessary to obtain outside dimensions for dwelling units of row housing they shall be measured from the outside faces of walls where possible and from the inside faces where outside faces are not available.

(3) The living area designated in Rule 8-202 (1) (a), (i), (ii), and (iii) shall be based on the interior dimensions of each dwelling unit.

Services and Feeders

8-200 Single Dwellings

(1) The minimum ampacity of service conductors or of feeder conductors supplying a single dwelling shall be based on the greater of Paragraph (a) or (b):

(a) (i) A basic load of 5,000 watts for the first 90 square metres of living area (see Rule 8-110); plus

(ii) An additional 1,000 watts for each 90 square metres or portion thereof in excess of 90 square metres; plus

(iii) Any electric space heating loads provided for with demand factors as permitted in Section 62 plus any air conditioning loads provided for with individual ratings in excess of 1,500 volt-amperes with a demand factor of 100 per cent, subject to Rule 8-106(4); plus

(iv) Any electric range load provided for as follows: 6,000 watts for a single range having a rating of 12 kilowatts or less, plus 40 per cent of the amount by which the rating of the range exceeds 12 kilowatts; plus

(v) Any electric water heaters for swimming pools, hot tubs, or spas with a demand factor of 100 per cent; plus

(vi) Any loads provided for in addition to those outlined in Paragraphs (i) to (iv) inclusive at 25 per cent of the rating of each load with a rating in excess of 1,500 watts if an electric range has been provided for, or 100 per cent of the rating of each load with a rating in excess of 1,500 watts up to a total of 6,000 watts, plus 25 per cent of the load in excess of 6,000 watts if an electric range has not been provided for.

(b) (i) 100 amperes where the floor area, exclusive of basement floor area, based on outside dimensions, subject to Rule 8-110 (2), is 80 square metres or more; or

(ii) 60 amperes where the floor area, exclusive of basement floor area, based on outside

dimensions, subject to Rule 8-110(2), is less than 80 square metres.

(2) The minimum ampacity of service conductors or of feeder conductors from a main service supplying two or more dwelling units of row-housing shall be based on:

- (a) Subrule (1), excluding any electric space heating loads and any air conditioning loads, with application of demand factors to the loads as required by Rule 8-202 (2) (a) (i) to (v) inclusive; plus
- (b) The requirements of Rule 8-202(2)(b), (c) and (d).

(3) The total load calculated in accordance with either Subrule (1) or (2) shall not be considered to be a continuous load for application of Rule 8-104.

(4) The demand calculation made under Subrule (1) shall always include provision for at least one electric range.

8-202 Apartments and Similar Multi-Dwelling Buildings

(1) The minimum ampacity of service conductors or of feeder conductors from a main service supplying loads in dwelling units shall be the greater of Paragraphs (a) or (b):

- (a) (i) A basic load of 3,500 watts for the first 45 square metres of living area (see Rule 8-110); plus
- (ii) An additional 1,500 watts for the second 45 square metres or portion thereof; plus
- (iii) An additional 1,000 watts for each additional 90 square metres or portion thereof in excess of the initial 90 square metres; plus
- (iv) Any electric space heating loads provided for with demand factors as permitted in Section 62 plus any air-conditioning loads provided for with individual ratings in excess of 1,500 volt-amperes with a demand factor of 100 per cent, subject to Rule 8-106(4); plus
- (v) Any electric range load provided for as follows: 6,000 watts for a single range having a rating of 12 kilowatts or less, plus 40 per cent of the amount by which the rating of the range exceeds 12 kilowatts; plus
- (vi) Any loads provided for in addition to those outlined in Subparagraphs (i) to (v) inclusive at 25 per cent of the rating of each load with a rating in excess of 1,500 watts if an electric range has been provided for, or 100 per cent of the rating of each load with a rating in

excess of 1,500 watts up to a total of 6,000 watts plus 25 per cent of the load in excess of 6,000 watts if an electric range has not been provided for;

- (b) 60 amperes.

(2) The total load calculated in accordance with Subrule (1) shall not be considered to be a continuous load for the application of Rule 8-104.

(3) The minimum ampacity of service conductors or of feeder conductors from a main service supplying two or more dwelling units shall be based on Subrule (1) and the following:

- (a) Excluding any electric space heating loads and any air conditioning loads, the load shall be considered to be:
 - (i) 100 per cent of the load in the unit having the heaviest load; plus
 - (ii) 65 per cent of the sum of the loads in the next two units having the next heaviest load; plus
 - (iii) 40 per cent of the sum of the loads in the next two units having the next heaviest load; plus
 - (iv) 25 per cent of the sum of the loads in the next 15 units having the next heaviest load; plus
 - (v) 10 per cent of the sum of the loads in the remaining units;

(b) If electric space heating is used, the sum of all the space heating loads, as determined in accordance with the requirements of Section 62, shall be added to the load determined in accordance with Paragraph (a), subject to Rule 8-106(4);

(c) If air-conditioning is used, the amount by which the sum of all the air-conditioning loads exceed 1,500 volt amperes shall be added, with a demand factor of 100 per cent, to the load determined in accordance with Paragraphs (a) and (b), subject to Rule 8-106(4);

(d) In addition, any lighting, heating and power loads not located in dwelling units shall be added with a demand factor of 75 per cent.

(4) The ampacity of feeder conductors from a service supplying loads not located in dwelling units shall be not less than the rating of the equipment installed with demand factors as permitted by this Code.

(5) Where an electric range is not provided, the minimum ampacity determination in Subrules (1) and (3) shall be made on the basis of a range rated at 12 kilowatts being installed.

8-204 Schools

(1) The minimum ampacity of service or feeder conductors shall be based on the following:

- (a) A basic load of 50 watts per square metre of classroom area; plus
- (b) 10 watts per square metre of the remaining area of the building based on the outside dimensions; plus
- (c) Electric space heating, air-conditioning and power loads based on the rating of the equipment installed.

(2) Demand factors may be applied as follows:

- (a) For a building with an area up to and including 900 square metres based on the outside dimensions:
 - (i) As permitted in Section 62 for any electric space heating loads provided for; and
 - (ii) 75 per cent for the balance of the load;
- (b) For a building with an area exceeding 900 square metres based on the outside dimensions:
 - (i) As permitted in Section 62 for any electric space heating loads provided for; and
 - (ii) The balance of the load may be divided by the number of square metres to obtain a load-per-square-metre rating, and the demand load may be considered to be the sum of:
 - (A) 75 per cent of the load per square metre multiplied by 900; and
 - (B) 50 per cent of the load per square metre multiplied by the area of the building in excess of 900 square metres.

8-206 Hospitals

(1) The minimum ampacity of service or feeder conductors shall be based on the following:

- (a) A basic load of 20 watts per square metre of the area of the building based on the outside dimensions; plus
- (b) 100 watts per square metre for high intensity area, such as operating rooms; plus
- (c) Electric space heating, air-conditioning and power loads based on the rating of the equipment installed.

(2) Demand factors may be applied as follows:

- (a) For a building with an area up to and including 900 square metres based on the outside dimensions:

- (i) As permitted in Section 62 for any electrical space heating loads provided for; and

- (ii) 80 per cent for the balance of the load;

- (b) For a building with an area exceeding 900 square metres based on the outside dimensions:

- (i) As permitted in Section 62 for any electric space heating loads provided for; and

- (ii) The balance of the load may be divided by the number of square metres to obtain a load-per-square-metre rating and the demand load may be considered to be the sum of:

- (A) 80 per cent of the load per square metre multiplied by 900; and

- (B) 65 per cent of the load per square metre multiplied by the area of the building in excess of 900 square metres.

8-208 Hotels, Motels, Dormitories and Buildings of Similar Occupancy

(1) The minimum ampacity of service or feeder conductors shall be based on the following:

- (a) A basic load of 20 watts per square metre of the area of the building based on the outside dimensions; plus
- (b) Lighting loads for special areas such as ball-rooms, based on the rating of the equipment installed; plus
- (c) Electric space heating, air-conditioning and power loads based on the rating of the equipment installed.

(2) Demand factors may be applied as follows:

- (a) For a building with an area up to and including 900 square metres based on the outside dimensions:

- (i) As permitted in Section 62 for any electric space heating loads provided for; and

- (ii) 80 per cent for the balance of the load;

- (b) For a building with an area exceeding 900 square metres based on the outside dimensions:

- (i) As permitted in Section 62 for any electric space heating loads provided for; and

- (ii) The balance of the load may be divided by the number of square metres to obtain a load-per-square-metre rating and the

demand load may be considered to be the sum of:

- (A) 80 per cent of the load per square metre multiplied by 900; and
- (B) 65 per cent of the load per square metre multiplied by the area of the building in excess of 900 square metres.

8-210 Other Types of Occupancy. The minimum ampacity of service or feeder conductors for the types of occupancies specified in Table 14 shall be based on the following:

- (a) A basic load to be calculated on the basis of watts per square metre required by Table 14 for the area served based on the outside dimensions, with application of demand factors as indicated therein; plus
- (b) Special loads such as electric space heating, air-conditioning, power loads, show window lighting, stage lighting, etc., based on the rating of the equipment installed with such demand factors as are permitted by this Code.

8-212 Special Lighting Circuits. Where a panel-board is supplying special types of lighting, such as exit lights or emergency lights, which may be located throughout a building so that it is not possible to calculate the area served, the connected load of the circuits involved shall be used in determining a feeder size.

Branch Circuits

8-300 Branch Circuits Supplying Electric Ranges

- (1) Conductors of a branch circuit supplying a range in a residential occupancy shall be considered as having a demand of:
- (a) 8 kilowatts where the rating of the range does not exceed 12 kilowatts; or
 - (b) 8 kilowatts plus 40 per cent of the amount that the rating of the range exceeds 12 kilowatts.
- (2) For the purpose of Subrule (1) two or more separate built-in cooking units may be considered as one range.
- (3) For ranges or cooking units installed in commercial, industrial and institutional establishments, the demand shall be considered as not less than the rating.
- (4) The demand loads given in this Rule shall not apply to cord-connected hot-plates, rangettes or other appliances.

8-302 Connected Loads

- (1) For show window lighting installations, the demand load shall be determined with reference to the measurement along the base of the window and on the assumption that the requirement will be at least 650 watts per metre or, where circumstances warrant, such lower number of watts per metre as is lawful under Rule 2-030.
- (2) Notwithstanding Rule 8-104(3), a load of a cycling or intermittent nature can be classified as continuous.
- (3) The total connected load of a branch circuit feeding one or more units of data processing equipment shall be considered to be a continuous load for the application of Rule 8-104.

(4) Branch circuits supplying loads which are not specifically permitted to have a lower demand factor in this or other Rules of this Code shall not be allowed a demand factor of less than 100 per cent or such lower percentage as is lawful under Rule 2-030.

8-304 Minimum Number of 15 Ampere Branch Circuits. The minimum number of 15 ampere branch circuits to be provided for in an installation shall be calculated on the basis of a maximum loading of 12 amperes for each such branch circuit.

Automobile Heater Receptacles

8-400 Branch Circuits and Feeders Supplying Automobile Heater Receptacles

- (1) In the application of this Rule, the following definitions apply:
- (a) "Restricted" means restricted to the engine block heater only and the use of an in-car heater is not permitted; and
 - (b) "Controlled" means controlled by a sequencing time switch, peak load type of controller, or other acceptable means of control.
- (2) At least one branch circuit protected by an over-current device rated or set at not more than 15 amperes shall be provided for each duplex receptacle or for every two single receptacles.
- (3) Where the loading in each parking space or stall is not restricted or controlled, a separate branch circuit shall be provided for each parking space or stall and the feeder or service conductor shall be considered as having a demand load as follows:

No. of Automobile Spaces or Stalls	Demand Load Per Space or Stall (Watts)
First..... 30	1,200
Next..... 30	1,000
All Over..... 60	800

(4) Where branch circuits are provided for parking spaces or stalls in which the loading is restricted or

controlled, the feeder or service conductors shall be considered as having a demand load as follows:

No. of Automobile Spaces or Stalls	Demand Load Per Space or Stall (Watts)	
First.....	30	650
Next.....	30	550
All Over.....	60	450

(5) Parking lots which may be fully occupied under normal usage shall be assigned a greater demand load per space or stall.

SECTION 10—GROUNDING AND BONDING

Scope and Object

10-000 Scope

(1) This Section covers the protection of electrical installations by grounding and bonding.

(2) Insulating, isolating, and guarding may be used as acceptable means of affording supplemental protection to grounding or, where permitted in this Code, as a suitable alternative.

10-002 Object. Grounding and bonding as required by this Code shall be done in such a manner as to serve the following purposes:

- (a) To protect life from the danger of electric shock, and property from damage, by bonding to ground, non-current-carrying metal systems;
- (b) To limit the voltage upon a circuit when exposed to higher voltages than that for which the circuit is designed;
- (c) In general to limit ac circuit voltages-to-ground to 150 volts or less on circuits supplying interior wiring systems;
- (d) To facilitate the operation of electrical apparatus and systems; and
- (e) To limit the voltage on a circuit which might otherwise occur through exposure to lighting.

System and Circuit Grounding

10-100 Circuits. Circuits shall be grounded as necessary in accordance with this Section.

10-102 Two-Wire Direct-Current Systems

(1) Two-wire direct-current systems supplying interior wiring and operating at not more than 300 volts or not less than 50 volts between conductors shall be grounded, unless such system is used for supplying industrial equipment in limited areas and the circuit is equipped with a ground detector.

(2) If a two-wire direct-current system operates at more than 300 volts between conductors and a neutral point can be established so that the maximum difference of voltage between the neutral point and any other point on the system does not exceed 300 volts, the neutral may be grounded.

10-104 Three-Wire Direct-Current System. The neutral conductor of all 3-wire direct-current systems supplying interior wiring shall be grounded.

10-106 Alternating-Current Systems

(1) Except as otherwise provided for in this Code, alternating-current systems shall be grounded if:

- (a) By so doing, their maximum voltage-to-ground does not exceed 150 volts; or
- (b) The system incorporates a neutral conductor.

(2) Wiring systems supplied by an ungrounded supply shall be equipped with a suitable ground detection device to indicate the presence of a ground fault.

10-108 Electric Arc Furnace Circuits. Circuits supplying electric arc furnaces may, but need not, be grounded.

10-110 Electric Crane Circuits. Circuits supplying electric cranes operating over combustible fibres in Class III hazardous locations shall not be grounded.

10-112 Isolated Circuits. Special circuits may be supplied from the ungrounded secondaries of transformers having the primary and secondary windings separated by a grounded metal shield if:

- (a) Installed under the provisions of other sections of this Code; or
- (b) This is required to recognize a particular accident or fire hazard.

10-114 Circuits of Less Than 50 Volts. Circuits of less than 50 volts shall be grounded:

- (a) Where run overhead outside of buildings; or
- (b) Where supplied by transformers energized from:
 - (i) Systems of more than 150 volts-to-ground; or
 - (ii) Ungrounded systems unless the circuits are provided in accordance with Rule 10-112.

10-116 Instrument Transformer Circuits

(1) Where primary windings of current and voltage instrument transformers are connected to circuits of 300 volts or more to ground, the secondary circuits of the transformer shall be grounded.

(2) Where the transformers are on switchboards, the secondary circuits shall be grounded irrespective of the voltage of the circuits.

Grounding Connections for Systems and Circuits

10-200 Current Over Grounding and Bonding Conductors

(1) Where wiring systems, circuits, electrical equipment, arresters, cable armour, conduit, and other metal raceways are grounded as a protective measure, the grounding shall be arranged so that there is no objectionable passage of current through the grounding conductors.

(2) The temporary currents which are set up under accidental conditions while the grounding conductors are performing their intended protective functions shall not be considered as objectionable.

(3) Where through the use of multiple grounds an objectionable flow of current occurs through the grounding conductor:

- (a) One or more of the grounds shall be abandoned;
- (b) The location of the grounds shall be changed;
- (c) The continuity of the conductor between the grounding connections shall be suitably interrupted; or
- (d) Other effective action shall be taken to limit the current.

10-202 Grounding Connections for Direct-Current Systems. Direct-current systems which are to be grounded shall have the grounding connections made at one or more supply stations but not at individual services nor elsewhere on interior wiring.

10-204 Grounding Connections for Alternating-Current Systems

(1) Alternating-current circuits which are to be grounded shall have:

- (a) A connection to a grounding electrode at each individual service, except as provided for in Rule 10-200;
- (b) The grounding connection made on the supply side of the service disconnecting means either in the service box or in other acceptable service equipment, except for areas or buildings housing livestock, the grounding connection is permitted to be made within another device specifically intended for the purpose located in the grounding circuit and not more than 3 metres from the service equipment;
- (c) At least one additional connection to a grounding electrode at the transformer or elsewhere; and

(d) No connection between the grounded circuit conductor on the load side of the service disconnecting means and the grounding electrode, except as provided for in Rule 10-208.

(2) Where the system is grounded at any point, the grounded conductor shall be run to each individual service and be not smaller than the required grounding conductor specified in Table 17 and where the grounded circuit conductor also serves as the neutral conductor, the requirements of Rule 4-022 shall be met.

(3) Where service conductors are run in parallel in separate raceways, and the system is grounded at any point, a grounded conductor shall be run in each raceway and notwithstanding the requirements of Rule 12-108, the total ampacity of all grounded conductors is permitted to be not less than equivalent to the ampacity of the conductor required by Rule 4-022(3).

(4) Notwithstanding Subrule (1), for circuits that are supplied from two sources in a common enclosure or grouped together in separate enclosures and employing a tie, a single grounding electrode connection to the tie point of the grounded circuit conductors from each power source is permitted.

10-206 Grounding Connections for Isolated Systems. For a wiring system or circuit which is required to be grounded, and which is not conductively connected to an exterior distribution system, the grounding connection shall be made at the transformer, or other source of supply, or on the supply side of the first switch controlling the system, and:

- (a) The grounding conductor shall be not smaller than that specified in Table 17; and
- (b) If two or more systems are employed, a common system grounding conductor shall be installed unless separate grounding is supplied for each such system, in which case the grounding for the individual systems shall be interconnected.

10-208 Grounding Connections for Two or More Buildings or Structures Supplied from a Single Service

Where two or more buildings or structures are supplied from a single service:

- (a) The grounded circuit conductor at each of the buildings or structures shall be connected to a grounding electrode and bonded to the non-current-carrying metal parts of the electrical equipment; or
- (b) Except for buildings housing livestock, the non-current-carrying metal parts of the electrical equipment in or on the building or structure are permitted to be bonded to ground by a bonding conductor run with the feeder or branch circuit conductors.

10-210 Conductor to be Grounded

(1) For alternating-current wiring systems, the conductor to be grounded shall be as follows:

- (a) Single-phase, 2-wire—the identified conductor;
- (b) Single-phase, 3-wire—the identified neutral conductor;
- (c) Multi-phase systems having one wire common to all phases—the identified neutral conductor;
- (d) Multi-phase systems having one phase grounded—the identified conductor;
- (e) Multi-phase systems in which one phase is used as in Paragraph (b)—the identified conductor.

(2) In multi-phase systems in which one phase is used as a single-phase 3-wire system, only one phase shall be grounded.

Conductor Enclosure Bonding

10-300 Enclosure for Service Conductors. Metal service raceways, service cable sheaths, or armouring shall be bonded to ground.

10-302 Other Conducting Enclosures

(1) Metal enclosures for conductors, other than those referred to in Rule 10-300, shall be bonded to ground except:

- (a) In runs of less than 7.5 metres that are free from probable contact with ground, grounded metal, metal lath, or conductive thermal insulation, and that, where within reach from grounded surfaces, are guarded against contact by persons; and
- (b) Runs used for physical protective sleeving of less than 1.5 metres in length, where the installation method is such that it is improbable they will become energized.

(2) Where single-conductor metal sheathed or armoured cables are installed in raceways of insulating material, in order to prevent the flow of sheath currents in accordance with Rule 4-008(1)(c), the cables shall:

- (a) Be in separate raceways or supplied with suitable continuous non-conductive jackets;
- (b) Have their sheaths or armour bonded together and bonded to ground at the supply end; and
- (c) Thereafter have their sheaths or armour isolated from each other and from ground.

Equipment Bonding

10-400 Fixed Equipment, General. Exposed, non-current-carrying metal parts of fixed equipment shall be bonded to ground if the equipment is:

- (a) Supplied by means of metal-enclosed wiring;
- (b) Supplied by means of wiring which contains a grounding conductor;
- (c) Located in a wet location and is not isolated;
- (d) Located within reach of a person who can make contact with any grounded surface or object;
- (e) Located within reach of a person standing on the ground;
- (f) In a hazardous location;
- (g) In electrical contact with metal, metal foil or metal lath; or
- (h) To operate with any terminal at more than 150 volts-to-ground, except:

- (i) Enclosures for switches or circuit breakers that are accessible to qualified persons only;
- (ii) Metal frames of electrically heated devices that are permanently and effectively insulated from the ground where the operation is lawful under Rule 2-030, and
- (iii) Transformers mounted on wooden poles at a height of more than 2.5 metres from the ground where acceptable and where in compliance with applicable codes and standards under a rule or by-law of the supply authority concerning the bonding and grounding of transformers.

10-402 Fixed Equipment, Specific

(1) Exposed, non-current-carrying metal parts of the following kinds of fixed equipment shall be grounded:

- (a) Frames of motors operating at more than 30 volts;
- (b) Cases of controllers for motors;
- (c) Electric equipment of elevators and cranes;
- (d) Electrical equipment in garages, theatres and motion picture studios, except pendant lamp-holders on circuits of not more than 150 volts-to-ground;
- (e) Motion-picture projection equipment;
- (f) Electric signs and associated equipment;
- (g) Generator frames in an electrically-operated organ, unless the generator is effectively insulated from the ground;
- (h) Switchboard frames and structures supporting switching equipment, except that frames of

direct-current, single polarity switchboards are not required to be bonded to ground if effectively insulated;

- (i) X-ray equipment used in therapy;
- (j) Equipment supplied by Class 1 and 2 circuits falling within the scope of Section 16 where such circuits require grounding to meet the intent of Rules 10-100 to 10-114.
- (k) Data processing equipment.

(2) All non-current-carrying metal parts of lighting fixtures and associated equipment that could become energized shall be bonded to ground if they are:

- (a) Exposed; or
- (b) Not exposed, but are in contact with exposed metal parts.

(3) Electrical equipment, such as livestock waterers, installed in feedlots and open feeding areas shall be bonded to ground by a separate stranded copper bonding conductor of at least No. 6 AWG terminating at a point where the branch circuit receives its supply.

10-404 In Non-Metallic Wiring Systems

(1) Where a non-metallic wiring system is used:

- (a) A ground connection shall be provided at all outlets; and
- (b) Metal boxes shall be grounded.

(2) Where conductors are run in parallel in multiple raceways as permitted in Rule 12-108, a grounding conductor shall be run in each raceway.

(3) All interior metal gas piping which may become energized shall be made electrically continuous and shall be bonded in accordance with the requirements of Subrule (2).

10-406 Non-electrical Equipment

(1) The following metal parts of non-electrical equipment shall be bonded to ground:

- (a) Frames and tracks of electrically operated cranes;
- (b) The metal frame of a non-electrically driven elevator car to which electric conductors are attached;
- (c) Hand operated metal shifting ropes or cables of electric elevators;
- (d) Metal enclosures such as partitions, grill work, etc., around equipment carrying voltages in excess of 750 volts between conductors.

(2) Where a metallic water supply system is used

in connection with premises supplied with electric power:

- (a) The water supply system shall be bonded to the system grounding conductor by means of a copper bonding conductor not smaller than No. 6 AWG; and
- (b) The bonding conductor shall be attached to the water supply system:
 - (i) At a location as near to the consumer's electrical service entrance as is practicable; and
 - (ii) At a location where a sub-feeder enters a barn or other building.

(3) Each metallic waste water piping system in the building shall be grounded by bonding it to the interior metallic water supply system by a copper bonding jumper of not less than No. 6 AWG.

(4) All interior metal gas piping which may become energized shall be made electrically continuous and shall be bonded in accordance with the requirements of Subrule (2).

(5) In buildings housing livestock all metallic water pipes, stanchions, water-bowls, vacuum lines and other metals shall be grounded by a separate stranded copper grounding conductor not smaller than No. 6 AWG.

(6) In rooms containing data processing and similar systems, having raised floors with metal supports and wiring under the raised floors in accordance with Rule 12-020(1), at least every fourth pedestal shall be bonded to ground by a minimum No. 6 AWG copper conductor.

10-408 Portable Equipment

(1) Exposed non-current-carrying metal parts of portable equipment shall be bonded to ground under the following conditions:

- (a) When used in hazardous locations unless supplied through an isolating transformer having an ungrounded secondary of not over 50 volts;
- (b) When the equipment is used in damp or wet locations, or by persons standing on the ground on metal floors, inside metal tanks or boilers, except where the equipment is supplied through an isolating transformer having an ungrounded secondary of not more than 50 volts;
- (c) When the equipment operates with any terminal at more than 150 volts-to-ground except,
 - (i) Motors where guarded; or
 - (ii) By special permission, the metal frames of electrically heated appliances that are impractical to ground but which are per-

manently and effectively insulated from ground.

(2) Exposed non-current-carrying metal parts of enclosures of portable X-ray equipment used in therapy shall be bonded to ground except where the failure to bond to ground is lawful under Rule 2-030.

(3) Notwithstanding Subrules (1) and (2), tools and appliances having double insulation or equivalent protection, and so marked, need not be bonded to ground.

(4) Notwithstanding Subrule (1), tools and appliances required to have provision for grounding need not be bonded to ground:

- (a) When used only in a location where reliable grounding cannot be obtained; and
- (b) They are supplied from a double insulated portable ground fault circuit interrupter of the Class A type.

10-410 Instrument Transformer Cases. The cases and frames of instrument transformers shall be bonded to ground but where the primary circuit of a current transformer is not over 150 volts-to-ground and the transformer is used solely to supply current to meters, the case or frame of the current transformer need not be bonded to ground.

10-412 Cases of Instruments, Meters, and Relays—Operating Voltage 750 Volts or Less

- (1) Where instruments, meters, and relays:
 - (a) Are not located on switchboards;
 - (b) Operate with windings or working parts at between 300 and 750 volts-to-ground; and
 - (c) Are accessible to other than qualified persons;

the cases and other exposed metal parts of the instruments, meters, and relays shall be bonded to ground.

- (2) Where instruments, meters, and relays:
 - (a) Operate with windings or working parts at 750 volts or less to ground;
 - (b) Are on switchboards having no live parts on the front of the panels; and
 - (c) Are operated from current and potential transformers or are connected directly in the circuit;

the cases of the instruments, meters, and relays shall be bonded to ground.

- (3) Where instruments, meters, and relays:
 - (a) Operate with windings or working parts at 750 volts or less to ground;

(b) Are on switchboards having exposed live parts on the front of the panels; and

(c) Operate from current and potential transformers or are connected directly in the circuit;

the cases of the instruments, meters, and relays shall not be bonded to ground and, where the voltage-to-ground exceeds 150 volts, mats of insulating rubber or other suitable floor-insulation shall be provided for the operator.

10-414 Cases of Instruments, Meters, and Relays—Operating Volting Over 750 volts. Where instruments meters and relays have current-carrying parts over 750 volts-to-ground, they shall be isolated by elevation or protected by acceptable barriers, grounded metal or insulating covers, or guards and their cases shall not be bonded to ground, except that in electrostatic ground detectors the internal ground segments of the instrument shall be connected to the instrument case and bonded to ground, and the detector shall be isolated by elevation.

Methods of Grounding

10-500 Effective Grounding. The path to ground from circuits, equipment, or conductor enclosures shall be permanent and continuous and shall have ample ampacity to conduct safely any currents liable to be imposed on it, and shall have impedance sufficiently low to limit the voltage above ground, and to facilitate the operation of the over-current devices in the circuit.

10-502 Common Grounding Conductor. The grounding conductor for circuits is permitted to be used as a bonding conductor for equipment, conduit, and other metal raceways, or enclosures for conductors, including service conduit or cable sheath and service equipment.

10-504 Common Grounding Electrode. Where the alternating-current system is connected to a grounding electrode in or at a building as specified in Rules 10-204 and 10-208, the same electrode may be used to ground conductor enclosures and equipment in or on that building.

10-506 Underground Service

(1) Where an underground service cable is served from a continuous underground metal sheathed cable system and the sheath or armour of the service cable is connected to the underground system, the sheath or armour of the service cable is not required to be bonded to ground at the building if it is insulated from the interior conduit or piping.

(2) Where a metal sheathed service cable is served from a continuous underground metal sheathed cable system, is bonded to the underground system and is contained in an underground service conduit, the conduit is not required to be bonded to ground at the

building if it is insulated from the interior conduit or piping.

10-508 Short Section of Raceway. Isolated sections of metal raceway or cable armour, if required to be bonded to ground shall preferably be bonded to ground by connecting to other grounded raceway or armour, but are permitted to be bonded to ground in accordance with Rule 10-510.

10-510 Fixed Equipment

(1) Fixed equipment as specified in Rules 10-400 and 10-402 shall, subject to the provisions of Rule 10-802 be bonded to ground in one of the following ways:

- (a) An effective metallic connection to grounded metal raceways, metal sheath, or cable armour except:
 - (i) Armour as specified in Subrules (2) and (3), or
 - (ii) Sheathed of mineral-insulated cable when of stainless steel as specified in Subrule (4);
- (b) A bonding conductor which is run with circuit conductors as a part of a cable assembly and which may be uninsulated, but, if provided with an individual covering, the covering shall be finished to show a green colour or a green/yellow combination.
- (c) A separate bonding conductor installed in the same manner as a bonding conductor for conduit and the like; or
- (d) Other acceptable means where such means are lawful under Rule 2-030.

(2) The armour of those constructions of armoured cables incorporating a bonding conductor shall not be considered as fulfilling the requirements of a bonding conductor for the purpose of this Rule, and the bonding conductor provided in these cables shall comply with Subrule (1)(b).

(3) The armour of flexible metal conduit and liquid-tight flexible metal conduit shall not be considered as fulfilling the requirements of a bonding conductor for the purposes of this Rule, and a separate bonding conductor shall run within the conduit.

(4) The sheath of mineral-insulated cable having a stainless steel sheath shall not be considered as fulfilling the requirements of a bonding conductor for the purposes of this Rule and bonding shall be by one of the methods specified in Subrule (1)(b), (c) or (d).

10-512 Equipment on Structural Metal. Electrical equipment secured to and in contact with the grounded structural metal frame of a building, shall be deemed to be bonded to ground.

10-514 Portable Equipment. Where the non-current-carrying metal parts of portable equipment are required to be bonded to ground, the bonding shall be obtained by:

- (a) Connection of the equipment to a permanent outlet provided with a grounding medium as required by Rule 10-510 for fixed equipment;
- (b) The use of one of the following means to obtain continuity between the non-current-carrying metal parts of the equipment and the permanent grounding medium:
 - (i) The metal enclosure of the conductors feeding the equipment; or
 - (ii) A bare conductor, or a green, or green yellow combination, coloured conductor run with the circuit conductors in flexible cords or power supply cables; and
- (c) The use of an approved multi-prong plug by which grounding is automatically established.

10-516 Pendent Equipment

(1) Where the non-current-carrying metal parts of pendent equipment are required to be bonded to ground, the bonding shall be obtained by:

- (a) Connection of the equipment to a permanent outlet provided with a grounding medium as required by Rule 10-510 for fixed equipment; and
- (b) The use of one of the following means to obtain continuity between the non-current-carrying metal parts of the equipment and the permanent grounding medium:
 - (i) The metal enclosure of the conductors feeding the equipment; or
 - (ii) A bare conductor, or a green, or green yellow combination, coloured conductor run with the circuit conductors in flexible cords or power supply cables.

(2) Chains that support electric equipment shall not be used as a means of bonding to ground.

10-517 Pad Mounted Transformers. All exposed non-current-carrying metal parts of pad mounted transformers, their enclosures, etc., shall be grounded by a ground electrode consisting of four or more $\frac{3}{4}$ inch \times 10 foot ground rods driven so as to be not less than 2 metres apart, and suitably interconnected with an annealed copper conductor not smaller than No. 2/0 AWG to form a complete loop around the equipment at a distance of at least 1 metre from any part of the equipment; and

- (a) The ground electrode shall be connected to the non-current-carrying metal parts by a copper conductor of:
 - (i) Not less than No. 2/0 AWG where the

available short circuit current is 1,000 amperes or more; or

- (ii) Not less than No. 2 AWG where the available short circuit current is less than 1,000 amperes; and
- (b) Notwithstanding Paragraph (a) (ii), any grounding conductor that enters the earth shall be not smaller than No. 2/0 AWG;
- (c) System and equipment grounding conductors shall be effectively disconnected.

10-518 Grounding Equipment to Circuit Conductor

(1) The grounded circuit conductor on the load side of the connection to ground shall not be used for bonding equipment, cable armour, or metal raceways to ground unless the use is lawful under Rule 2-030.

(2) The grounded service conductor on the supply side of the service disconnecting means is permitted to be used for bonding to ground the metal meter mounting devices and service equipment, and where the grounded service conductor passes through the meter mounting device it shall be bonded to the meter mounting device.

(3) Notwithstanding Subrule (2), the bonding of the meter mounting device to the grounded service conductor is not permitted at a building where a device is installed in the grounding conductor as permitted in Rules 10-204(1)(b) and 10-806(1).

10-520 Electrolytic Type Water Heaters. Electrolytic type water heaters connected to a grounded single-phase ac circuit may be used if:

- (a) A copper grounding conductor of a size given in the second column of Table 16 but in no case less than No. 12 AWG connects the frame of the heater to the grounded conductor of the circuit at the service box; and
- (b) The grounded conductor of the circuit is grounded at the service box to a grounding system.

Bonding Methods

10-600 Clean Surfaces. Where a non-conductive protective coating such as paint or enamel is used on the equipment, conduit, couplings or fittings, such coating shall be removed from threads and other contact surfaces in order to ensure a good electrical connection.

10-602 Bonding at Service Equipment. The electrical continuity of the grounding circuit at the service equipment shall be assured by one of the means given in Rule 10-604 for the following equipment and enclosures if metallic:

- (a) Service raceways or service armour or sheaths;

- (b) All service equipment enclosures containing service entrance conductors including meter fittings, boxes, or the like, interposed in the service raceway or armour;

- (c) Any conduit or armour which forms part of the grounding conductor to the service raceway.

10-604 Means of Assuring Continuity at Service Equipment. Electrical continuity at service equipment shall be assured by:

- (a) The use of threaded couplings and threaded bosses on enclosures with joints made up tight where metallic rigid conduit is used;

- (b) The use of threadless couplings made up tight where electrical metallic tubing is used;

- (c) The use of bonding jumpers meeting the requirements of Rules 10-614 and 10-906; or

- (d) Other devices (not standard locknuts and bushings) such as grounding bushings specifically approved for the purpose, equipped with bonding jumpers meeting the requirements of Rule 10-614.

10-606 Metal Armour or Tape of Service Cable. Where service cable has an uninsulated grounded service conductor in continuous electrical contact with its metallic armour or tape, the metal covering shall be considered to be adequately grounded.

10-608 Bonding at Other than Service Equipment. The electrical continuity of metal raceway, metal-sheathed, or armoured cable shall be assured by one of the methods specified in paragraphs (a), (b), (c), and (d) of Rule 10-604, or by the use of:

- (a) Threadless fittings, made up tight with conduit or armoured cable;

- (b) Two locknuts, one inside and one outside of boxes and cabinets; or

- (c) One locknut and a metal conduit bushing provided the bushing can be installed so that it is mechanically secure and makes positive contact with the inside surface of the box or cabinet.

10-610 Loosely Jointed Metal Raceways

(1) Expansion joints and telescoping sections of raceways shall be made electrically continuous by bonding jumpers or other approved means.

(2) Metal trough raceways used in connection with sound recording and reproducing equipment made up in sections, shall contain a grounding conductor to which each section shall be bonded.

10-612 Hazardous Locations. In hazardous locations and in non-hazardous locations from which hazardous locations are supplied, the electrical continuity of metallic raceways, boxes and the like, shall be assured by one of the methods specified in Paragraphs (a), (c), and (d) of Rule 10-604.

10-614 Bonding Jumpers

(1) Bonding jumpers shall be:

- (a) Of copper or other corrosion-resistant material;
 - (b) Of sufficient size to have an ampacity not less than that required for the corresponding grounding conductor except that for service raceways this ampacity may be determined on the basis of:
 - (i) Table 41, where the conducting path is supplemented by:
 - (A) The use of two lock nuts and a grounding bushing; or
 - (B) The use of a conduit or cable connector with a built-in shoulder complete with one lock nut and grounding bushing; or
 - (ii) The maximum size that the terminal on the grounding bushing will accommodate where single conductor metallic-sheathed cables are employed and the sheaths are attached to a grounded metallic plate by connectors, each fitted with a locknut and a grounding bushing;
 - (c) Attached to cabinets and similar equipment in a manner specified in Rule 10-906; and
 - (d) Attached in a manner specified in Rule 10-908 where used between grounding electrodes or around water meters and the like.
- (2) Straps when used for bonding non-current-carrying metal parts shall be not less than 19 millimetres in width and not less than 1.4 millimetres in thickness if of steel or not less than 1.2 millimetres in thickness if of aluminum or copper.

Grounding Electrodes**10-700 Grounding Electrodes**

(1) The grounding electrode shall be a service water pipe from a public water main to the building, provided:

- (a) It is continuously conductive;
- (b) It is placed underground not less than 250 millimetres below the normal permanent moisture level; and
- (c) The underground portion extends not less than 3 metres beyond the extremities of the building served.

(2) Where the electrode described in Subrule (1) is not available, an independent metal water piping system shall be used, provided:

- (a) It is continuously conductive;
 - (b) It is placed underground not less than 250 millimetres below the normal permanent moisture level; and
 - (c) The underground portion extends not less than 3 metres beyond the extremities of the building served.
- (3) Where the electrode described in Subrule (1) is not available, a continuously conductor independent metal water piping system or the metallic casing of a pump system shall be used provided:
- (a) The independent metal water piping system is placed underground not less than 250 millimetres below the normal permanent moisture level and the underground portion extends not less than 3 metres beyond the extremities of the building served; and
 - (b) The metal casing of the pump system is not less than 75 millimetres in diameter and extends at least 15 metres below the well head.
- (4) Where more than one of the grounding means listed in this Rule exist at a building, they shall be bonded together with a conductor sized as for a system grounding conductor required by Rule 10-812.

(5) In any case where two or more of the grounding mediums listed in this Rule appear at premises, the main grounding electrode for the system shall be selected in the order of preference outlined with bonding provided between the available electrodes in accordance with Rule 10-812.

10-702 Artificial Grounding Electrodes

(1) An artificial grounding electrode shall consist of a concrete encased electrode, rod electrode, or plate electrode, or other device acceptable for the purpose.

(2) A concrete encased electrode shall be encased within the bottom 50 millimetres of a concrete foundation footing which is in direct contact with the earth and shall be:

- (a) A bare copper conductor not less than 6 metres in length and of a size specified in Table 43; or
 - (b) A plate electrode which shall:
 - (i) Present not less than 0.4 square metres of surface to the concrete encasing the plate;
 - (ii) Be not less than 6 millimetres in thickness if of iron or steel; or 1.5 millimetres in thickness if of non-ferrous metal; and
 - (iii) Have a means of attachment for the system grounding conductor which shall be accessible after the concrete is poured.
- (3) A rod electrode shall consist of not less than two rods which shall:

- (a) be not less than $\frac{3}{8}$ inch in diameter if of iron or steel, or $\frac{1}{2}$ inch in diameter if of non-ferrous metal or ferrous metal clad with a non-ferrous metal;
 - (b) be preferably of one piece where less than standard commercial length;
 - (c) be not less than 3 metres in length;
 - (d) have a clean metal surface which is not covered with paint, enamel, or other poor conducting material; and
 - (e) be spaced no less than 3 metres apart.
- (4) A plate electrode shall:
- (a) present not less than 0.2 square metres of surface to exterior soil; and
 - (b) be not less than $\frac{1}{4}$ inch in thickness if of iron or steel; or 0.06 inch if of non-ferrous metal.
- (5) An artificial grounding electrode shall be buried at least 250 millimetres below permanent ground level, as far as practicable.
- (6) An artificial grounding electrode shall be buried in a horizontal trench where rock bottom is encountered at a depth of less than 1.2 metres.
- (7) Rods comprising a rod electrode shall be driven to a depth of no less than 3 metres regardless of the size or number used, except that:
- (a) where rock bottom is encountered at a depth of 1.2 metres or more, it shall be driven to rock bottom; or
 - (b) where rock bottom is encountered at a depth of less than 1.2 metres it shall be buried in a horizontal trench and be not less than 3 metres long.
- (8) Each electrode shall be separated at least 3 metres from any other electrode including an electrode used for signal circuits, radio, lightning rods, or any other purpose.
- (9) Where any or all of the separate grounding electrodes are bonded together, the bonding conductor shall be:
- (a) A copper conductor not smaller than No. 6 AWG;
 - (b) Installed so as not to be subject to mechanical damage; and
 - (c) Attached to electrodes for power systems in accordance with Rule 10-908 and preferably be attached to other electrodes in the same manner.

10-704 Railway Track as Electrodes. Rails or other grounded conductors of electric railway cir-

cuits shall not be used as a ground for other than railway lightning arresters and railway equipment, metal conduit, armoured or metal sheathed cable, metal raceway, and the like; and in no case shall such rails or other grounded conductors of railway circuits be used for grounding interior wiring systems other than those supplied from the railway circuit itself.

10-706 Spacing or Bonding Electrical and Lightning Rod Systems. Where practicable, a clearance of at least 2 metres shall be provided between lightning rods conductors and electrical conductors and equipment but, where this separation is not possible, the ground electrodes for the two systems shall be connected together, at or below ground level, with a copper conductor of a size not less than that of the grounding conductor for the electrical system and in no case shall the bonding conductor be smaller than No. 6 AWG copper.

10-708 Spacing and Bonding of Electrical and Communication System Grounding. Where separate artificial electrodes are provided as the grounding means for electrical and communication systems, each electrode shall be separated at least 2 metres from any other electrode as required by Rule 10-702 (8) and these shall be bonded together in accordance with Rule 10-702 (9).

10-710 Use of Lightning Rods. Lightning rod conductors and driven pipes, rods, or other electrodes, excluding buried metal water-piping systems, used for grounding lightning rods shall not be used for grounding wiring systems or other electrical equipment.

Grounding Conductors

10-800 Continuity of Grounding and Bonding Conductor. No automatic cutout or switch shall be placed in the grounding or bonding conductor of a wiring system unless the opening of the cutout or switch disconnects all sources of energy.

10-802 Material for System Grounding Conductors. The grounding conductor of a wiring system whether also used for grounding electrical equipment or not, may be insulated or bare, and shall be of copper.

10-804 Material for Bonding Conductors. The bonding conductor for equipment and for conduit and other metal raceways and enclosures for conductors shall be:

- (a) A conductor of copper or other corrosion-resistant material, insulated or bare;
- (b) A bus bar or steel pipe;
- (c) Rigid metal conduit, except a separate conductor as required by Subrule 10-804(a) shall be installed within the conduit where:
 - (i) the conduit is directly buried in earth;

- (ii) located in concrete or masonry slabs in contact with the earth; or
- (iii) in any location where materials having a deteriorating effect may come in contact with the conduit;
- (d) Electrical metallic tubing, except a separate conductor required by Subrule 10-804(a) shall be installed within the conduit where:
 - (i) the tubing is used in concrete or masonry slabs in contact with the earth; or
 - (ii) in any location where materials having a deteriorating effect may come in contact with the tubing;
- (e) The sheath of mineral-insulated cable that is not stainless steel or any conductor of a mineral-insulated cable if it is permanently marked at the time of installation so that it can be readily distinguished from conductors that are not used as bonding conductors, except that if the sheath is of aluminum in an underground run or in a location where materials having a deteriorating effect may come in contact with the metal, corrosion resistant protection suitable for the corrosive condition encountered shall be provided;
- (f) The sheath of aluminum-sheathed cable, but if used for underground runs or in locations where materials having a deteriorating effect may come in contact with the metal, corrosion-resistant protection suitable for the corrosive conditions encountered shall be provided; or
- (g) Other metallic raceways or cable armour as provided for in Rule 10-510.

10-806 Installation of System Grounding Conductors

(1) The grounding conductor for a system shall be without joint or splice throughout its length, except in the case of bus bars, thermit welded joints, compression connectors applied with a compression tool compatible with the particular connector, or devices acceptable for connection in series with the grounding conductor.

(2) A No. 6 AWG or larger copper grounding conductor which is free from exposure to mechanical injury may be run along the surface of the building construction without metal covering or protection, if it is rigidly stapled to the construction; otherwise it shall be in conduit, electrical metallic tubing, or cable armour.

(3) A copper grounding conductor of No. 8 AWG shall be in conduit, electrical metallic tubing or cable armour.

(4) Metallic enclosures for grounding conductors shall be continuous from the point of attachment to

cabinets or equipment to the grounding electrode and shall be securely fastened to the ground clamp or fitting.

(5) Where a grounding conductor is run in the same raceway with other conductors of the system to which it is connected, it shall be insulated, except that where the length of the raceway does not exceed 15 metres between pull points and does not contain more than the equivalent of two quarter bends between pull points, an uninsulated grounding conductor may be used.

(6) Notwithstanding the requirements of Subrule (2), a grounding conductor No. 6 AWG or larger may be embedded in concrete provided that the points of emergence are so located or guarded as not to constitute exposure to mechanical injury.

10-808 Installation of Equipment Bonding Conductors

(1) The bonding conductor for equipment is permitted to be spliced or tapped, but the splices or taps shall be made only within boxes, except that in the case of open wiring they are permitted to be made externally from boxes if covered with insulation.

(2) Where more than one bonding conductor enters a box, all such conductors shall be in good electrical contact with each other by securing all bonding conductors under bonding screws, or by connecting them together with an acceptable solderless connector and connecting one conductor only to the box by a bonding screw or a bonding device, and the arrangement shall be such that the disconnection or removal of a receptacle, fixture, or other device fed from the box, will not interfere with, or interrupt, the bonding continuity.

(3) Where a bonding conductor is run in the same raceway with other conductors of the system to which it is connected, it shall be insulated, except that where the length of the raceway does not exceed 15 metres and does not contain more than the equivalent of 2 quarter bends, an uninsulated bonding conductor is permitted to be used.

(4) Where rigid metal conduit or steel pipe is used as a bonding conductor, the installation shall comply with section 12.

(5) A copper bonding conductor shall:

(a) If No. 6 AWG or larger, and attached securely to the surface on which it is carried, be protected where exposed to mechanical injury; and

(b) If smaller than No. 6 AWG, or if the installation does not come within the provisions of Paragraph (a) of this Subrule, be installed and protected in the same manner as the circuit conductor for a given installation.

(6) An aluminum bonding conductor shall:

- (a) If No. 4 AWG or larger and attached securely to the surface on which it is carried, be protected where exposed to mechanical injury;
- (b) If smaller than No. 4 AWG, or if the installation does not come within the provisions of Paragraph (a) of this Subrule, be installed and protected in the same manner as the circuit conductor for a given installation.

(7) Where a separate bonding conductor supplements the bonding afforded by a ferrous metallic raceway, it shall be installed in the same raceway as the circuit conductors.

10-810 Grounding Conductor Size for DC Circuits

(1) The ampacity of the grounding conductor for a direct-current supply system or generator shall be not less than that of the largest conductor supplied by the system, except that where the grounded circuit conductor is a neutral derived from a balancer winding or a balancer set, the size of the grounding conductor shall be not less than that of the neutral conductor.

(2) The system grounding conductor shall be copper and in no case smaller than No. 8 AWG.

10-812 Grounding Conductor Size for AC Systems and Fixed Equipment. The size of the grounding conductor shall be:

- (a) Not less than that given in column 2 of Table 17 for an alternating-current system or for a common grounding conductor;
- (b) Not less than that given in column 2, 3, or 4 of Table 18, as applicable for a service raceway, for the metal sheath or armour of a service cable, and for service equipment, where the alternating-current system is not grounded at the premises.

10-814 Bonding Conductor Size

(1) The size of a bonding conductor shall be not less than that given in Table 16, but in no case does it need to be larger than the largest ungrounded conductor in the circuit.

(2) Notwithstanding the requirements of Rule 12-108, where circuit conductors are paralleled in separate raceways, the bonding conductor in each raceway shall be sized by dividing the rating or setting of the overcurrent device by the number of raceways and selecting from Table 16 a conductor size to satisfy this result.

10-816 Bonding Conductor Size for Circuits Extended to Portable, Pendent or Fixed Equipment. The bonding conductor size for circuits run to equipment from the outlets, that are bonded in accordance with Rule 10-814, shall be not less than that given in Column 2 or 3 of Table 16 as applicable, except that where flexible cord having copper conductors in sizes No. 16 AWG and smaller is used, the bonding conductor shall be the same size as the circuit conductors.

10-818 Bonding Conductor for Outline Lighting. Isolated non-current-carrying metal parts of outline lighting equipment are permitted to be bonded together by a No. 14 AWG conductor of copper or of equal conductance if of other metal and protected from mechanical injury.

10-820 Bonding Conductor Size for Instrument Transformers. The bonding conductor for secondary circuits of instrument transformers and for instrument cases shall be not smaller than No. 12 AWG if of copper, or of equal conductance if of other metal.

Grounding and Bonding Conductor Connections

10-900 Bonding Conductor Connection to Raceways. The point of connection of the bonding conductor to interior metal raceways, cable armour and the like shall be as near as practicable to the source of supply and shall be chosen so that no raceway or cable armour is bonded through a run of smaller size than is called for in Rule 10-814.

10-902 Grounding Conductor Connection to Water Pipe Electrodes

(1) Where the grounding electrode is a metallic water-piping system to which a common grounding conductor or the grounding conductor of a system is attached, the point of attachment shall be:

- (a) On the street side of the water meter; or
- (b) On a cold-water pipe of adequate ampacity and as near as practicable to the point of entrance of the water service in the building.

(2) Where practicable, the point of attachment shall be accessible.

(3) The metallic cold water system shall be made electrically continuous from the point of attachment of the grounding conductor to the water service entrance by bonding together all parts thereof if these parts contain insulating sections or may become disconnected as at meters, valves and unions.

(4) Equipment may be grounded to a cold-water pipe which is near the equipment.

10-904 Grounding Conductor Connection to other than Water Pipe Electrodes

(1) Where a metallic water-piping system is not available, the grounding conductor shall be attached to other electrodes at a point which will assure a permanent ground.

(2) Where practicable, the point of attachment shall be accessible.

10-906 Bonding Conductor Connection to Circuits and Equipment

(1) The bonding conductor or bonding jumper shall be attached to circuits, conduits, cabinets, equipment and the like, which are to be bonded, by means of

lugs, pressure wire connector clamps, or other approved means.

(2) Connections that depend upon solder shall not be used.

(3) The bonding conductor shall be secured to every metal box by means of a bonding screw, which shall be used for no other purpose.

(4) The bonding conductor shall be brought into every non-metallic outlet box in such a manner than it can be connected to any fitting or device that may require bonding to ground.

(5) Equipment shall be so installed that if the connections between the branch circuit and the internal conductors pass through an access cover the bonding connection shall remain continuous when the cover is removed.

(6) A bonding jumper shall be installed to connect the bonding conductor to the grounding terminal of a receptacle and in such a manner that disconnection or removal of the receptacle will not interfere with or interrupt grounding continuity.

(7) In the case of metallically enclosed systems where the grounding path is provided by the metal enclosure, a bonding jumper shall be installed to bond the grounding terminal of the receptacle to the enclosure.

(8) Notwithstanding Subrules (6) and (7) the bonding jumper, in the case of receptacles having grounding terminals isolated from the mounting strap required for special equipment, may be extended directly back to the distribution panel.

(9) Notwithstanding Rule 10-808, electronic equipment rated to operate at a supply voltage not exceeding 150 volts to ground and which requires a separate bonding conductor shall be permitted to be bonded to ground by an insulated conductor extending directly back to the distribution panel, provided that:

- (a) The separate bonding conductor is enclosed throughout its length in the same raceway or cable containing the circuit conductors throughout the length of that cable or raceway;
- (b) The separate bonding conductor is sized not less than that given in Table 16 for each leg of the run, determined by the size of the overcurrent protection for the circuit conductors; and
- (c) The bonding requirements of Rules 10-302 and 10-400 are met.

10-908 Grounding Conductor Connection to Electrodes

(1) The grounding conductor shall be attached to the grounding electrode by means of:

- (a) An approved bolted clamp;
- (b) A pipe fitting plug or other device screwed into the pipe or into the fitting;
- (c) Copper welding by the thermit process; or
- (d) Other equally substantial means.

(2) Where a bolted clamp is used for a wet location or for direct earth burial, the clamp shall be of copper, bronze or brass, and the bolts shall be of a similar material or of stainless steel.

(3) The grounding conductor shall be attached to the grounding fitting as required by Rule 10-906(1).

(4) Connections which depend on solder shall not be used.

(5) Not more than one conductor shall be connected to the grounding electrode by a single clamp or fitting, unless the clamp or fitting is of a type approved for multiple conductor connection.

Lightning Arresters

10-1000 Lightning Arresters on Secondary Services—750 Volts or Less

(1) Where a lightning arrester is installed on a secondary service, the connections to the service conductors and to the grounding conductor shall be as short as practicable.

- (2) The grounding conductor may be:
 - (a) The grounded service conductor;
 - (b) The common grounding conductor;
 - (c) The service equipment grounding conductor; or
 - (d) A separate grounding conductor.

(3) The bonding or grounding conductor shall be of copper not smaller than No. 6 AWG.

10-1002 Installation Requirements and Guarding for Lightning Arrester Grounding Conductors. The grounding conductor for lightning arresters shall:

- (a) When enclosed in metallic material be connected to the guard at both ends; and
- (b) Be installed and protected to meet the requirements of Rule 10-806.

SECTION 12—WIRING METHODS

SCOPE

12-000 Scope.—(1) The provisions of Section 12 apply to all wiring installations operating at 750 volts or less, except for:

- (a) Class 2 circuits unless otherwise specified in Section 16;
- (b) Optical fiber cables unless otherwise specified in Section 56;
- (c) Conductors which form an integral part of factory built equipment.

(2) The provisions of this Section apply also to installations operating at voltages in excess of 750 volts except as modified by the requirements of Section 36.

GENERAL REQUIREMENTS

12-010 Wiring in Ducts and Plenum Chambers

(1) No electrical equipment of any type unless approved for the purpose shall be installed in ducts used to transport dust, loose stock or flammable vapours.

(2) No electrical equipment that is not specifically approved for the purpose shall be installed:

- (a) In any duct used for vapour removal or for ventilation of commercial type cooking equipment; or
- (b) In any shaft which is required by regulation to contain only such ducts.

(3) Where conductors are installed in ducts, plenums, or hollow spaces that are used to transport or move air as part of an environmental air system or in a duct or plenum chamber to connect to an integral fan system, the conductors shall be in accordance with the requirements of Rules 12-100 and 2-128.

(4) Notwithstanding Subrule (3), where a plenum or hollow space is created by a suspended ceiling having lay-in panels or tiles, flexible cord not exceeding 3 metres in lengths and terminated with an attachment plug shall be permitted to supply pole type multi-outlet assemblies and recessed fluorescent luminaires provided the flexible cord is listed in Table 11 for:

- (a) hard usage where connected to either pole type multi-outlet assemblies or recessed fluorescent luminaires, where the voltage does not exceed 300 volts;
- (b) extra hard usage where connected to recessed fluorescent luminaires and where the supply voltage does not exceed 750 volts; and
- (c) at least 90° Celsius where supplying recessed fluorescent luminaires.

(5) Where a furnace cold-air return duct is formed by boxing in between joists, wiring methods approved for use in the particular location may be used.

12-012 Underground Installations

- (1) Direct buried conductors, cables or raceways

approved for the purpose shall be installed to meet the minimum cover requirements of Table 53.

(2) The minimum cover requirements are permitted to be reduced by 150 millimetres where mechanical protection is placed in the trench over the underground installation.

(3) Mechanical protection shall consist of one of the following and when in flat form shall be wide enough to extend at least 50 millimetres beyond the conductor, cables or raceways on each side:

- (a) Treated planking at least 38 millimetres thick;
- (b) Poured concrete at least 50 millimetres thick;
- (c) Concrete slabs at least 50 millimetres thick;
- (d) Concrete encasement at least 50 millimetres thick; or
- (e) Other acceptable material.

(4) Direct buried conductors or cables shall be installed so that they run adjacent to each other and do not cross over each other, and with a layer of 6 millimetres (nominal) screened sand or screened earth at least 75 millimetres deep, both above and below the conductors.

(5) Where conductors or cables rise for terminations or splices or where access is otherwise required, mechanical protection shall be provided in the form of rigid conduit terminated vertically in the trench and including a bushing or bell end fitting, or other acceptable protection at the bottom end from 300 millimetres above the bottom of the trench to at least 2 metres above finished grade, and beyond that as may be required by other Rules of the Code, and with sufficient slack provided in the conductors at the bottom end of the conduit so that the conductors enter the conduit from a vertical position.

(6) Cables buried directly in earth may be spliced or tapped in trenches without the use of splice boxes where the splices and taps are made by methods and with material approved for the purpose and the failure to use splice boxes is lawful under Rule 2-030.

(7) Raceways or metallic cables, if located in rock, may be installed at a lesser depth entrenched into the rock in a trench not less than 150 millimetres deep and grouted with concrete to the level of the rock surface.

(8) Raceways may be installed directly beneath a concrete slab at grade level provided the concrete slab is not less than a nominal 100 millimetres in thickness and the location is adequately marked and the raceway will not be subject to damage during or after installations.

(9) Any form of mechanical protection that may adversely affect the conductors or cable assemblies, shall not be used.

(10) Backfill containing large rock, paving materials, cinders, large or sharply angular substance, or corrosive material, shall not be placed in an excavation where such materials may damage cables, raceways or other substructures or prevent adequate compaction of fill or contribute to corrosion of cables, raceways or other substructures.

(11) The initial installation shall be provided with adequate marking in a conspicuous location to indicate the location and depth of the underground installation.

(12) For installations not covered by the foregoing requirements of this Rule, the requirements of CSA Standard CAN3-C22.3 No. 7-M86, Underground Systems shall apply.

(13) When it is permitted to utilize the free air ratings of Tables 1 and 3, the conductors shall be spaced at a minimum of 150 millimetres centre-to-centre.

12-014 Conductors in Hoistways

(1) Where conductors other than those used to furnish energy to the elevator or dumbwaiter are installed in hoistways, they shall be mineral-insulated cable, aluminum-sheathed cable or armoured cable, or be run in rigid metal conduit or flexible metal conduit or metallic tubing.

(2) The cable, conduit, or tubing referred to in Subrule (1) shall be:

- (a) Securely fastened to the hoistway construction; and
- (b) Arranged so that terminal, outlet, or junction boxes open outside the hoistway except that pull boxes may be installed in long runs for the purpose of supporting or pulling-in conductors.

12-016 Lightning Rod Conductors. Where lightning rod conductors are installed, electrical wiring shall, where practicable, be kept at least 2 metres from such conductors except where bonding is provided in accordance with Rule 10-708.

12-018 Entry of Raceways and Cables into Buildings. Holes in outer walls or roofs of buildings through which raceways or cables pass shall be filled to prevent infiltration of moisture.

12-020 Wiring Under Raised Floors for Data Processing and Similar Systems

(1) Flexible cords or cables and appliance wiring material with a jacket or overall insulating covering to connect and interconnect data processing and similar systems shall be permitted to be installed under raised floors provided:

- (a) The raised floor is of non-combustible construction, and, if of conductive material, is bonded to ground in accordance with Rule 10-406; and

- (b) The cords or cables terminate in attachment plugs having the configuration in accordance with Diagram 2 or which are classified as industrial type, special use attachment plugs, receptacles, or connectors.

(2) Branch circuit conductors installed under raised floors to supply receptacles shall be installed in rigid conduit, electrical metallic tubing, flexible metal conduit, armoured cables or metal sheathed cable including mineral-insulated cable other than the light weight type.

CONDUCTORS

General

12-100 Types of Conductors. Conductors installed in any location shall be suitable for the condition of use as indicated in Table 19 for the particular location involved and with particular respect to:

- (a) Moisture, if any;
- (b) Corrosive action, if any;
- (c) Temperature;
- (d) Degree of enclosure; and
- (e) Mechanical protection.

12-102 Thermoplastic-Insulated Conductors

(1) Conductors having thermoplastic insulation shall not be installed during any time when the ambient temperature is sufficiently low as to be liable to cause damage to the insulation.

(2) Such conductors shall not be so installed as to permit flexing or movement of the conductors after installation if the ambient temperature is liable to become low enough to damage the insulation during flexing or movement.

12-104 Flame Tested Coverings. Where the insulation on a conductor has a flame tested covering, the covering shall be removed sufficiently at terminals and splices to prevent creepage of current over it.

12-106 Multi and Single Conductor Cables

(1) Where multi-conductor cable is used, all conductors of a circuit shall be contained in the same multi-conductor cable except that, where it is necessary to run conductors in parallel due to the capacity of an alternating current circuit, additional cable may be used provided any one such cable includes an equal number of conductors from each phase and the neutral and shall be in accordance with Rule 12-108.

(2) A multi-conductor cable shall not contain circuits of different systems except as permitted in Rule 12-3034.

(3) Where single conductor cables are used, all single conductor cables of a circuit shall be of the same type and temperature rating and if run in parallel shall be in accordance with Rule 12-108.

(4) Single conductor armoured cable used as a current carrying conductor shall be of a type having non-ferrous armour.

12-108 Conductors in Parallel

(1) Except as provided in Subrule (3) conductors of similar conductivity in sizes No. 1/0 AWG copper or aluminum and larger may be in parallel, provided they are:

- (a) Free of splices throughout the total length;
- (b) The same circular mil area;
- (c) The same type of insulation;
- (d) The same length; and
- (e) Terminated at both ends in a wire connector specifically approved for use with conductors in parallel or in individual wire connectors, mounted on a solid bus bar or splitter with a separate screw or stud for each connector to ensure equal division of current.

(2) The orientation of single conductor metal sheathed or armoured cables in parallel, with respect to each other and to those in other phases, shall be such as to minimize the difference in inductive reactance and the unequal division of current.

(3) Conductors of similar conductivity in sizes smaller than No. 1/0 AWG copper may be run in parallel to supply control power to indicating instruments and devices, contactors, relays, solenoid, and similar control devices provided:

- (a) They are contained within one cable;
- (b) The ampacity of each individual conductor is sufficient to carry the entire load current shared by the paralleled conductors; and
- (c) The overcurrent protection is such that the ampacity of each individual conductor will not be exceeded if one or more of the paralleled conductors becomes inadvertently disconnected.

12-110 Radii of Bends in Conductors. The radii of bends in conductors shall be sufficiently large to ensure that no injury is done to the conductors or their insulation, covering, or sheathing.

12-112 Conductor Joints and Splices

(1) Unless made with approved solderless wire connectors, joints or splices in insulated conductors shall be soldered, but they shall first be made mechanically and electrically secure.

(2) Joints or splices shall be covered with an insulation approved for the purpose.

(3) Joints or splices in wires and cables shall be accessible.

(4) Splices in underground runs of cable, if required due to damage to the original installation, may be made:

(a) In junction boxes suitably protected from mechanical damage which are located at least 1 metre above grade and secured to buildings or to stub poles; or

(b) Notwithstanding the requirements of Subrule (3), by means of acceptable splicing devices or material (kits) suitable for direct earth burial.

12-114 Ends of Insulated Conductors. Where the ends of insulated conductors at switch and fixture outlets and in like places are not in use, they shall be insulated in the manner prescribed for joints and splices.

12-116 Termination of Conductors

(1) The portion of stranded conductors to be held by wire-binding terminals or solderless wire connectors shall have the strands confined so that there will be no stray strands to cause either short-circuits or grounds.

(2) Stranded and solid conductors larger than number 10 AWG shall be terminated in solderless wire connectors but are permitted to be soldered into wire connectors specifically approved for the purpose except where prohibited by Section 10.

12-118 Termination and Splicing of Aluminum Conductors

(1) Adequate precaution shall be given to the termination and splicing of aluminum conductors including the removal of insulation and separators, the cleaning (wire brushing) of stranded conductors, and the compatibility and installation of fittings.

(2) A joint compound, capable of penetrating the oxide film and preventing its reforming, shall be used for terminating or splicing all sizes of stranded aluminum conductors, unless the termination or splice is approved for use without compound and is so marked.

(3) Equipment connected to aluminum conductors shall be specifically approved for the purpose and be so marked except:

- (a) Equipment that has only leads for connection to the supply; or
- (b) Equipment such as outlet boxes that has only grounding terminals.

(4) Aluminum conductors shall not be terminated or spliced in wet locations unless the termination or splice is adequately protected against corrosion.

(5) Field-assembled connections between aluminum lugs and aluminum or copper bus bars or lugs, involving bolts or studs $\frac{3}{8}$ inch diameter or larger shall include as part of the joint any of the following means of allowing for expansion of the parts:

- (a) A conical spring washer; or
- (b) A helical spring washer of the heavy series, provided that a flat steel washer of thickness

not less than 1/6 of the nominal diameter of the bolt or stud is interposed between the helical washer and any aluminum surface against which it would bear; or

- (c) Aluminum bolts or studs, provided that all the elements in the assembled connection are of aluminum.

(6) Connection of aluminum conductors to wiring devices having wire binding terminal screws, about which conductors can be looped under the head of the screw, shall be made by forming the conductor in a clockwise direction around the screw into $\frac{3}{4}$ of a complete loop; and only one conductor shall be connected to any one screw.

12-120 Supporting of Conductors

(1) Conductors shall be supported so that no injurious strain is imposed on the terminals of any electrical apparatus or devices or on any joints or taps.

(2) Conductors in vertical raceways shall be supported independently of the terminal connections and at intervals not exceeding those specified in Table 21, and such supports shall maintain the continuity of the raceway system without injury to the conductors or their covering.

(3) Conductors in raceways shall not hang over the edges of bushings, bends or fittings of any kind in such a manner that the insulation may be damaged.

Open Wiring

12-200 Open Wiring Rules. Rules 12-202 to 12-224 apply only to single conductors run as open wiring.

12-202 Types of Conductors. Conductors shall be of types specified in Rules 12-100 and 12-102.

12-204 Spacing of Conductors

(1) Spacings between conductors and between conductors and adjacent surfaces shall, except as otherwise provided for in this Rule, comply with the following:

- (a) For normally dry locations the spacings shall be not less than those specified in Table 20;
- (b) Where circuits of different voltages are run parallel to each other, the separation between adjacent conductors of the different circuits shall be not less than that specified in Table 20 for conductors of the circuit having the higher voltage;
- (c) In damp locations, a separation of at least 25 millimetres shall be maintained between conductors and adjacent surfaces.

(2) In all locations, a separation of at least 25 millimetres shall be maintained between conductors and adjacent metallic piping or conducting materials.

(3) Where conductors are run across the open faces of joists, studs, or timber, the separation between conductors shall be as specified in Rule 12-212.

(4) At connections to fittings and devices or in other cases where it is not practical to maintain the spacing specified in Subrules (1), (2) and (3), the conductors shall be installed in raceways or acceptable insulating tubing.

12-206 Conductor Supports

(1) Conductors shall be supported rigidly on non-combustible, absorption-resisting insulators.

(2) Split knobs shall not be used to support conductors larger than No. 8 AWG copper or aluminum.

(3) Conductors supported on solid knobs shall be securely tied thereto by tie wires having insulation of the same type as that on the conductors which they secure.

(4) Where used on metal surfaces, thermoplastic-insulated conductors shall not be mounted in split knobs or cleats.

12-208 Conductors on Flat Surfaces. Where conductors are run on flat surfaces, they shall be supported rigidly at intervals of not more than 1.5 metres.

12-210 Material for Attachment of Conductor Supports. Knobs and cleats shall be fastened securely with screws.

12-212 Protection from Mechanical Injury

(1) Where conductors are supported on or run across the open faces of joists, wall-studs, or other timber, or on walls where exposed to mechanical injury, they shall be protected by running-boards, guard-strips, wooden boxing or sleeves of iron pipe.

(2) Where conductors are not exposed to mechanical injury, they may be run directly from timber to timber, but shall be:

- (a) Of not less than No. 8 AWG;
- (b) Separated from each other by not less than 150 millimetres; and
- (c) Supported at each timber.

(3) Open wiring shall not be run across the tops of ceiling joists in unfinished attics or like places.

12-214 Material for Running-Boards, Guard-Strips and Boxing

(1) Material for running-boards, guard-strips, and boxing shall be at least 19 millimetres thick and the edges of running-boards shall project at least 12 millimetres beyond the insulators on both sides.

(2) Guard-strips shall be at least as high as the insulators and placed as close to the conductors as Table 20 permits.

(3) In wooden boxing, there shall be a clear space of at least 25 millimetres between conductors and adjacent surfaces, and the ends of boxing not abutting on the structure of the building shall be closed.

12-216 Ends of Conductors

(1) Conductors shall not be brought to a dead-end at any fitting distant more than 300 millimetres from the last supporting insulator.

(2) Where conductors of No. 8 AWG copper or aluminum or larger are run as open wiring, solid knobs or strain insulators shall be used at the ends of the run.

12-218 Conductors Passing Through Walls or Floors. Where conductors pass through walls, floors, timbers or partitions, they shall be installed in raceways or acceptable insulating tubing.

12-220 Maintaining Clearances. Sub-bases shall be installed under all surface-mounted switches and receptacles unless adequate clearances are otherwise maintained.

12-222 Where Open Wiring Connects to Other Systems of Wiring. Where open wiring is connected to conductors in raceways, armoured cable, or non-metallic sheathed cable, the junction shall be made in a box, or at, or in, a fitting having a separately bushed hole for each conductor.

12-224 Provision for Bonding. Where open wiring is used, provision for bonding to ground shall be made in accordance with the Section 10 requirements.

Exposed Wiring on Exteriors of Buildings and Between Buildings on the Same Premises

12-300 Exterior Exposed Wiring Rules. Rules 12-302 to 12-318 apply only to exposed wiring run on the exterior surfaces of buildings or between buildings on the same premises.

12-302 Types of Conductors. Conductors shall be of types suitable for exposure to the weather as indicated in Table 19.

12-304 Location of Conductors

(1) Subject to the provisions of Rule 6-112, where the conductors are supported on or in close proximity to the exterior surfaces of buildings they shall be installed and protected so that they shall not be a hazard to persons or be exposed to mechanical injury and they shall be at least 4.5 metres from the ground or such shorter distance from the ground as is lawful under Rule 2-030.

(2) Where the conductors are exposed to mechanical injury from awnings, swinging signs, shutters, or other movable objects, they shall be run in rigid conduit made water-tight.

12-306 Conductor Supports

(1) Conductors on the exterior surfaces of buildings shall be supported by brackets, racks, insulators, or other acceptable means at intervals of not more than 3 metres and the individual conductors shall be distant at least 150 millimetres from one another and at least 50 millimetres from the adjacent surfaces.

(2) Where petticoat insulators are used, they shall be installed at intervals of not more than 4.5 metres under normal conditions and at smaller intervals where the conductors are subject to disturbance and shall be located so as to hold the individual conductors at least 300 millimetres apart and at least 50 millimetres from adjacent surfaces.

(3) Where the conductors are not exposed to the weather, they may be supported on glass or porcelain knobs placed at intervals of not more than 1.5 metres and holding the conductors at least 25 millimetres from adjacent surfaces.

(4) Where conductors connected to a voltage of 300 volts or less are located in proximity to conductors of a higher voltage not exceeding 750 volts, the conductors of the higher voltages shall be mounted above and kept at least 300 millimetres away from the conductors of the lower voltage.

12-308 Minimum Size of Overhead Conductors. Single conductors run aerially between buildings or supports on the same premises in spans exceeding 4.5 metres shall have acceptable tensile strength and shall be not smaller than:

- (a) No. 10 AWG copper or No. 6 AWG aluminum for spans of more than 4.5 metres but not more than 15 metres;
- (b) No. 8 AWG copper or No. 4 AWG aluminum for spans of more than 15 metres but not more than 30 metres; and
- (c) No. 6 AWG copper or No. 3 AWG aluminum for spans of more than 30 metres but not more than 40 metres.

12-310 Clearance of Conductors. The conductors shall be located or guarded so that they cannot be reached by a person standing on a fire escape, flat roof, or other portion of a building, and they shall be:

- (a) at least 2.5 metres, or such lesser distance of at least 2 metres as is lawful under Rule 2-030, above the highest point of a flat roof or roof that can be readily walked upon; and
- (b) at least 1 metre above a peaked roof or the highest point of a roof that cannot be readily walked upon.

12-312 Conductors over Buildings. Conductors shall not be carried over buildings unless doing so is lawful under Rule 2-030, and work shall not begin until the plans and specifications for the work are approved in accordance with Rule 2-010.

12-314 Conductors on Trestles. Where the conductors pass over buildings, they shall, where practicable, be supported on structures not connected to the building but, where not practicable, they shall be supported on and secured to trestles constructed of steel or other acceptable material.

12-316 Power Supply Conductors. The conductors of a power supply system attached to the exterior

surfaces of buildings shall be at least 100 millimetres from the conductors of a communication system unless one system is in conduit or is permanently separated from other systems by a continuous fixed non-conductor other than the insulation on the conductors.

12-318 Use of Neutral Supported Cables. When neutral supported cables are used the following requirements shall apply:

- (a) They shall not be mounted directly on any surface;
- (b) They shall be secured so that they will be not less than:
 - (i) 1 metre from a building in the case of Type NS-1;
 - (ii) 50 millimetres from a building in the case of Type NSF-2;
- (c) They shall be supported in spans of not more than 38 metres in length;
- (d) The conductors shall be secured to the messenger at all terminations;
- (e) Where aluminum conductors are used, wire connectors approved for use with such conductors shall be used; and
- (f) The bare neutral (messenger) when used as a neutral conductor forming part of an electrical circuit shall be:
 - (i) Supplied from a grounded ac system;
 - (ii) Attached to an insulator at points of support and at terminations; and
 - (iii) Not connected to or in contact with any grounded surface except as permitted by other rules of this Code.

Bare Bus Bars and Risers

12-400 Where Bare Bus Bars May be Used

- (1) Bare conductors shall not be used as main risers or feeders in buildings unless the use is lawful under Rule 2-030 and Subrule (2) of this Rule.
- (2) Notwithstanding Rule 2-030, bare conductors shall not be used as main risers or feeders in buildings unless,
 - (a) The building is of non-combustible construction;
 - (b) The conductors are placed in a chase, channel, or shaft located or guarded so that the conductors are inaccessible;
 - (c) The premises do not constitute a hazardous location;
 - (d) Suitable cut-offs to protect against the vertical spread of fire are provided where floors are pierced; and

- (e) The mechanical and electrical features of the installation and the conductor supports are, appropriate to the operating and maintenance conditions likely to occur, the following specific requirements being used in the case of bus bars rated 1,200 amperes or less:
 - (i) Where flat bare bus bars $\frac{1}{4}$ inch or less in thickness are used, the continuous current rating shall not exceed 1,000 amperes per square inch of cross-sectional area of copper bus bar, or 700 amperes in the case of aluminum bus bars; and
 - (ii) Bus bar supports shall be spaced not greater than 750 millimetres apart, with minimum clearance across insulating surfaces between bars of opposite polarity of not less than 50 millimetres and 25 millimetres between bus bars and any grounded surface.

Nonmetallic Sheathed Cable

12-500 Nonmetallic Sheathed Cable Rules. Rules 12-502 to 12-526 shall apply only to conductors run as nonmetallic sheathed cable.

12-502 Maximum Potential. Nonmetallic sheathed cable shall not be used where the voltage exceeds 300 volts between any two conductors.

12-504 Use of Nonmetallic Sheathed Cable

(1) Nonmetallic sheathed cable is permitted in or on buildings of combustible construction and in or on other types of construction by special permission.

(2) Nonmetallic sheathed cable is not permitted in or on buildings that are required to be of noncombustible construction by the Ontario Building Code.

12-506 Method of Installation

(1) The cable shall be run in continuous lengths between outlet boxes, junction boxes, and panel boxes as a loop system, and the joints, splices, and taps shall be made in the boxes.

(2) Where concealed wiring is connected to non-metallic sheathed cable, the junction shall be made in a box.

(3) Where open wiring is connected to nonmetallic sheathed cable, the junction shall be made in a box or at or in a fitting having a separately bushed hole for each conductor.

(4) Where nonmetallic sheathed cable is run in proximity to heating ducts or piping, transfer of heat to the cable shall be minimized by means of an air space of at least 25 millimetres or by the installation of an acceptable thermal barrier between the cable and the duct or piping.

(5) Two-conductor cable shall not be stapled on edge.

12-508 Bending and Stapling of Cable. The cable shall not be bent, handled, or stapled so that the insulated conductors or outer covering is damaged.

12-510 Running of Cable Between Boxes and Fittings

(1) Where the cable is run between boxes and fittings it shall be supported by straps or other approved devices located within 300 millimetres of every box or fitting and at intervals of not more than 1.5 metres throughout the run.

(2) Cables run through holes in joists or studs shall be considered to be supported.

(3) Notwithstanding Subrules (1) and (2), where the cable is run as concealed wiring such that it is impracticable to support it, the cable may be fished and need not be supported between boxes and fittings.

12-512 Not to be Embedded. The cable shall not be buried in plaster, cement, or similar finish.

12-514 Protection on Joists and Rafters. Cables shall not be run on or across:

- (a) The upper faces of ceiling joists or the lower faces of rafters in attic or roof spaces, where the vertical distance between the joists and the rafters exceeds 1 metre; or
- (b) The lower faces of basement joists, unless suitably protected from mechanical injury.

12-516 Protection For Cable In Concealed Installations

(1) Where the cable is run through studs, joists, or similar wooden members, the outer surfaces of the cable shall be kept distant at least 32 millimetres from the edges of the wooden members or the cable shall be effectively protected from mechanical injury.

(2) Where the cable is run through or along metal studs, joists, sheathing or cladding, it shall be:

- (a) So located to be effectively protected from mechanical injury both during and after installation;
- (b) Protected where it passes through a member by an approved insert of insulating material adequately secured to the opening in the member; and
- (c) Supported where it runs along or parallel to a member by an approved support of insulating material to ensure isolation from the metal.

(3) Where the cable is installed immediately behind a baseboard, it shall be effectively protected from mechanical injury from driven nails.

12-518 Protection for Cable in Exposed Installations. Cable used in exposed wiring shall be adequately protected against mechanical damage

where it passes through a floor, is less than 1.5 metres above a floor or where exposed to mechanical damage.

12-520 Fished Cable Installation. Where the cable is used in concealed wiring and it is impracticable to provide the supports required by Rule 12-510 the cable may be fished.

12-522 Where Outlet Boxes Are Not Required

(1) Where the cable is exposed, approved switch, outlet, and tap devices of insulating material may be used without boxes.

(2) The openings in the devices shall fit closely around the outer covering of the cable.

(3) The device shall fully enclose any part of the cable from which any part of the covering has been removed.

(4) Where the conductors are connected to the devices by binding-screw terminals, there shall be as many screws as there are conductors unless the cables are clamped within the device or the terminals are of a type approved for the purpose.

12-524 Types of Boxes and Fittings

(1) Boxes and fittings shall be of a type approved for use with nonmetallic sheathed cable.

(2) Where grounded metal boxes are not required by these rules, outlet and switch boxes may be of fire-resisting moulded composition insulating material, furnished with a cover of the same material.

12-526 Provision for Bonding. Where nonmetallic sheathed cable is used, provision for bonding to ground shall be made in accordance with Section 10.

Armoured Cable

12-600 Armoured Cable Work Rules. Rules 12-602 to 12-618 apply only to armoured-cable work.

12-602 Use

(1) Armoured cable may be installed in or on buildings or portions of buildings of either combustible or non-combustible construction.

(2) Armoured cable shall be of the type listed in Table 19 as suitable for direct burial if used:

- (a) For underground runs;
- (b) For circuits in masonry or concrete provided the cable is encased or embedded in at least 50 millimetres of the masonry or concrete; or
- (c) In locations where it will be exposed to weather, continuous moisture, excessive humidity or to oil or other substances having a deteriorating effect on the insulation.

(3) Armoured cable which has the armouring made

wholly or in part of aluminum shall not be embedded in concrete containing reinforcing steel unless:

- (a) The concrete is known to contain no chloride additives; or
- (b) The armour has been treated with an approved bituminous base paint or other approved means to prevent galvanic corrosion of the aluminum.

(4) Where armoured cables are laid in or under cinders or cinder concrete, they shall be protected from corrosive action by a grouting of non-cinder concrete at least 25 millimetres thick entirely surrounding them unless they are 450 millimetres or more under the cinders or cinder concrete.

(5) In buildings of non-combustible construction, armoured cables having conductors not larger than No. 10 AWG copper or aluminum, may be laid on the face of the masonry or other material of which the walls and ceiling are constructed and may be buried in the plaster finish.

12-604 Protection for Armoured Cables in Lanes. If subject to mechanical injury and unless otherwise protected, acceptable steel guards of not less than No. 10 MSG, adequately secured, must be installed to protect armoured cables less than 2 metres above grade in lanes and driveways.

12-606 Use of Thermoplastic Covered Armoured Cable. Armoured cable of the type listed in Table 19 as suitable for direct earth burial and which has a thermoplastic outer covering, shall only be used where the outer covering will not be subjected to mechanical injury.

12-608 Continuity of Armoured Cable. The armour of cables shall be mechanically and electrically continuous throughout and shall be mechanically and electrically secured to all equipment to which it is attached, except that the lead-sheath of lead-sheathed armoured cable need not be bonded.

12-610 Terminating Armoured Cable

(1) Where conductors issue from armour, they shall be protected from abrasion:

- (a) By acceptable bushings of insulating material or equivalent devices; or
- (b) By the sheath of lead-sheathed armoured cable.

(2) Where conductors are No. 8 AWG or larger, copper or aluminum, the protection shall consist of:

- (a) Insulated type bushings, unless the equipment is equipped with a hub having a smoothly rounded throat; or
- (b) Insulating material fastened securely in place which will separate the conductors from the armoured cable fittings and afford adequate resistance to mechanical injury.

(3) Where armoured cable is fastened to equipment, the connector or clamp shall be of such design as to leave the insulating bushing or its equivalent, or the end of the lead sheath, visible for inspection.

(4) Where conductors connected to open wiring issue from the ends of armouring, they shall be protected with approved boxes or with fittings having a separately bushed hole for each conductor.

(5) Where lead-sheathed armoured cables are used in locations where moisture may accumulate, a pothead or equivalent device shall be used to protect the conductors from moisture and mechanical injury at their point of issue from the lead-sheathing.

12-612 Proximity to Knob-and-Tube and Non-metallic Sheathed Cable Systems. Where armoured cable is used in a building in which concealed knob-and-tube wiring or concealed non-metallic sheathed cable wiring is installed, the cable shall not be fished if there is a possibility of damage to the existing wiring.

12-614 Radii of Bends in Armoured Cables

(1) Where armoured cables are bent during installation, the radius of the curve of the inner edge of the bends shall be at least 6 times the internal diameter of the armoured cable.

(2) Where lead-sheathed armoured cable is used, the radius of the curve of the inner edge of the bends shall be at least 10 times the internal diameter of the armoured cable.

(3) Bends shall be made without undue distortion of the armour and without injury to its inner or outer surfaces.

12-616 Concealed Armoured Cable Installation

(1) Where armoured cable is run through studs, joists, or other members, it shall be:

- (a) Located so that its outer circumference is at least 32 millimetres from the nearest edge of the members; or
- (b) Protected from mechanical injury where it passes through the holes in the members.

(2) Where armoured cable is installed immediately behind baseboards, it shall be protected from mechanical injury from driven nails.

12-618 Running of Cable Between Boxes, Etc. Armoured cable shall be supported between boxes and fittings in accordance with Rule 12-510.

Mineral-Insulated and Aluminum-Sheathed Cable

12-700 Mineral-Insulated and Aluminum-Sheathed Cable Rules. Rules 12-702 to 12-718 cover the installation of mineral-insulated and aluminum-sheathed cable and are amendatory of the other rules of this Code where they apply.

12-702 Use

(1) Mineral-insulated cable and aluminum-sheathed cable may be installed in or on buildings or portions of buildings of either combustible or non-combustible construction.

(2) Light-weight mineral-insulated cable shall be used only in multi-conductor assemblies.

12-704 Use When Embedded

(1) Mineral-insulated cable and, round aluminum-sheathed cable, except as noted in Subrule (3), may be used for underplaster extensions or when encased or embedded in at least 50 millimetres of masonry or poured concrete.

(2) Flat two-conductor aluminum-sheathed cable shall not be used for underplaster extensions where embedded in masonry or concrete unless the use is lawful under Rule 2-030 or Subrule (3) of this Rule.

(3) Cable having an aluminum sheath shall not be embedded in concrete containing reinforcing steel unless:

- (a) The concrete is known to contain no chloride additives; or
- (b) The sheath has been treated with an approved bituminous base paint or other approved means to prevent galvanic corrosion of the aluminum.

12-706 Method of Supporting

(1) Mineral-insulated and aluminum-sheathed cable shall be securely supported by staples, straps, hangers, or similar fittings in such a manner as not to:

- (a) Injure the sheath of the cable; or
- (b) Subject the cable or its termination fittings to undue strain.

(2) Mineral-insulated and aluminum-sheathed cable shall be secured at intervals not exceeding 2 metres, except where the cable is fished and adequate supports are installed, if needed, adjacent to termination fittings.

(3) When settlement of a structure may occur due to weight of contents as in certain grain storage occupancies, provision shall be made so that mineral-insulated and aluminum-sheathed cable runs, including their termination fittings, will not be subjected to undue strain.

(4) Mineral-insulated and aluminum-sheathed cable may be run on the surface of walls, partitions, ceilings, or on or across structural members, subject to the applicable requirements of Rule 12-710.

12-708 Direct Earth Burial. Mineral-insulated cable having an aluminum outer sheath and aluminum-sheathed cable in direct contact with the earth shall be provided with a non-metallic jacket or other corrosion resisting covering.

12-710 Mechanical Protection

(1) Where subject to mechanical injury, mineral-insulated and aluminum-sheathed cable shall be suitably protected.

(2) Where mineral-insulated or aluminum-sheathed cable is installed on the face of a wall, partition, ceiling, or structural member within 1.5 metres of the floor, and in all locations where subject to mechanical injury as for instance from industrial tractors, other vehicles, equipment, stock piling, or excessive vibration, a suitable safeguard against such injury shall be provided.

(3) Mineral-insulated or aluminum-sheathed cable shall be protected, located, or arranged so that a 2½-inch common nail cannot be driven into it, where the cable is:

- (a) Run through bored or notched holes or grooves in wooden structural members;
- (b) Secured directly to the underside of wooden flooring;
- (c) Located behind baseboards or casings.

(4) In order to comply with Subrule (3), the hole, groove, or supporting strap containing the cable may be sufficiently oversized to permit the cable to move a distance equal to at least the radius of the cable.

(5) Where mineral-insulated or aluminum-sheathed cable passes from a point above grade to direct earth burial and is not otherwise protected against mechanical injury, a suitable pipe stubup shall be arranged to encase the cable to a point where practicable at least 300 millimetres above grade and, in locations where frost heaving may occur, the encasement shall slide freely on the cable, so as to avoid injury thereto.

12-712 Radii of Bends

(1) The radius of the curve on the inner edge of bends made on mineral-insulated cable shall be not less than six times the external diameter of the sheath and shall be made so as not to damage the outer sheath.

(2) The radius of the curve on the inner edge of bends made on smooth aluminum-sheathed cable shall be not less than:

- (a) ten times the external diameter of the sheath for cable not more than 19 millimetres in external diameter;
- (b) twelve times the external diameter of the sheath for cable more than 19 millimetres but not more than 38 millimetres in external diameter; or
- (c) fifteen times the external diameter of the sheath for cable more than 38 millimetres in external diameter.

(3) The radius of the curve on the inner edge of bends made on corrugated aluminum-sheathed cable shall be not less than nine times the external diameter of the sheath.

12-714 Termination of Mineral-Insulated Cable. At all points where mineral-insulated cable terminates.

- (a) The end of the cable shall be sealed immediately after stripping to prevent entrance of moisture to the insulation;
- (b) Each conductor extended beyond the sheath shall be provided with the proper insulation; and
- (c) Box connectors used with mineral-insulated cable shall be of types approved specifically for use with this cable.

12-716 Connection to Other Forms of Wiring. Where mineral-insulated or aluminum-sheathed cable is connected to other forms of wiring, the junction shall be made in a box, or at, or in, a fitting having a separately bushed hole for each conductor.

Flat Conductor Cable Type FCC

12-800 Type FCC Under-Carpet Wiring System Rules. Rules 12-800 to 12-824 apply only to the installation of Type FCC under-carpet wiring systems.

12-802 Special Terminology. In this Subsection the following definitions apply:

- (a) "Type FCC system" means a complete wiring system for installation only under carpet squares and includes cable and associated fittings;
- (b) "Type FCC cable" means a cable consisting of 3 or more flat separated conductors laid flat and parallel in the same plane and enclosed within an insulating assembly;
- (c) "Bottom shield" means a protective layer that is between the floor and the Type FCC cable to protect the cable from physical damage;
- (d) "Top shield" means an electrically conductive covering for under-carpet components of a Type FCC system that provides a degree of protection against physical damage and electrical shock and may or may not be incorporated as an integral part of a Type FCC cable assembly;
- (e) "Metal tape" means a metal overlay to prevent physical damage to the Type FCC system;
- (f) "Type FCC cable connector" means a device used for joining Type FCC cables, with or without the use of a junction box;
- (g) "Insulating end" means an insulator designed to electrically insulate the exposed ends of Type FCC cables;
- (h) "Transition assembly" means an assembly specifically approved for the purpose of con-

necting a Type FCC system to other types of wiring systems.

12-804 Use Permitted. Type FCC systems are permitted to be used only for the extension of general purpose and appliance branch circuits:

- (a) In dry or damp locations;
- (b) On hard, smooth, continuous floor surfaces made of concrete, ceramic or composition flooring, wood, or similar materials; and
- (c) On floors heated in excess of 30°C when the FCC system is marked for the purpose.

12-806 Use Prohibited. Type FCC systems shall not be used:

- (a) Outdoors or in wet locations;
- (b) Where they are subject to corrosive vapours or liquids;
- (c) In any hazardous locations;
- (d) In dwelling units;
- (e) In schools, hospitals, or institutional buildings except in office areas;
- (f) On walls except where entering transition assemblies;
- (g) Under permanent type partitions or walls;
- (h) Where the voltage exceeds 150 volts-to-ground or 300 volts between any two conductors; or
- (i) For branch circuits exceeding 30 amperes.

12-808 Floor Covering. Floor mounted Type FCC cable with associated steel tape, shielding cable connections, and insulating ends shall be covered with carpet squares not having a dimension exceeding 750 millimetres on any side and any adhesive used shall be of the release type.

12-810 Connections and Terminations

(1) Type FCC cable connections shall be installed so that electrical continuity, insulation, and sealing against dampness and liquid spillage are provided.

(2) Bare ends shall be insulated and sealed by the use of insulating ends.

12-812 Shields

(1) Type FCC systems shall include a bottom shield.

(2) A metal top shield shall be installed over floor mounted Type FCC cable, connectors, and insulating ends.

12-814 Enclosure and Shield Continuity. Metal shields, tapes, boxes, receptacle housings, and self-contained devices shall be electrically continuous and bonded to ground.

12-816 Connection to Other Systems. Power feed, bonding, and shield system connections between the Type FCC system and other wiring systems shall be accomplished in a transition assembly intended for surface or recessed mounting.

12-818 Anchoring. Type FCC system components shall be firmly secured to floors and walls by means of:

- (a) An adhesive in the case of cables; and
- (b) Acceptable mechanical fasteners in the case of associated fittings such as outlet boxes and transition assemblies.

12-820 Crossings. A Type FCC cable run is permitted to cross over or under another Type FCC cable run or communication flat cable provided there is a layer of metal shielding between each of the cables.

12-822 Mechanical Protection

(1) All Type FCC systems installed under carpet squares shall be protected from physical damage by metal tape completely covering the Type FCC cable and connections.

(2) Where surface or recessed wall mounting of the Type FCC cable is required to enter transition assemblies, additional mechanical protection shall be provided to prevent damage from items such as nails and screws.

12-824 System Height. Except as permitted by Rule 12-820, stacked runs of flat conductor cable shall not be permitted.

RACEWAYS

General

12-900 Raceway Rules. Rules 12-902 to 12-938 apply to raceways and to conductors run in raceways.

12-902 Types of Conductors. Conductors shall be of types suitable for use in raceways as indicated in Table 19.

12-904 Conductors in Raceways

(1) Where conductors are placed in metallic raceways, all conductors of a circuit shall be contained in the same raceway, or in the same channel of a multiple channel raceway, except that where it is necessary to run conductors in parallel due to the capacity of an alternating-current circuit additional enclosures may be used, provided:

- (a) The conductors are installed in accordance with Rule 12-108 (1);

(b) Each enclosure includes an equal number of conductors from each phase and the neutral; and

(c) Each enclosure or cable sheath is of the same material and has the same physical characteristics.

(2) No raceway or compartment of a multiple channel raceway shall contain conductors which are connected to different power or distribution transformers or other different sources of voltage except where the conductors:

(a) Are separated by the metal armour or metal sheath of cable assemblies of the types listed in Table 19; or

(b) Are separated by a barrier of sheet steel not less than 0.0528 inch (No. 16 MSG) thick or a flame-retardant nonmetallic insulating material not less than 1.5 millimetres in thickness; or

(c) Are used for the supply and/or control of remote devices and are insulated for at least the same voltage as that of the circuit having the highest voltage and none of the conductors of the circuits of lower voltages is directly connected to a lighting branch circuit.

12-906 Protection of Conductors at Ends of Raceways

(1) Bushings or equivalent means shall be used to protect conductors from abrasion where they issue from raceways.

(2) Where conductors are No. 8 AWG or larger copper or aluminum the protection shall consist of:

(a) Insulated type bushings, unless the equipment is equipped with a hub having a smoothly rounded throat; or

(b) Insulating material fastened securely in place which will separate the conductors from the raceway fittings and afford adequate resistance to mechanical injury.

12-908 Inserting Conductors in Raceways

(1) Cleaning agents or lubricants of an electrical conducting nature or that might have a deleterious effect on conductor coverings shall not be used when inserting conductors in raceways.

(2) Lubricants used when inserting conductors in raceways shall be either talc or soapstone or an approved compound.

12-910 Joints or Splices Within Raceways. There shall be no joints or splices in conductors or cables within raceways except in the case of busways, wireways, and cable trays and surface raceways with removable covers.

12-912 Stranding of Conductors. Except in the case of conductors used as bus bars and mineral-insulated cables, single or multiple conductor cables No. 8 AWG or larger, when installed in raceways, shall be stranded.

12-914 Electrical Continuity of Raceways. Metal raceways shall be electrically continuous throughout and electrically secured to all equipment to which they are attached.

12-916 Mechanical Continuity of Raceways. Raceways shall be mechanically continuous throughout and mechanically secured to all equipment to which they are attached.

12-918 Support of Raceways. Raceways shall be supported independently of equipment forming part of the raceway system.

12-920 Removal of Fins and Burrs of Raceways. Fins and burrs shall be removed from the ends of raceways.

12-922 Radii of Bends in Raceways

(1) Where raceways of the type into which conductors are drawn, are bent during installation, the radius of the curve of the inner edge of the bends shall be at least 6 times the internal diameter of the raceway except that the radius shall be increased to 10 times where lead-sheathed cable or varnished-cambric-insulated conductors are used.

(2) Bends shall be made without undue distortion of the raceways and without injury to its inner or outer surfaces.

12-924 Junction of Open Wiring and Raceways. Where conductors connected to open wiring issue from ends of raceways, they shall be protected with approved boxes or with fittings having a separately bushed hole for each conductor.

12-926 Entry of Underground Conduits into Buildings. Where a conduit enters a building from an underground distribution system, the end of the conduit within the building shall be sealed with a suitable compound to prevent the entrance of moisture and gases.

12-928 Raceways Installed Underground or Where Moisture May Accumulate

(1) The requirements for Category 1 locations as specified in Section 22 shall be complied with where raceways are installed:

- (a) Underground;
- (b) In concrete slabs or other masonry in direct contact with moist earth; or
- (c) In other locations where the conductors are subject to moisture.

(2) Where lead-sheathed conductors are used in such locations, a pothead or equivalent device shall

be used to protect them from moisture and mechanical injury at their point of issue from the lead sheathing.

(3) Where raceways are installed underground they shall be buried to a depth of not less than 450 millimetres or, if in an area subject to vehicular traffic, to a depth of not less than 600 millimetres unless rock bottom is encountered at a lesser depth, in which case the raceway shall be entrenched into the rock in a trench not less than 150 millimetres deep and grouted with concrete to the level of the rock surface.

12-930 Metal Raceways in Plaster. In buildings of noncombustible construction where circuits run in metal raceways have conductors not larger than No. 10 AWG copper or aluminum, the circuits may be laid on the face of the masonry or other material of which the walls and ceiling are constructed and may be buried in the plaster finish.

12-932 Protection for Raceways in Lanes. If subject to mechanical injury and unless otherwise protected, acceptable steel guards of not less than No. 10 MSG, adequately secured, must be installed to protect raceways less than 2 metres above grade in lanes and driveways.

12-934 Non-metallic Raceways. Non-metallic raceways shall be flame retardant unless embedded or encased in earth or by at least 50 millimetres of concrete.

12-936 Raceways Installed in Concrete, Cinder Concrete, and Cinder Fill

(1) Raceways made wholly or in part of aluminum shall not be embedded in concrete containing reinforcing steel unless:

- (a) The concrete is known to contain no chloride additives; or
- (b) The raceway has been treated with an approved bituminous base paint or other approved means to prevent galvanic corrosion of the aluminum.

(2) Where metal raceways are laid in or under cinders or cinder concrete, they shall be protected from corrosive action by a grouting of non-cinder concrete at least 25 millimetres thick entirely surrounding them unless they are 450 millimetres or more under the cinders or cinder concrete.

12-938 Raceway Completely Installed Before Conductors are Installed

(1) Raceways shall be installed as a complete system before the conductors or cables are installed in them.

(2) Conductors or cables shall not be drawn into or laid in raceways in a building under construction until the raceway fittings and conductors are reasonably safe from damage due to construction operations.

12-940 Capping of Unused Raceways. Spare or unused raceways that terminate in enclosures shall be capped.

12-942 Maximum Number of Bends in Raceways. Where it is intended that conductors are to be drawn into a raceway, a run of raceway between outlets or draw-in points shall not have more than the equivalent of four 90 degree bends including the bends located at an outlet or fitting.

Rigid and Flexible Metal Conduit

12-1000 Rigid and Flexible Metal Conduit Rules. Rules 12-1000 to 12-1014 apply only to the installation of rigid and flexible metal conduit.

12-1002 Use.

(1) Rigid and flexible metal conduit may be installed in or on buildings or portions of buildings of either combustible or noncombustible construction.

(2) Rigid metal conduit used in damp or wet locations shall be threaded and the joints and fittings shall be made watertight.

(3) Rigid metallic conduit shall not be directly buried in the earth or installed in concrete or masonry slabs in contact with the earth unless a separate grounding conductor is installed therein.

12-1004 Minimum Size of Conduits. No conduits having an internal diameter of less than $\frac{1}{2}$ inch, electrical trade size, shall be used except that:

- (a) $\frac{7}{16}$ inch and $\frac{3}{8}$ inch flexible metal conduit may be used for runs of not more than 1.5 metres for the connection of equipment; and
- (b) $\frac{3}{8}$ inch liquid-tight flexible conduit may be used as permitted by this Code.

12-1006 Conduit Threads

(1) Threads of rigid metal conduit and rigid metal conduit couplings shall be tapered.

(2) External threads shall comply with Table 40.

(3) Running threads shall not be permitted.

(4) Notwithstanding Subrule (3), where rigid metal conduit protrudes through the enclosure wall and there are not sufficient threads to accommodate a bushing per Rule 12-906(1) additional threading shall be permitted on the conduit as a continuation of the tapered thread beyond those dimensions specified in Table 40.

12-1008 Thread Engagement. The wall thickness of boxes to be drilled and tapped in the field shall be sufficient to ensure thread engagement of at least three complete threads.

12-1010 Maximum Spacing of Conduit Supports

(1) All rigid metal conduit of one size shall be securely attached to hangers or to a solid surface with the maximum spacings of the points of support not greater than:

- (a) 1.5 metres for $\frac{1}{2}$ and $\frac{3}{4}$ -inch conduit;
- (b) 2 metres for 1 and $1\frac{1}{4}$ -inch conduit;
- (c) 3 metres for $1\frac{1}{2}$ -inch conduit and larger.

(2) Where rigid metal conduits of mixed sizes are run in a group, the conduit supports shall be so arranged that the maximum support spacing will be that shown in Subrule (1) for the smallest conduit.

(3) Where flexible metal conduit is installed, it shall be secured by approved means at intervals not exceeding 1.5 metres and within 300 millimetres on each side of every outlet box or fitting, except where flexible metal conduit is fished and except for lengths of not over 900 millimetres at terminals where flexibility is necessary.

12-1012 Expansion and Contraction of Conduits

(1) In locations subject to extreme temperature changes, provision shall be made for expansion and contraction in long runs of rigid conduit in the form of:

- (a) Approved expansion joints; or
- (b) In the case of the surface-mounted rigid metal conduit only, two ninety-degree bends in the conduit run.

(2) If expansion joints are used with metal raceways, bonding jumpers shall be provided in accordance with Rule 10-614.

12-1014 Conductors in Conduit

(1) Conduits shall be of sufficient size to permit the conductors to be drawn in and withdrawn without injury to the conductors.

(2) Subrules (3), (4), and (5) refer only to complete systems and not to short sections of conduit used for the protection of portions of open wiring which would otherwise be exposed to mechanical injury.

(3) The maximum number of conductors in one conduit shall not exceed 200.

(4) The maximum number of conductors or multi-conductor cables in one conduit shall be such that the conductors or cables and their coverings will not result in a greater conduit fill than that specified in Table 8, and in this determination:

- (a) The interior cross-sectional area for various sizes of conduit shall be those specified in Table 9;

- (b) The diameter and cross-sectional area for insulated conductors not exceeding 600 volts shall, for the types listed in Table 10, be those specified in Table 10, as applicable;
 - (c) The diameter and cross-sectional area for insulated conductors (other than lead-sheathed cable) not exceeding 600 volts shall, for types not listed in Table 10, be as specified in Columns 2 and 3 of Table 10;
 - (d) The diameter and cross-sectional area for insulated conductors rated over 600 volts shall:
 - (i) If larger, for a given size, than the corresponding value given in Columns 2 and 3 of Table 10, be the nominal outside diameter of the conductor including its coverings and its equivalent area; and
 - (ii) If smaller, be in accordance with Paragraph (b) or (c), as applicable;
 - (e) The diameter and cross-sectional area for bare conductors shall be as specified in Columns 4 and 5 of Table 10;
 - (f) The diameter and cross-sectional area for multi-conductor cables including lead-sheathed cables shall be overall diameter and its equivalent area, or the diameter and area of the equivalent round construction based on its maximum dimensions.
- (5) The maximum number of conductors of the same size in one conduit, based on the requirements of Subrule (4) shall not exceed that shown as follows:
- (a) In Table 6 for single conductors (other than lead-sheathed); or
 - (b) In Table 7 for lead-sheathed conductors or cables.

Rigid PVC Conduit and Rigid HFT Conduit

12-1100 Use

- (1) Rigid PVC and HFT conduit is permitted for exposed and concealed work above and below ground in accordance with the rules for threaded rigid metal conduit subject to the provisions of Rules 12-1102 to 12-1122.
- (2) Rigid PVC and HFT conduit is permitted in cinders or cinder concrete without the grouting referred to in Rule 12-936 being required.

12-1102 Restrictions on Use

- (1) Rigid PVC and HFT conduit shall not be used:
 - (a) In hazardous locations as covered by Section 18;
 - (b) With wiring for exit signs, emergency lighting and fire alarm systems except where embedded

in at least 50 millimetres masonry or poured concrete or installed underground; or

- (c) In buildings required to be of non-combustible construction, unless:
 - (i) it has a flame spread rating and smoke developed classification as specified in the Ontario Building Code; or
 - (ii) it is concealed in a wall or a concrete floor slab.

(2) Rigid PVC conduit shall not be used where enclosed in thermal insulation.

12-1104 Temperature Limitations

- (1) Rigid PVC conduit shall not be used where normal conditions are such that any part of the conduit is subjected to a temperature in excess of 75°C.
- (2) Subrule (1) shall not prevent the use of insulated conductors having temperature ratings in excess of 75°C but such conductors shall not have ampacities exceeding those of 90°C conductors, regardless of their temperature rating.

(3) Rigid HFT conduit shall not be used where normal conditions are such that any part of the conduit is subjected to a temperature in excess of 125 degrees Celsius.

12-1106 Mechanical Protection. Rigid PVC and HFT conduit shall be protected where exposed to mechanical injury either during installation or afterwards.

12-1108 Field Bends

- (1) Rigid PVC conduit may be bent in the field provided bending equipment specifically intended for the purpose is used.
- (2) The minimum bending radius shall comply with Rule 12-922.
- (3) Rigid HFT conduit shall not be bent in the field.

12-1110 Support of Luminaires. Rigid PVC boxes shall not be used for the support of luminaires unless they are marked as being suitable for the purpose.

12-1112 Fittings

- (1) Rigid PVC and HFT conduit including elbows and bends shall not be threaded but shall be used with approved adapters and couplings which shall be applied in an acceptable manner with approved solvent cement.
- (2) Female threaded PVC or HFT adapters shall be used together with a metallic conduit nipple to terminate at threaded conduit entries in metallic enclosures.

12-1114 Maximum Spacing of Conduit Supports

(1) All rigid PVC and HFT conduit of one size shall be securely attached to hangers or to a solid surface with the maximum spacing of the points of supports not greater than:

- (a) 750 millimetres for ½, ¾, and 1-inch conduit;
- (b) 1.2 metres for 1¼ and 1½-inch conduit;
- (c) 1.5 metres for 2-inch conduit;
- (d) 1.8 metres for 2½ and 3-inch conduit;
- (e) 2.1 metres for 3½, 4, and 5-inch conduit; and
- (f) 2.5 metres for 6-inch conduit.

(2) Where conduits of mixed sizes are run in a group, the conduit supports shall be arranged so that the maximum support spacing will be that shown in Subrule (1) for the smallest conduit.

(3) Except where encased or embedded in at least 50 millimetres of masonry or poured concrete, conduits shall not be clamped tightly but shall be supported in such a manner as to permit adequate lineal movement to allow for expansion and contraction of the conduit due to temperature change.

12-1116 Support of Equipment. Rigid PVC and HFT conduit shall not be used to support fixtures or other equipment except as permitted by Rule 12-3014(2).

12-1118 Expansion Joints. Unless the conduit is grouted in concrete, at least one expansion joint shall be installed in any conduit run where the expansion of the conduit due to the maximum probable temperature change during and after installation will exceed 45 millimetres.

12-1120 Maximum Number of Conductors. The maximum number of conductors in rigid PVC and HFT conduit shall be determined as for conduit in accordance with Rule 12-1014.

12-1122 Provision for Bonding. A separate bonding conductor shall be installed in rigid PVC and HFT conduit in compliance with Rule 10-404.

Rigid Types EB1 and DB2/ES2 PVC Conduit

12-1150 Use Permitted. Rigid Types EB1 and DB2/ES2 PVC conduit and fittings are permitted to be used:

- (a) For installation underground in accordance with Rule 12-928 except that Type EB1 conduits shall be laid with its entire length encased or embedded in at least a 50 millimetres envelope of masonry or poured concrete; or
- (b) In walls, floors, and ceilings where encased or

embedded in at least 50 millimetres of masonry or poured concrete.

12-1152 Restrictions in Use. Rigid Types EB1 and DB2/ES2 conduit and fittings shall not be used:

- (a) Above ground except as permitted by Rule 12-1150(b); or
- (b) In hazardous locations.

12-1154 Temperature Limitations. Temperature limitations shall comply with Rule 12-1104.

12-1156 Field Bends. Field bends shall comply with Rule 12-1108.

12-1158 Fittings

(1) Rigid Types EB1 and DB2/ES2 PVC conduit including elbows, bends, and other fittings fabricated from rigid Type EB1 and DB2/ES2 PVC conduit shall not be threaded.

(2) Notwithstanding Subrule (1), threaded adapters, acceptable for use in making threaded connections when properly attached to the conduit, are permitted to be used.

12-1160 Maximum Number of Conductors. The maximum number of conductors in rigid Types EB1 and DB2/ES2 PVC conduit shall be in accordance with Rule 12-1014.

12-1162 Method of Installation

(1) All cut edges shall be trimmed to remove rough edges.

(2) All joints between conduit lengths and between conduit lengths and bends, adapters, or separate couplings shall be made by a method specified for the purpose.

(3) Rigid Types EB1 and DB2/ES2 PVC conduit shall be secured mechanically to prevent disturbance of their alignment during construction.

12-1164 Split Straight Conduit. In existing underground or concrete embedded installations only, raceways may be formed using split straight conduit provided that:

- (a) Both halves of each conduit length are properly matched and clamped together to form a close-fitting concrete-tight joint;
- (b) Each length of conduit is tightly clamped at each end, with additional clamps spaced not more than 900 millimetres apart; and
- (c) Clamps made of stainless steel or other acceptable corrosion-resistant material are used when not embedded in concrete.

12-1166 Provision for Bonding. A separate bonding conductor shall be installed in rigid Types EB1 and DB2/ES2 conduit in compliance with Rule 10-404.

Rigid Types I and II Non-Metallic Bituminized-Fibre and Asbestos-Cement Conduits

12-1200 Scope. Rules 12-1202 to 12-1214 apply to the installation of rigid non-metallic conduits, Types I and II made of bituminized-fibre or asbestos-cement.

12-1202 Use Permitted. Types I and II rigid non-metallic conduit and fittings approved for the purpose may be used:

- (a) For installation underground in accordance with Rule 12-012 for raceways, except that Type I conduit shall be laid with its entire length encased or embedded in at least 50 millimetres of masonry or poured concrete; or
- (b) In walls, floors, and ceilings where encased or embedded in at least 50 millimetres of masonry or poured concrete.

12-1204 Use Prohibited. Types I and II rigid non-metallic conduit shall not be used:

- (a) Above ground except as permitted by paragraph (b) of Rule 12-1202;
- (b) Where subject to physical damage; or
- (c) In hazardous locations as covered by Section 18.

12-1206 Method of Installation

(1) All cut edges shall be trimmed inside and outside to remove rough edges.

(2) Types I and II rigid non-metallic conduit including elbows and bends shall not be threaded but shall be used with approved adapters and couplings.

(3) All joints between the conduit and couplings, fittings and boxes shall be made by a method and with tools specified for the purpose.

(4) Types I and II rigid non-metallic conduit shall be secured mechanically to prevent disturbance of the alignment during construction.

12-1208 Split Straight Conduit. In existing underground or concrete embedded installations only, raceways may be formed using split straight conduit, provided that:

- (a) Both halves of each conduit length are properly matched and clamped together to form a close-fitting concrete-tight joint;
- (b) Each length of conduit is tightly clamped at each end with additional clamps spaced not more than 900 millimetres apart; and

- (c) Clamps made of stainless steel or other corrosion-resistant material are used when not embedded in concrete.

12-1210 Maximum Number of Conductors. The maximum number of conductors in Types I and II rigid non-metallic conduit shall be determined as for conduit in accordance with Rule 12-1014.

12-1212 Temperature Limitations

(1) Rigid Types I and II non-metallic bituminized-fibre conduit shall not be used where normal conditions are such that any part of the conduit is subjected to a temperature in excess of 80°C unless the conduit is marked to indicate it has a finish suitable for a maximum temperature of 110°C.

(2) Subrule (1) shall not prevent the use of insulated conductors having temperature ratings in excess of 80°C, but such conductors shall not have ampacities exceeding those of 90°C conductors regardless of their temperature rating.

12-1214 Corrosion Protection for Cables Installed in Asbestos-Cement Conduit. Metallic materials used as concentric neutrals, sheaths, or armour on cables installed in asbestos-cement conduit shall be protected against corrosion by the application of an acceptable non-metallic covering.

Liquid-Tight Flexible Conduit

12-1300 Scope. Rules 12-1302 to 12-1306 apply only to Liquid-Tight Flexible Conduit.

12-1302 Use of Liquid-Tight Flexible Conduit.

(1) Liquid-tight flexible conduit is permitted where a flexible connection is required in dry, damp or wet locations and where permitted by other Sections of this Code.

(2) Runs of not more than 1.5 metres of 3/8 inch liquid-tight flexible conduit are permitted for the connection of equipment.

(3) Liquid-tight flexible conduit shall not be used:

- (a) Where subject to mechanical damage;
- (b) As a general-purpose raceway;
- (c) In lengths greater than that essential for the degree of flexibility required;
- (d) Where exposed to gasoline or similar light petroleum solvents, corrosive liquids, or vapours having an injurious effect on the outer jacket;
- (e) Under conditions such that the temperature will exceed 60 degrees Celsius unless marked for a higher temperature; or
- (f) Where flexing at low temperatures may cause injury to the flexible conduit.

12-1304 Maximum Number of Conductors

(1) The maximum number of conductors in liquid-tight flexible conduit shall be in accordance with Rule 12-1014.

(2) For the purposes of Subrule (1) the cross-sectional area of $\frac{3}{8}$ inch trade size shall be considered as 0.184 square inches.

12-1306 Provision for Bonding. A separate bonding conductor shall be installed in liquid-tight flexible conduit in accordance with Section 10.

Electrical Metallic Tubing

12-1400 Electrical Metallic Tubing Rules. Rules 12-1402 to 12-1414 apply only to electrical metallic tubing.

12-1402 Use

(1) Electrical metallic tubing may be used for exposed and concealed work except that it shall not be used:

- (a) Where it shall be subject to mechanical injury either during installation or afterwards;
- (b) In any hazardous location;
- (c) Where exposed to corrosive vapour except as permitted by Rule 2-112;
- (d) For direct earth burial;
- (e) In wet locations;
- (f) In concrete or masonry slabs in contact with the earth, unless a separate bonding conductor is installed in the tubing.

(2) Electrical metallic tubing may be installed in or on buildings or portions of buildings of either combustible or noncombustible construction.

12-1404 Supports. Electrical metallic tubing shall be installed as a complete system and shall be securely fastened in place within 1 metre of each outlet box, junction box, cabinet, coupling or fitting, and the spacing between supports shall be in accordance with those given in Rule 12-1012.

12-1406 Minimum Tubing Size. The tubing shall have an internal diameter of not less than $\frac{1}{2}$ inch electrical trade size.

12-1408 Maximum Number of Conductors. A tube shall not contain more conductors of a given size than are specified in the Rule 12-1014.

12-1410 Connections and Couplings. Where lengths of electrical metallic tubing are coupled together or connected to boxes, fittings or cabinets, the fittings shall be:

- (a) Of the concrete-tight type for installation in poured concrete or in masonry block walls in which cores are filled with concrete or grout;
- (b) Of the rain-tight type for installations exposed to the weather; and
- (c) Of the standard type, concrete-tight, or rain-tight type for installation in ordinary locations or buried in plaster or masonry block walls.

12-1412 Radii of Bends in Tubing

(1) Bends in the tubing shall be made so as not to injure the tubing or reduce its internal diameter.

(2) Where conductors which are not lead-sheathed are used, the radius of the curve of the inner edge of bends made during installation shall be at least 6 times the internal diameter of the tubing.

(3) Where lead-sheathed conductors are used, the radius of the curve of the inner edge of bends made during installation shall be at least 10 times the internal diameter of the tubing.

Electrical Nonmetallic Tubing

12-1500 Electrical Nonmetallic Tubing Rules. Rules 12-1502 to 12-1516 apply only to electrical non-metallic tubing.

12-1502 Use

(1) Electrical nonmetallic tubing is permitted where concealed in walls or encased in concrete.

(2) Electrical nonmetallic tubing is not permitted for use in:

- (a) Unless provided with mechanical protection where subject to damage either during or after construction;
- (b) In any hazardous location;
- (c) For direct burial;
- (d) Where enclosed in thermal insulation; or
- (e) Where exposed.

12-1504 Supports. Electrical nonmetallic tubing shall be securely fastened in place within 1 metre of each outlet box, junction box, cabinet, coupling or fitting, and the spacing between supports shall be not more than 1 metre.

12-1506 Maximum Number of Conductors. No piece of electrical nonmetallic tubing shall contain more conductors of a given size than are specified in Rule 12-1014.

12-1508 Temperature Limitations

- (1) Electrical nonmetallic tubing shall not be used

where normal conditions are such that any part of the tubing is subject to a temperature in excess of 75 degrees Celsius.

(2) Subrule (1) does not prevent the use of insulated conductors having insulation temperature ratings in excess of 75 degrees Celsius, but such conductors shall not have ampacities exceeding those for conductors having insulation rated at 90 degrees Celsius.

12-1510 Connections and Couplings. Where lengths of electrical nonmetallic tubing are coupled together or connected to boxes, fittings or cabinets, fittings designed for the purpose shall be used.

12-1512 Support of Equipment. Electrical nonmetallic tubing shall not be used to support fixtures or other equipment.

12-1514 Radii of Bends in Tubing

(1) Bends in tubing shall be made so as not to injure the tubing or reduce its internal diameter.

(2) The radius of the curve of the inner edge of bends made during installation shall be of a least 6 times the internal diameter of the tubing.

12-1516 Provision for Bonding. A separate bonding conductor shall be installed in electrical nonmetallic tubing in compliance with Rule 10-404.

Surface Raceways

12-1600 Use

(1) Surface raceways shall be installed only in dry locations.

(2) Metallic surface raceways less than 0.0309 inch thick and non-metallic surface raceways shall be used only as extensions to wiring systems where:

(a) The voltage between conductors contained therein is not in excess of 300 volts; and

(b) The voltage-to-ground is not in excess of 150 volts.

(3) Surface raceways shall not be used:

(a) Where concealed; or

(b) Where subject to severe physical damage unless approved for the purpose.

(4) Surface raceways shall not be used for:

(a) Conductors larger than No. 2/0 AWG; or

(b) The support of luminaires or lighting equipment.

(5) Non-metallic surface raceways shall not be used under either of the following conditions:

(a) Where the ambient temperature exceeds 50°C; or

(b) With conductors having insulation exceeding 75°C unless conductor ampacity is derated to that of a 75°C conductor.

12-1602 Joints and Splices. Joints and splices are permitted in surface raceways having a removable cover that is accessible after installation and shall not fill the raceway to more than 75 per cent of its area at that point.

12-1604 Supports. The backing of a surface raceway shall be secured in position in such a manner that the fastening means will not damage conductor insulation.

12-1606 Provisions for Bonding. A separate bonding conductor shall be installed in non-metallic surface raceways in compliance with Rule 10-404.

12-1608 Conductors in Surface Raceways

(1) Conductors used in surface raceways shall be of types indicated in Table 19 as being suitable for use in raceways.

(2) Surface raceways shall contain not more than 200 conductors and the aggregate cross-sectional area of the insulated conductors shall not exceed 40 per cent of the minimum available cross-sectional area of the surface raceway.

(3) The cross-sectional area for conductors in Subrule (2) shall be determined in accordance with Rule 12-1014(4).

12-1610 Surface Raceways through Walls and Floors

(1) Metallic surface raceways may be extended through walls, partitions, and floors in dry locations only, and shall be in unbroken lengths where passing through.

(2) Non-metallic surface raceways shall be so installed as to not pass through a floor, partition, or wall, although, where necessary, exposed sections may be interconnected by other approved wiring methods.

12-1612 Flat Cable Systems

(1) Flat cables, consisting of parallel conductors and side wings formed with integral insulation specifically designed for field installation in metal surface raceways with tap fittings and end cap devices shall be used only:

(a) In branch circuits; and

(b) In horizontal runs with the conductors uppermost in the raceway.

(2) Metal surface raceways when used with flat

cables may have covers on the underside omitted when installed out-of-reach.

Underfloor Raceways

12-1700 Where Underfloor Raceways Are Permitted

- (1) Underfloor raceways may be installed under the surface of concrete or other flooring material, but not below the floor.
- (2) Underfloor raceways shall not be used:
 - (a) Where they will be exposed to corrosive vapours;
 - (b) In a hazardous location;
 - (c) In commercial garages;
 - (d) In storage-battery rooms; or
 - (e) On the underside of the floor.

12-1702 Method of Installing Underfloor Raceways

- (1) Underfloor raceways shall be installed in accordance with the manufacturer's instructions in addition to the other requirements of this Rule.
- (2) Underfloor raceways shall be laid so that their centre-line coincides with a straight line drawn between the centres of successive junction boxes.
- (3) The raceways shall be mechanically secured to prevent disturbance of the alignment during construction.
- (4) The joints along the edges of the raceways and between the raceways, couplings, and junction boxes; and between the junction box cover-plates and coverings shall be filled with an approved waterproof cement.
- (5) The raceways shall be arranged so there are no low points or traps at the fittings or in the raceway run and crossings shall be avoided where possible.

12-1704 Fittings for Underfloor Raceways

- (1) Where underfloor raceways are run at other than right angles, special fittings shall be provided if required.
- (2) The raceways shall be connected to distribution centres and wall outlets by conduit or approved fittings.
- (3) Dead-ends of the raceways shall terminate in junction boxes or other approved fittings.

12-1706 Taps and Splices in Underfloor Raceways. Taps and splices in underfloor raceways shall be made only in header access units or in junction boxes.

12-1708 Inserts and Junction Boxes for Underfloor Raceways

(1) Inserts and outlets in underfloor raceways shall be made electrically and mechanically secure.

(2) Inserts other than the preset type shall be attached to the raceways and where they are not made mechanically secure by being grouted in separately, they shall not be set until the floor is laid.

(3) Inserts and junction boxes shall be levelled to the grade of the floor and sealed with water-tight plugs.

12-1710 Setting of Inserts. When setting inserts or cutting through the walls of underfloor raceways, adequate precautions shall be taken to prevent chips and dirt from falling into the raceway, and special tools designed for the purpose and for preventing the tools from entering the raceway and injuring the conductors shall be used.

12-1712 Discontinued Outlets in Underfloor Raceways. Where an outlet in an underfloor raceway is discontinued, the conductors supplying the outlet shall be removed from the underfloor raceway.

12-1714 Area of Conductors in Underfloor Raceways

- (1) The aggregate cross-sectional area of the conductors and their insulation in an underfloor raceway shall not exceed 40 per cent of the interior cross-sectional area of the raceway.
- (2) Subrule (1) shall not apply where the raceway contains only mineral-insulated cable, aluminum-sheathed cable, armoured cable, or non-metallic sheathed cable.
- (3) The cross-sectional areas for conductors in Subrule (1) shall be determined in accordance with Rule 12-1014(4).

12-1716 Underfloor Raceway Junction Boxes. Junction boxes shall not be used as outlet boxes in underfloor raceways.

12-1718 Inserts in Post- and Pre-stressed Concrete Floors

- (1) Where underfloor distribution raceways are used with post-stressed or pre-stressed poured-in-place floors they shall be supplied with preset inserts.
- (2) After-set inserts or after-set access units shall not be placed into such a system unless approved by the structural engineer.

Cellular Floors

12-1800 Installation. Cellular floors shall be installed in accordance with the manufacturer's instructions.

12-1802 Conductors in Cellular Floors

(1) Conductors shall not be installed in a cellular floor raceway:

- (a) Where they will be exposed to corrosive vapours;
- (b) In a hazardous location;
- (c) In commercial garages; or
- (d) In storage-battery rooms.

(2) Conductors shall not be installed in any cell or header which contains a pipe for steam, water, air, gas, drainage, or other non-electrical service.

(3) Where the cell or header contains such non-electrical services, the cell or header shall be sealed, where practicable, in an acceptable manner.

(4) All conductors of a circuit shall be contained in the same cell of a cellular floor and except as permitted by Rule 12-3036, the circuits of different systems shall not be contained therein.

12-1804 Maximum Conductor Size in Cellular Floors. No conductor larger than No. 0 AWG copper or aluminum shall be installed in a cellular floor unless the installation is lawful under Rule 2-030.

12-1806 Cross-Sectional Area of Cellular Floors

(1) Where a cellular floor contains other than mineral-insulated cable, aluminum-sheathed cable, armoured cable, or non-metallic sheathed cable, the aggregate cross-sectional area of the conductors in the raceway shall not exceed 40 per cent of the interior area of the header feeding the individual cells.

(2) The cross-sectional areas, for conductors in Subrule (1) shall be determined in accordance with Rule 12-1014(4).

12-1808 Taps and Splices in Cellular Floors. Splices and taps in cellular floors shall be made only in header access-units or in junction boxes.

12-1810 Cellular Floor Markers. Where cellular floors are used, a suitable number of markers shall be installed for the future location of cells and for a system identification, and the markers shall extend through the floor.

12-1812 Cellular Floor Junction Boxes

(1) Junction boxes used in cellular floors shall be levelled to floor grade and sealed against the entrance of water.

(2) The junction boxes shall be constructed of metal and shall be electrically continuous with the headers.

(3) Electrical continuity of cellular metal-floor raceway sections shall be obtained by spot welding or other equivalent means.

(4) Spot welding shall be done in open spaces between cells and not to the cell walls.

12-1814 Provisions for Bonding

(1) A separate bonding conductor shall be installed in electrical cells and headers and shall be sized in accordance with Table 16.

(2) Metallic headers, cells and fittings shall be bonded to ground in accordance with Rule 10-500.

12-1816 Cellular Floor Inserts

(1) Inserts in cellular floors shall be levelled to floor grade and sealed against entrance of water.

(2) Inserts shall be made of metal and shall be electrically continuous with the cellular metal-floor members.

(3) When setting inserts or cutting through cell walls adequate precautions shall be taken to prevent chips and dirt from falling into the cell and for preventing tools from entering the cells and injuring the conductors therein.

12-1818 Cellular Floor Extensions. Connections from cellular floors to cabinets and extensions from cells to outlets shall be made by means of rigid conduit, flexible metal conduit, or fittings approved for the purpose.

12-1820 Cellular Floor Discontinued Outlets. Where an outlet is discontinued the conductors supplying the outlet shall be removed from the cellular floor.

Auxiliary Gutters**12-1900 Where Auxiliary Gutters are Used to Supplement Wiring Spaces**

(1) Where auxiliary gutters are used to supplement wiring spaces at meter centres, distribution centres, switchboards, and similar points in interior-wiring systems, the gutters may enclose conductors and cables but they shall not be used to enclose bus bars, switches, overcurrent devices, or other appliances or apparatus.

(2) The auxiliary gutters shall not extend more than 6 metres beyond the equipment which they supplement, and thereafter the conductors may be contained in approved wireways or busways.

12-1902 Auxiliary Gutter Supports. Auxiliary gutters shall be securely supported throughout their entire length at intervals of not more than 1.5 metres unless the gutter is plainly marked to indicate a greater distance.

12-1904 Auxillary Gutter Cross-Sectional Area

(1) The aggregate cross-sectional area of the conductors and their insulation at a cross-section of an auxiliary gutter shall not exceed 20 per cent of the cross-sectional area of the gutter at that point.

(2) A single compartment of an auxiliary gutter shall not contain more than 200 conductors at a cross-section.

(3) The cross-sectional areas for conductors in Subrule (1) shall be determined in accordance with Rule 12-1014(4).

Busways and Splitters**12-2000 Use**

(1) Busways and splitters may be used only for exposed work except as permitted in Subrules (5) and (6) of this Rule.

(2) Busways and splitters shall not be installed outdoors or in wet or damp locations, unless specifically approved for use in such locations.

(3) Busways, splitters and fittings shall not be placed:

- (a) Where subject to mechanical injury;
- (b) Where subject to corrosive vapours;
- (c) In hoistways;
- (d) In hazardous locations; or
- (e) In storage-battery rooms.

(4) Busways may be used as risers in buildings of noncombustible construction when provided with acceptable fire stops.

(5) Busways may be installed in false ceiling spaces provided that the installation is lawful under Rule 2-030 and that,

- (a) Ventilation is adequate to prevent development of ambient temperatures in excess of 30°C, otherwise the rating of the busway shall be reduced to 82, 71, and 58 per cent for ambients of 40°C, 45°C, or 50°C respectively, but in no case shall the ambient be higher than 50°C;
- (b) Any take-off devices located in the false ceiling do not contain overcurrent protection;
- (c) Adequate working space exists between the busway and other services or structural parts;
- (d) The busway is of the totally-enclosed type except that ventilated type may be used provided that, in addition:
 - (i) The bus bars are insulated for their full length, including joints between sections,

unless provision is made which effectively fully encloses the bare bus bars;

- (ii) The false ceiling is not combustible; and
 - (iii) No combustible material is located within 150 millimetres of the busway;
- (e) If installed in areas used for the building ventilation system, the busway is of the totally-enclosed type.

(6) A splitter with a separate screw or stud for each connection shall be installed, in a readily accessible location, where two or more conductors are connected to a conductor larger than No. 6 AWG copper or No. 4 AWG aluminum.

(7) Splitters may be installed flush in a wall provided they are accessible by removable covers.

12-2002 Extensions from Busways and Splitters. Rigid conduit, flexible metal conduit, surface raceways, cable trays, electrical metallic tubing, armoured cable, metal-sheathed conductors or cable, or, where necessary, acceptable cord assemblies approved for hard usage, shall be used in extensions from busways and splitters and shall be connected to the busway or splitter in a manner appropriate to the material used in accordance with Rule 12-3026.

12-2004 AC Circuits in Busways and Splitters. Where alternating current is used, all conductors of a circuit shall be placed within the same busway, splitter or section thereof, if the latter is made of magnetic material.

12-2006 Busway and Splitter Supports

(1) Busways installed horizontally shall be supported at intervals not greater than 1.5 metres unless marked for support at greater intervals.

(2) Busways installed vertically shall be marked for vertical installation.

(3) Busways installed vertically shall be supported at each floor and at an interval not greater than 1.5 metres unless marked for support at greater intervals.

(4) Busways shall be installed so that supports and joints are accessible for maintenance purposes after installation.

(5) Splitters shall be supported at intervals not greater than 1.5 metres unless marked for support at greater intervals.

12-2008 Method of Installation of Busways

(1) Where busways extend transversely through dry walls or partitions, they shall pass through the walls or partitions in unbroken lengths and shall be totally enclosed where passing through walls or partitions constructed of combustible materials or masonry walls containing voids at the point where the busway passes through.

(2) Busways may extend vertically through floors in dry locations if they are:

- (a) Totally enclosed where passing through the floor and for the first 300 millimetres above the floor; and
- (b) Provided with acceptable fire stops.

(3) Busways shall be provided with adequate protection against mechanical injury and personal contact with live parts for a distance of 2 metres above any floor in an area accessible to other than qualified persons.

(4) Dead ends of busways shall be closed by approved fittings.

(5) Busways installed outdoors or in parking areas and which are accessible to other than authorized persons shall be of the totally enclosed type.

12-2010 Plug-In Devices for Busways. When busways supply machine tools, a switch need not be furnished on the machine tool if:

- (a) A plug-in device having a horsepower rating is used; and
- (b) The means of operating the plug-in device is readily within reach of the operator.

12-2012 Reduction in Size of Busways. Overcurrent protection may be omitted at points where busways are reduced in size, provided that the smaller busway:

- (a) Does not extend more than 15 metres;
- (b) Has a current rating at least equal to one-third the rating or setting of the overcurrent devices next back on the line;
- (c) Is free from contact with combustible material; and
- (d) Has an ampacity adequate for the intended load.

12-2014 Length of Busways Used as Branch Circuits

(1) Busways which are used as branch circuits, and which are designed so that loads can be connected at any point, shall be limited to such lengths as will provide that in normal use the circuits will not be overloaded.

(2) In general, the length of such run in feet should not exceed 3 times the ampere rating of the branch circuit.

12-2016 Manufacturer's Identification on Busways and Splitters. Busways and splitters shall be marked so that the manufacturer's name, trade mark, or other recognized symbol of identification shall be readily legible when the installation is completed.

12-2018 Taps in Splitters. Taps from bus bars or terminal blocks in splitters shall issue from the box on the side thereof nearest to the terminal connections and the conductors shall not be brought into contact with uninsulated current-carrying parts of opposite polarity.

12-2020 Circuit Restrictions in Splitters. Splitters shall be used only for the purpose of making connections to the bus bars or terminal blocks and shall not be used as a pull box for the conductors of other circuits not connected to the main distribution terminals within the box.

12-2022 Bus Bars in Splitters. Where a splitter exceeds 2 metres in length or the connected load exceeds 600 amperes, a splitter, if used, shall be provided with bus bars extending approximately the full length of the enclosure.

Wireways

12-2100 Where Wireways May Be Used

(1) Wireways may be used only for exposed work and shall not be installed outdoors, or in wet or damp locations, unless specifically approved for such locations.

(2) Wireways and fittings shall not be placed:

- (a) Where subject to mechanical injury;
- (b) Where subject to corrosive vapours;
- (c) In hoistways;
- (d) In hazardous locations; or
- (e) In storage-battery rooms.

(3) Wireways may be used as risers in buildings of noncombustible construction when provided with acceptable fire stops.

12-2102 Method of Installation of Wireways

(1) Where wireways extend transversely through dry walls or partitions, they shall pass through the walls or partitions in unbroken lengths.

(2) Wireways shall be securely supported at intervals of not more than 5 feet, unless they are plainly marked to indicate greater distances.

(3) Dead-ends of wireways shall be closed by approved fittings.

(4) Wireways shall be provided with adequate protection against mechanical injury for a distance of 2 metres above any floor in an area accessible to other than qualified persons.

12-2104 Conductors in Wireways

(1) Conductors used in wireways shall be the insulated types indicated in Table 19 as being suitable for use in raceways.

(2) Except as permitted in Subrule (4) wireways shall contain not more than 200 conductors and the aggregate cross-sectional area of the conductors and their insulation shall not exceed 20 per cent of the interior cross-sectional area of the wireway.

(3) No conductors larger than 500 MCM copper or 750 MCM aluminum shall be contained in any wireway.

(4) Wireways containing only signal and control conductors may contain any number of conductors but the aggregate cross-sectional area of the conductors and their insulation shall not exceed 40 per cent of the interior cross-sectional area of the wireway.

(5) The cross-sectional area for conductors in Subrules (2) and (4) shall be determined in accordance with Rule 12-1014(4).

12-2106 Taps and Splices in Wireways. Where splices and taps are made on feeders or branch circuits within wireways, they shall be made and insulated by acceptable methods and shall be made accessible.

12-2108 Extensions from Wireways. Rigid conduit, flexible metal conduit, surface raceways, cable trays, electrical metallic tubing, armoured cable, metal-sheathed conductors or cable, or, where necessary, acceptable cord assemblies approved for hard usage, shall be used in extensions from wireways and shall be connected to the wireway in a manner appropriate to the material used in accordance with Rule 12-3026.

12-2110 AC Circuits in Wireways. Where alternating current is used, all conductors of a circuit shall be placed within the same wireway, or section, thereof, if the latter is made of magnetic material.

12-2112 Manufacturer's Identification on Wireways. Wireways shall be marked so that the manufacturer's name, trade mark, or other recognized symbol of identification shall be readily legible when the installation is completed.

Cable Trays

12-2200 Restriction of Use. Cable trays shall not be used in any hazardous location except as permitted by Rule 18-068.

12-2202 Method of Installation

(1) Cable trays shall be installed as a complete system using fittings or other acceptable means to provide adequate cable support and bending radius before the conductors are installed.

(2) The maximum design load and associated support spacing shall not exceed the values specified in Table 42.

(3) Cable trays shall not pass through walls except where the walls are constructed of noncombustible material.

(4) Cable trays may extend vertically through floors in dry locations, if provided with acceptable fire stops, and if totally enclosed where passing through and for a minimum distance of 2 metres above the floor to provide adequate protection from mechanical injury.

(5) Cable trays shall be adequately supported by noncombustible supports.

(6) Dead ends of cable trays shall be closed by the use of proper fittings.

(7) The minimum clearances for cable trays shall be:

- (a) 150 millimetres vertical clearance, excluding depth of cable trays, between cable trays installed in tiers except where cables of 2-inch diameter or greater may be installed, the clearance shall be 300 millimetres;
- (b) 300 millimetres vertical clearance from the top of the cable tray to all ceilings, heating ducts and heating equipment and 150 millimetres for short length obstruction; and
- (c) 600 millimetres horizontal clearance on one side of cable trays mounted adjacent to one another or to walls or other obstructions.

12-2204 Conductors in Cable Trays. Conductors for use in cable trays shall be listed in Table 19 and except as permitted in Subrules (1) and (2) shall have a continuous metal sheath or interlocking armour.

(1) Type TC tray cable shall be permitted in cable trays in areas of industrial establishments which are inaccessible to the public provided the cable is:

- (a) installed in conduit or other suitable raceway when not in cable tray;
- (b) provided with mechanical protection where subject to damage either during or after installation;
- (c) be no smaller than 1/0 AWG if single conductor; and
- (d) installed only where qualified persons service the installation.

(2) Conductors having moisture-resistant insulation and flame tested non-metal coverings or sheaths of a type listed in Table 19 shall be permitted in ventilated or non-ventilated cable trays where not subject to damage during or after installation in:

- (a) electrical equipment vaults and service rooms; and
- (b) in other locations that are inaccessible to the public and constructed as a service room if the presence of the conductors in the cable trays in such other locations is lawful under Rule 2-030.

(3) Single conductors shall be fastened to prevent excessive movement due to fault-current magnetic forces.

(4) Where single conductors are fastened to cable trays, precautions shall be taken to prevent overheating of the fasteners due to induction.

12-2206 Joint and Splices Within Cable Trays. Where joints and splices are made on feeders or branch circuits within cable trays, they shall be made and insulated by acceptable methods and shall be in accessible locations.

12-2208 Connection to Other Wiring Methods. Where cable trays are connected to other wiring methods, the arrangement shall be such that the conductors will not be subject to mechanical damage or abrasion, and such that effective bonding will be maintained.

12-2210 Provision for Bonding

(1) Where metal supports for cable trays are bolted to the tray and are in good electrical contact with the grounded structural metal frame of a building, the tray shall be deemed to be bonded to ground.

(2) Where the conditions of Subrule (1) do not apply, the cable tray shall be adequately bonded at intervals not exceeding 15 metres and the size of bonding conductors shall be based on the maximum rating or setting of an overcurrent device in the circuits carried by the cable tray in accordance with the requirements of Rule 10-814.

12-2212 Ampacities of Conductors in Cable Trays

(1) In ventilated and ladder-type cable trays, where the air space between conductors, cables, or both is maintained at greater than 100 per cent of the largest conductor or cable diameter, the ampacity of the conductors or cables shall be the value specified in Paragraph (a) or (b):

(a) Single conductors, single-conductor metal-sheathed or armoured cable and single-conductor-mineral-insulated cable, as specified in Tables 1 and 3; and

(b) Multiconductor cables as specified in Tables 2 and 4, multiplied by the correction factors in Table 5C for the number of conductors in each cable.

(2) In ventilated and ladder-type cable trays, where the air space between conductors, cables or both is maintained at not less than 25 per cent or more than 100 per cent of the largest conductor or cable diameter, the ampacity of the conductors or cables shall be the value specified in Subrule (1) multiplied by the correction factor specified in Table 5D for the arrangement and number of conductors or cables involved or the value specified in Subrule (1) multiplied by such other correction factor as is lawful under Rule 2-030.

(3) In ventilated and ladder-type cable trays, where the air space between conductors, cables or both is less than 25 per cent, and for any spacing in a non-ventilated cable tray, the ampacity of the conductors or cables shall be the value as specified in Table 2 or 4 multiplied by the correction factor specified in Table 5C for the total number of conductors in the cable tray.

(4) In determining the total number of conductors in the cable tray in Subrule (3), Rule 4-004 (7) shall apply.

(5) Where cable trays are located in room temperatures above 30°C the temperature correction factor of Table 5A shall be applied to the ampacities determined from Subrules (1), (2), and (3) as applicable.

Lighting Fixture Raceways

12-2300 Use

(1) Lighting fixture raceways shall be installed only in dry locations.

(2) Lighting fixture raceways less than 0.0309 inch in thickness shall be used only where the voltage does not exceed 300 volts between conductors or 150 volts-to-ground.

12-2302 Conductors. Lighting fixture raceways shall not be used for:

(a) Conductors larger than No. 6 AWG copper or aluminum;

(b) A greater number of conductors for which it is approved;

(c) More than 10 conductors; and

(d) Conductors with insulation rated less than 75°C.

12-2304 Support

(1) Lighting fixture raceways shall be supported in accordance with the Manufacturer's instructions.

(2) Lighting fixture raceways shall support the weight of lighting fixtures in accordance with the Manufacturer's instructions.

12-2306 Fittings

(1) Where a lighting fixture raceway is mounted with the open side of the channel down, fittings approved for the purpose shall be used for holding the conductors in place when the cover is not in position.

(2) At areas where the lighting fixture raceway is intended for the connection of rigid conduit, EMT, armoured cable, or similar wiring methods the metal shall not be less than 0.0309 inch in thickness.

12-2308 Flat Cable Systems

(1) Flat cables consisting of parallel conductors and

side wings formed with integral insulation specifically designed for field installation in lighting fixture raceways with tap fittings and end cap devices shall be used only:

- (a) In branch circuits; and
- (b) In horizontal runs with the conductors uppermost in the raceways.

(2) Lighting fixture raceways when used with flat cables may have covers on the underside omitted when installed out-of-reach.

Rigid RE Conduit

12-2400 Rigid RE Conduit Rules. Rules 12-2400 to 12-2412 apply only to rigid RE conduit.

12-2402 Use Permitted. Rigid RE conduit, adapters, separate couplings and bends approved for the purpose may be used:

- (a) For installation underground in accordance with Rule 12-012 for raceways; or
- (b) In walls, floors, and ceilings where encased or embedded in at least 50 millimetres of masonry or poured concrete.

12-2404 Use Prohibited. Rigid RE conduit shall not be used:

- (a) Above ground except as permitted by Paragraph (b) of Rule 12-2402; or
- (b) In hazardous locations as covered by Section 18.

12-2406 Method of Installation

(1) All cut edges shall be trimmed to remove rough edges.

(2) Rigid RE conduit, separate couplings and bends shall not be threaded.

(3) All joints between conduit lengths and between conduit lengths and bends, adapters, or separate couplings shall be made by a method specified for the purpose.

12-2408 Fittings. Rigid RE conduit separate couplings and bends shall be used with approved adapters.

12-2410 Temperature Limitations. Rigid RE conduit shall not be used where normal conditions are such that any part of the conduit is subjected to a temperature in excess of 110°C.

12-2412 Maximum Number of Conductors. The maximum number of conductors in rigid RE conduit shall be determined as for conduit in accordance with Rule 12-1014.

INSTALLATION OF BOXES, CABINETS, OUTLETS AND TERMINAL FITTINGS

12-3000 Maximum Number of Outlets Per Circuit

(1) There shall be not more than 12 outlets on any 2-wire branch circuit except as permitted by other Rules of this Code.

(2) Such outlets shall be considered to be rated at not less than one ampere per outlet except as permitted by Subrule (3).

(3) Where the connected load is known, the number of outlets may exceed 12 providing the load current does not exceed 80 per cent of the rating of the overcurrent device protecting the circuit.

(4) Where fixed multi-outlet assemblies are used, each 1.5 metres or fraction thereof of each separate and continuous length shall be counted as one outlet but, in locations where a number of electrical appliances are likely to be used simultaneously, each 300 millimetres or fraction thereof shall be counted as one outlet.

12-3002 Outlet Boxes

(1) An approved box or an equivalent device shall be installed at every point of outlet, switch or junction of conduit, raceways, armoured cable, or non-metallic sheathed cable, and at every point of outlet and switch of concealed knob-and-tube work.

(2) Non-metallic outlet boxes shall not be used in wiring methods using metallic raceways, armoured or metal sheathed cable, except where the boxes are provided with bonding connections between all conductor entry openings.

(3) The box shall be provided with a cover or a fixture canopy.

(4) At least 150 millimetres of free conductor shall be left at each outlet for making of joints or the connection of fixtures, unless the conductors are intended to loop through lampholders, receptacles, or similar devices without joints.

(5) Notwithstanding the requirements of Subrule (1), an outlet box may be omitted where equipment has its own integral connection box or has been approved for use as a connection box.

12-3006 Terminal Fittings

(1) Where conductors are run from the ends of conduit, armoured cable, surface raceways, or non-metallic sheathed cable to appliances or open wiring, an outlet fitting or terminal fitting may be used instead of the box required by Rule 12-3002, and the conductors shall be run without splice, tap, or joint within the fitting.

(2) The fitting shall have a separately bushed hole for each conductor.

(3) The fittings shall not be used at outlets for fixtures.

12-3008 Terminal Fittings Behind Switchboards. Where conductors issue from conduit behind a switchboard or more than 8 conductors issue from a conduit at control apparatus or a similar location an insulating bushing may be used instead of the box required by Rule 12-3002.

12-3010 Boxes in Concrete Construction

(1) Where used in concrete slab construction, ceiling outlet boxes shall have knockouts spaced above the free or lower edge of the boxes a distance of at least twice the diameter of the steel reinforcing bars so that conduit entering the knockouts shall clear the bars without offsetting.

(2) Sectional boxes shall not be used embedded in concrete or masonry construction.

(3) Boxes made wholly or in part of aluminum shall not be embedded in concrete containing reinforcing steel unless:

- (a) The concrete is known to contain no chloride additives; or
- (b) The box has been treated with an approved bituminous base paint or other approved means to prevent galvanic corrosion of the aluminum.

12-3012 Outlet Box Supports

(1) Except as permitted by Subrule (6), boxes and fittings shall be firmly secured to studs, joists or similar fixed structural units other than wooden, metal or composition lath, in accordance with this rule.

(2) Where ganged sectional boxes are used, they shall be secured to metal supports or to wooden boards at least 19 millimetres thick which are rigidly secured to the structural units.

(3) Where boxes having any dimensions greater than four inches are used, they shall be secured on at least two sides or be secured to metal supports or to wooden boards at least 19 millimetres thick which are rigidly secured to the structural units.

(4) Where boxes are mounted on metal studs additional support shall be provided to prevent the movement of the boxes after drywall is installed.

(5) Mounting nails or screws shall not pass through the interior of an outlet box unless:

- (a) The nails or screws are located so as not to be more than 6.4 millimetres from the back or ends of the box; and
- (b) The nails or screws are located so they will not interfere with the conductors or connectors.

(6) This rule shall not apply to boxes and fittings installed after the studs, joists or structural units have been concealed.

12-3014 Boxes, Cabinets, and Fitting Supports

(1) Boxes, cabinets, and fittings shall be fastened securely in place.

(2) Boxes and fittings having a volume of less than 100 cubic inches may be attached to a firmly secured exposed raceway by threading or other acceptable means of connection.

12-3016 Accessibility of Junction Boxes

(1) Pull-in, junction, and outlet boxes, cabinets and gutters, and joints in wires and cables shall be accessible.

(2) A vertical space of 900 millimetres or more shall be required to provide ready access.

12-3018 Flush Boxes, Cabinets, and Fittings

(1) The front edges of boxes, cabinets and fittings installed in walls or ceiling shall not be set in more than 6 millimetres from the finished surface, and where the walls or ceilings are of wood or other combustible material, shall be flush with the finished surface or shall project therefrom.

(2) Gaps or open spaces in plaster surfaces of walls or ceilings shall be filled in around the front edges of boxes, cabinets, and fittings.

12-3020 Outlet Boxes Attached to Existing Plaster Work. Where outlet boxes installed as additions to existing work are mounted directly upon existing plaster surfaces they shall be fastened securely in place.

12-3022 Outlet Boxes, etc., in Damp Places. Where boxes, cabinets, and fittings are installed in damp places they shall be so placed or constructed as to prevent moisture from entering and accumulating therein.

12-3026 Entrance of Conductors into Boxes, Cabinets, and Fittings

(1) Where conductors pass through the walls of boxes, cabinets, or fittings, provision shall be made to:

- (a) Protect the insulation on the conductors from injury;
- (b) Protect terminal connections from external strain;
- (c) Provide electrical continuity between a metal box, cabinet, or fitting and conduit, armour, or metal sheathing of conductors, whether or not the armour or metal sheathing is to be used as a grounding conductor;
- (d) Prevent injury to a non-metallic sheath applied over armour or metal sheathing for protection against moisture or corrosion; and
- (e) Close the openings through which the conductors pass in such a manner that any remaining opening will not permit entrance of a test rod 17/64 inch in diameter.

(2) Where conductors run as open wiring enter a box, cabinet or fitting they shall pass through insulating bushings or be installed in raceways or acceptable insulating tubing.

(3) Where non-metallic sheathed cable enters a box, cabinet, or fitting, a box connector, either as a separate device approved for use with such cable or as part of the box, cabinet, or fitting, shall be used to secure the cable in place adequately and without injury to the conductors.

(4) Where rigid or flexible metal conduit, electrical metallic tubing, or armoured cable enter boxes, cabinets, or fittings, they shall be secured in place in accordance with the requirements of Section 10.

(5) Where metal sheathed conductors enter boxes, cabinets, or fittings, the box connector shall be installed in a manner which will meet the requirements of Section 10 without injury to the conductors and shall be of a type approved specifically for the cable.

(6) Where liquid-tight flexible metal conduit or where flexible metal conduit, armoured cable, or metal-sheathed cable of a type having a non-metallic sheath over the armour or metal sheath enters a box, cabinet, or fitting, the box connector shall be of a type specifically approved for the purpose and shall ensure electrical continuity without injury to the non-metallic sheath unless the point of connection is in a dry location free from corrosive atmosphere, where the non-metallic sheath may be stripped back a sufficient distance.

(7) Where single conductor cables enter metal boxes through separate openings, precaution shall be taken to prevent overheating of the metal by induction if the current carried per conductor exceeds 200 amperes.

(8) Precautions to be taken to prevent overheating of the metal by induction shall include the use of non-ferrous or non-metallic box connectors, lock nuts and bushings and if non-ferrous metal plates or insulating plates are field installed, they shall be at least ¼ inch thick or such lesser thickness as is lawful under Rule 2-030.

12-3028 Unused Openings in Boxes, Cabinets and Fittings. Unused openings in boxes, cabinets, and fittings shall be effectively closed by plugs or plates affording protection substantially equivalent to that of the wall of the box, cabinet, or fitting.

12-3030 Extensions From Existing Outlets

(1) Where a surface extension is made from an existing outlet of concealed wiring, a box or an extension-ring shall be mounted over the original box and electrically and mechanically secured to it.

(2) The extension shall then be connected to the box or extension-ring in the manner prescribed by this Section for the method of wiring employed in making the extension.

12-3032 Multi-Outlet Assemblies

(1) Multi-outlet assemblies shall only be used in

normally dry locations as extensions to wiring systems.

(2) Multi-outlet assemblies shall not be used in any bathroom, kitchen, or any place where the assembly would be subject to mechanical injury.

(3) Multi-outlet assemblies may be carried through but not run within dry partitions provided that:

(a) No outlet falls within the partition;

(b) The removal of any cap or cover necessary for proper installation is not prevented; and

(c) The assembly is of metallic construction or, if of non-metallic construction, is surrounded by a metal duct or the equivalent.

(4) Multi-outlet assemblies shall not be concealed within the building finish but:

(a) The back and sides of metal assemblies may be set in plaster applied after the assembly is in place; or

(b) The back and sides of non-metallic assemblies may be set in a preformed recess in the building finish; and

(c) Either may be recessed in a baseboard or other wood trim member.

12-3034 Conductors in Boxes, Cabinets or Fittings

(1) Conductors which are connected to different power or distribution transformers or other different sources of voltage shall not be installed in the same box, cabinet or fitting unless:

(a) A barrier of sheet steel not less than 0.0528 inch (No. 16 MSG) thick or a flame-retardant non-metallic insulating material not less than 1/16 inch in thickness is used to divide the space into separate compartments for the conductors of each system;

(b) The conductors are used for the supply and/or control of remote devices and are insulated for at least the same voltage as that of the circuit having the highest voltage and none of the conductors of the circuits of lower voltages is directly connected to a lighting branch circuit; or

(c) The conductors are used for the supply of a double-throw switch in an emergency lighting system.

(2) Where a barrier is used, it shall be fastened rigidly to the box, cabinet or fitting, or an approved device assuring positive separation of the conductors shall be used.

12-3036 Wiring Space in Enclosures

(1) Enclosures for overcurrent devices, controllers, and externally operated switches shall not be used as junction boxes, troughs, or raceways for conductors feeding through to other apparatus.

(2) Notwithstanding Subrule (1) of this Rule, where such an enclosure is approved with connectors or the equivalent, each providing an independent clamping means for each conductor and each clamping means being independently accessible for tightening or inspection, a single feeder supplying another enclosure may be tapped from it.

(3) Conductors entering enclosures shall enter such enclosures as near as practicable to their terminal fittings.

12-3038 Maximum Number of Conductors in a Box

(1) Boxes shall be of sufficient size to provide usable space for all insulated conductors contained in the box, subject to the following:

- (a) A conductor running through a box with no connection therein shall be considered as one conductor;
- (b) Each conductor entering or leaving a box and connected to a terminal or connector within the box shall be considered as one conductor;
- (c) A conductor of which no part leaves the box shall not be counted; and
- (d) No. 18 and No. 16 AWG fixture wires supplying a lighting fixture mounted on the box containing the fixture wires shall not be counted.

(2) Except as specified in Subrule (3) and subject to the details given in Subrule (1), boxes of the nominal dimensions given in Table 23 shall not contain more insulated conductors of a given size than permitted by the Table, and the number of conductors shall be reduced for each of the following conditions as applicable:

- (a) One conductor if the box contains one or more fixture studs, hickies;
- (b) One conductor for every pair of wire connectors with insulating caps (no deduction for one wire connector, deduct one conductor for 2 or 3 wire connectors, two conductors for 4 or 5 wire connectors, etc.);
- (c) Two conductors if the box contains one or more flush devices mounted on a single strap.

(3) Where a box contains a device having a dimension greater than 1 inch between the mounting strap and back of the device, the total usable space shall be reduced by the space occupied by the device, calculated as 5 cubic inches multiplied by the depth of the device in inches (for example, a device having a depth of 1½ inches would occupy a space of 7½ cubic inches, that is 5 times 1½).

(4) Subject to the details given in Subrules (1) and (3), boxes having nominal dimensions other than those shown in Table 23 shall have the amount of usable

space per insulated conductor as specified in Table 22, but the number of conductors so calculated shall be reduced by one for each of the conditions of Subrule (2) as applicable.

(5) The total usable space in a box considered under Table 22, shall be considered to be the internal volume of the box and shall disregard any space occupied by locknuts, bushings, cable connectors, or clamps.

(6) Where sectional boxes are ganged or where plaster rings, extension rings or raised covers are used in conjunction with boxes, ganged or otherwise, and are marked with their volume measurement, the space in the box shall be the total volume of the assembled sections.

12-3040 Pull Box or Junction Box Sizes

(1) For the purposes of sub-rule (2) the equivalent cable to trade size of raceway shall be the minimum trade size raceway that would be required for the number and size of conductors in the cable.

(2) Where a pull or junction box is used with raceways containing conductors of No. 4 AWG or larger or with cables containing conductors No. 4 AWG or larger the box shall:

- (a) For a raceway or cable entering the wall of a box opposite to the removable cover, have a distance from the wall to the cover not less than the trade diameter of the largest raceway or equivalent cable plus 6 times the diameter of the largest conductor; and
- (b) For straight pulls or runs of cables, have a length of at least 8 times the trade diameter of the largest raceway or equivalent cable; and
- (c) For angle and U pulls or runs of cables,
 - (i) Have a distance between each raceway or cable entry inside the box in the opposite wall of the box of at least 6 times the trade diameter of the largest raceway or equivalent cable, plus some of the trade diameters of all other raceways or equivalent cables on the same wall that the box; and
 - (ii) Have a distance between the nearest edges of each raceway or equivalent cable entry enclosing the same conductor of at least:
 - (A) Six times the trade diameter of the raceway or equivalent cable; or
 - (B) Six times the trade diameter of the larger raceway or equivalent cable if they are of different sizes.

SECTION 14—PROTECTION AND CONTROL**Scope**

14-000 Scope. This Section covers the protection and control of electrical circuits and apparatus installed in accordance with the requirements of this Section and other Sections of this Code.

General Requirements

14-010 Protective and Control Devices Required. Electrical apparatus and ungrounded conductors shall, except as otherwise provided for in this Section or in other Sections dealing with specific equipment, be provided with:

- (a) Approved devices for the purpose of automatically opening the electrical circuit thereto:
 - (i) If the current therein reaches a value which will produce a dangerous temperature in the apparatus or conductor; and
 - (ii) In the event of a ground fault, in accordance with Rule 14-102; and
- (b) Manually operable control devices which will safely disconnect all ungrounded conductors of the circuit at the point of supply simultaneously, except for multi-wire branch circuits which in other than single family dwellings have each load connected to the neutral and one ungrounded conductor;
- (c) Approved devices which, when necessary will open the electrical circuit thereto in the event of failure of voltage in such circuit.

14-012 Types and Ratings of Protective and Control Devices

(1) Circuit breakers, fuses, and switches shall be of acceptable types and ratings.

(2) Overcurrent protective devices shall ensure safe operation and shall have interrupting capacity sufficient for the voltage employed and for the anticipated fault current which must be interrupted.

14-014 Connection of Devices. Devices required by this Section shall not be connected in any grounded conductors except where:

- (a) The devices simultaneously or previously disconnect all ungrounded conductors;
- (b) An overcurrent device is in a 2-wire circuit having one wire grounded and there is a possibility that the grounded conductor may assume a voltage difference between itself and ground, due to unreliable grounding conditions, of sufficient magnitude to create a dangerous condition; or
- (c) Overcurrent devices are located in that part of a circuit that is connected by a 2-pole polarized or unpolarized attachment plug provided that

the circuit is rated 15 amperes, 125 volts or less.

Protective Devices**General**

14-100 Overcurrent Devices Required. Each ungrounded conductor shall be protected by an overcurrent device at the point where it receives its supply of current and at each point where the size of conductor is decreased, except that such protection may be omitted:

- (a) Where the overcurrent device in a larger conductor properly protects the smaller conductor;
- (b) Where the smaller conductor:
 - (i) Has an ampacity not less than the combined computed loads of the circuits supplied by the smaller conductor and not less than the ampere rating of the switchboard, panelboard, or control device supplied by the smaller conductor;
 - (ii) Is not over 3 metres long;
 - (iii) Does not extend beyond the switchboard, panelboard, or control device which it supplies; and
 - (iv) Is enclosed in non-ventilated raceways, armoured cable or metal-sheathed cable when not a part of the wiring in the switchboard, panelboard or other control device;
- (c) Where the smaller conductor:
 - (i) Has an ampacity not less than $\frac{1}{3}$ that of the larger conductor from which it is supplied; and
 - (ii) Is suitably protected from mechanical damage, is not more than 7.5 metres long, and terminates in a single overcurrent device rated or set at a value not exceeding the ampacity of the conductor, but beyond the single overcurrent device the conductor may supply any number of overcurrent devices;
- (d) Where the smaller conductor is in a control circuit: and
 - (i) The rating or setting of the branch circuit overcurrent device is not more than 500 per cent of the ampacity of the control circuit conductor; or
 - (ii) The opening of the control circuit would create a hazard.
- (e) Where the smaller conductor supplies a transformer:
 - (i) The conductor supplying the primary of the transformer has an ampacity not less than $\frac{1}{3}$ that of the larger conductor;

- (ii) The conductor supplied by the secondary of the transformer has an ampacity not less than the ampacity of the primary conductor multiplied by the ratio of the primary to the secondary voltage;
 - (iii) The total length of one primary plus one secondary conductor (the longest, if more than one winding), excluding any portion of the primary conductor that is protected at its own ampacity, does not exceed 7.5 metres;
 - (iv) The primary and secondary conductors are protected from mechanical damage; and
 - (v) The secondary conductor terminates in a single overcurrent device rated or set at a value not exceeding its ampacity.
- (f) Where the smaller conductor:
- (i) Is supplied by a circuit at not more than 750 volts;
 - (ii) Is supplied from an overhead or underground circuit and is run overhead or underground except where it enters a building;
 - (iii) Is installed in accordance with the requirements of Section 6; and
 - (iv) Terminates in service equipment in accordance with Section 6.

14-102 Ground Fault Protection

(1) Except as permitted by Subrule (8), ground fault protection shall be provided to de-energize all normally ungrounded conductors of a faulted circuit that are downstream from the point or points marked with an asterisk in Table 49 in the event of a ground fault in those conductors as follows:

- (a) In solidly grounded circuits rated more than 150 volts-to-ground, less than 750 volts phase-to-phase and 1000 amperes or more; and
 - (b) In solidly grounded circuits rated 150 volts or less to ground and 2000 amperes or more.
- (2) The maximum setting of the ground fault protection shall be 1200 amperes and the maximum time delay shall be one second for ground fault currents equal to or greater than 3000 amperes.
- (3) The ampere rating of the circuits referred to in Subrule (1) shall be considered to be:

- (a) The rating of the largest fuse that can be installed in a fusible disconnecting device;
- (b) The highest trip setting for which the actual overcurrent device installed in a circuit breaker is rated or can be adjusted; or

- (c) The ampacity of the main conductor feeding the devices located at points marked with an asterisk in Item 2 of Table 49, in the case where no main disconnecting device is provided.

(4) This protection shall be provided by:

- (a) An overcurrent device which incorporates ground fault protection;
- (b) A ground fault tripping system comprising a sensor or sensors, relay and auxiliary tripping mechanism; or
- (c) Other approved means.

(5) The sensor or sensors referred to in Subrule (4) shall be:

- (a) Sensors which vectorially totalize the currents in all conductors of the circuit, including the grounded circuit conductor, where one is provided, but excluding any current flowing in the ground fault return current path;
- (b) Sensors which sense ground fault current flowing from the fault to the supply end of the system through the ground return path; or
- (c) A combination of these two types of sensor.

(6) Sensors referred to in Subrule (5)(a) may be installed at any point between the supply transformer and the downstream side of the disconnecting means marked with an asterisk in Table 49 but, if located downstream from this disconnecting means, the sensors shall be placed as close as practicable to its load terminals.

(7) Sensors referred to in Subrule (5)(b) shall be located on each connection between neutral and ground, except that where the neutral is grounded both at the supply transformer and at the switching centre, the sensor at the transformer is not required provided the maximum pickup setting of the ground fault relay does not exceed 1000 amperes.

(8) In ground fault schemes where two or more protective devices in series are used for ground fault co-ordination, the upstream protective device settings may exceed those specified in Subrule (2) where necessary to obtain the desired co-ordination, provided that the final downstream ground fault protective device in each circuit required to be protected conforms to the requirements of Subrule (2).

14-104 Rating of Overcurrent Devices, General. The rating or setting of overcurrent devices shall not exceed the allowable ampacity of the conductors which they protect except:

- (a) Where a fuse or circuit breaker having a rating or setting of the same value as the ampacity of the conductor is not available, in which case the ratings or settings given in Table 13 may be used within the maximum value of 600 amperes;

(b) In the case of equipment wire, flexible cord in sizes Nos. 16, 18, and 20 AWG copper, and tinsel cord, which will be considered as protected by 15 ampere overcurrent devices; or

(c) As provided for by other rules of this Code.

14-106 Location and Grouping. Overcurrent devices shall be located in readily accessible places, except as provided for elsewhere in this Code, and shall be grouped where practicable.

14-108 Enclosure of Overcurrent Devices

(1) Overcurrent devices shall be enclosed in cutout boxes or cabinets, unless they form a part of an approved assembly which affords equivalent protection, or unless mounted on switchboards, panelboards, or controllers located in rooms or enclosures free from easily ignitable material and dampness, and accessible only to authorized persons.

(2) Operating handles of circuit breakers shall be made accessible without opening any door or cover giving access to live parts.

14-112 Overcurrent Devices in Parallel

(1) Overcurrent devices shall not be connected in parallel in circuits of 750 volts or less.

(2) Notwithstanding Subrule (1) semiconductor fuses having interrupting ratings of 100 000 amperes and more, 750 volts and less, and circuit breakers rated 750 volts and less are permitted to be connected in parallel provided they are factory assembled in parallel as a single unit.

Fuses

14-200 Time-Delay and Low-Melting Point Fuses

(1) Plug and cartridge fuses of the low-melting point types, including time-delay fuses which also have low-melting points shall be marked so as to be readily distinguishable.

(2) The marking referred to in Subrule (1) shall be the letter "P" for low-melting point types which do not have time-delay characteristics, and the letter "D" for time-delay fuses.

14-202 Use of Plug Fuses. Plug fuses and fuseholders shall not be used in circuits exceeding 125 volts between conductors except in circuits supplied from a system having a grounded neutral and no conductor operating at more than 150 volts-to-ground.

14-204 Non-Interchangeable Fuses

(1) Where plug fuses are used in branch circuits they shall be of such a type and so installed that they are non-interchangeable with a fuse of larger rating.

(2) Where any alterations or additions are made to an existing fusible panelboard, all the plug fuses in the panelboard shall, where practical, comply with the requirements of Subrule (1).

14-206 Fuseholders for Plug Fuses. Fuseholders for plug fuses shall be of the so-called "covered" type where readily accessible to unauthorized persons.

14-208 Rating of Fuses

(1) Plug fuses shall be rated at not more than 30 amperes.

(2) Standard cartridge fuses shall not be used in capacities larger than 600 amperes or in circuits at more than 600 volts.

(3) HRC Form I, HRC Form II and Class L high rupturing capacity fuses used in circuits rated at 750 volts or less are not limited as to current rating.

(4) Fuses for use in circuits of more than 750 volts are not limited in current or voltage ratings.

14-210 Fuses and Fuseholders. Only approved fuses and fuseholders of proper rating shall be used, and no bridging or short circuiting of either component is permitted.

14-212 Use of HRC Form I and Form II High Rupturing Capacity Fuses. HRC fuses, which have a rupturing capacity in excess of that required for standard fuses, may be used as follows:

(a) HRC Form I fuses, in lieu of standard fuses;

(b) HRC Form II fuses, for overcurrent protection only where circuit overload protection is provided by standard fuses, circuit breakers, or overload devices;

(c) HRC Form II fuses, in lieu of standard fuses in those applications where this Code permits the installation of fuses greater than the ampere rating of the load, provided that the rating of the HRC Form II fuses does not exceed 85 per cent of the maximum rating permitted for standard fuses.

Circuit Breakers

14-300 Circuit Breakers, General

(1) Circuit breakers shall be of the trip-free type.

(2) Indication shall be provided at the circuit breaker and at the point of operation to show whether the circuit breaker is open or closed.

14-302 Construction of Circuit Breakers. Where circuit breakers are provided for the protection of apparatus or ungrounded conductors, or both, they shall open the circuit in all ungrounded conductors by the manual operation of a single handle and by the action of overcurrent, except:

(a) Where single-pole circuit breakers are permitted by Rule 14-010(b); or

(b) In branch circuits derived from a 3-wire grounded neutral system two single-pole manually operable circuit breakers may be used in lieu of a 2-pole breaker, provided that:

- (i) Their handles are so interlocked that all ungrounded conductors will be opened by the manual operation of either handle; and
- (ii) Each breaker has voltage ratings not less than that of the 3-wire grounded neutral system.

14-304 Non-Tamperable Circuit Breakers. Branch-circuit breakers unless accessible only to authorized persons, shall be of such design that any alteration by the user of either tripping current or time will be difficult.

14-306 Tripping Elements for Circuit Breakers. Circuit breakers shall be equipped with tripping elements as specified in Table 25.

14-308 Battery Control Power for Circuit Breakers

(1) When power for operating a circuit breaker is derived from a battery, the battery shall not supply any load other than the circuit breaker and its associated control circuits and the battery voltage shall be continuously monitored.

(2) If the battery voltage should drop to a value insufficient to operate the circuit breaker overcurrent element:

- (a) The circuit breaker must automatically trip; or
- (b) An alarm must operate continuously until the battery voltage is restored.

(3) A suitable warning notice shall be placed on or adjacent to the circuit breaker to the effect that battery control power must be available before the circuit breaker is closed.

Control Devices

General

14-400 Rating of Control Devices. Control devices shall have ratings suitable for the connected load of the circuits which they control and, with the exception of isolating switches, shall be capable of safely establishing and interrupting such loads.

14-402 Disconnecting Means Required for Fused Circuits. Circuits protected by fuses shall be equipped with disconnecting means integral with, or adjacent to, the fuseholders whereby all live parts for mounting fuses can be readily and safely made dead, except that such disconnecting means may be omitted in the case of:

- (a) Instrument and control circuits on switchboards where the voltage does not exceed 250 volts; and
- (b) Primary circuits of voltage transformers having a primary voltage of 750 volts or less, on switchboards; and

- (c) A circuit having only one ungrounded conductor where a plug fuse is used, as a plug fuse can be safely handled while alive in such a circuit.

14-404 Control Devices Ahead of Overcurrent Devices. Control devices used in combination with overcurrent devices or overload devices for the control of circuits or apparatus shall be connected so that the overcurrent or overload devices will be dead when the control device is in the open position, except where this is impracticable.

14-406 Location of Control Devices

(1) Control devices, with the exception of isolating switches, shall be readily accessible.

(2) Remotely controlled devices shall be considered to be readily accessible if the means of controlling them are readily accessible.

14-408 Indication of Control Device Positions. Manually operable control devices shall indicate the "on" and "off" positions, unless the application of the devices is such as to make this requirement unnecessary.

14-410 Enclosure of Control Devices. Control devices, unless they are located or guarded so as to render them inaccessible to unauthorized persons and to prevent fire hazards, shall have all current-carrying parts in enclosures of metal or other fire-resisting material.

14-412 Grouping of Control Devices. Control devices controlling feeders and branch circuits shall be grouped where practicable.

14-414 Connection to Different Circuits

(1) Where electrical equipment is supplied by more than one circuit, in order to prevent accidental contact with bare live parts:

- (a) A single disconnecting means, which will effectively open all ungrounded conductors supplying the equipment, shall be provided integral with, or adjacent to, the equipment; or

- (b) (i) each circuit shall be provided with an isolating means integral with or adjacent to the equipment;

- (ii) The isolating means in Paragraph (i) shall consist of barriers, individual disconnecting means integral with or adjacent to the equipment and grouped where practicable, or multi-pole relays.

(2) Notwithstanding Subrule (1), disconnecting means integral with or adjacent to equipment need not be provided for control circuits originating beyond the equipment and not exceeding 150 volts-to-ground provided that all associated bare live parts are protected against inadvertent contact by means of barriers.

(3) Where multiple disconnecting means as in Subrule (1)(b) are provided, suitable warning signs shall be

placed on or adjacent to each disconnecting means to the effect that all of the disconnecting means must be opened to ensure complete de-energization of the equipment.

(4) Where barriers are used as required in Subrule (2), a suitable warning sign shall be placed on or adjacent to the equipment, or on the barriers, indicating that there is more than one source of supply to the equipment.

(5) The barriers referred to in Subrules 14-414 (b) (ii), 14-414 (3) and 14-414 (4) shall consist of:

- (a) A minimum clearance of six inches between parts connected to different circuits;
- (b) Dead front construction;
- (c) Recessing; or
- (d) Other acceptable means.

(6) The effectiveness of barriers shall be judged as satisfactory when they prevent a probe ($\frac{3}{4}$ inches in diameter, 3 inches long, and having a spherical end) from contacting adjacent live parts from any angle.

14-416 Disconnecting Means

(1) A single disconnecting means shall be provided either integral with or adjacent to the distribution equipment:

- (a) within each unit of a multi-unit building, other than dwelling unit;
- (b) within each area common to more than one building, such as an underground parking area; or
- (c) within each building when fed from another building.

Switches

14-500 Operation of Switches. Knife switches and other control devices, unless located or guarded so as to render them inaccessible to unauthorized persons, shall be constructed so that they may be switched to the "off" position without exposing live parts.

14-502 Mounting of Knife Switches

(1) Single-throw knife switches shall be mounted with their bases in a vertical plane.

(2) Single-throw knife switches shall be mounted so that gravity will not tend to close them.

(3) Double-throw knife switches may be mounted so that the throw will be either vertical or horizontal but, if the throw is vertical, a positive locking device or stop shall be provided so as to ensure the blades remaining in the open position when so set, unless it is not intended that the switch be left in the open position.

14-504 Connection of Switches. Manual single-throw switches, circuit breakers, or magnetic switches, shall be so connected that the blades or moving contacts will be dead when the device is in the open position, except that the following need not comply:

- (a) Branch-circuit breakers which have all live parts other than terminals sealed, and which are constructed so that the line and load connections may be interchanged;
- (b) Switchgear which is provided for sectionalizing purposes and has a suitable caution notice attached to the assembly;
- (c) Switches which are immersed in a liquid and have a suitable caution notice attached to the outside of the enclosure;
- (d) Switches which are designed so that all live parts are inaccessible when the device is in the open position;
- (e) Magnetic switches, when preceded by a circuit breaker or manual switch which is located in the same enclosure or immediately adjacent and is marked to indicate that it controls the circuit to the magnetic switch, unless this is obvious.

14-506 Maximum Rating of Switches

(1) Knife switches rated at more than 600 amperes at 750 volts or less shall be used only as isolating switches.

(2) Notwithstanding Subrule (1), switches of special design and approved for such purpose may be used to interrupt currents greater than 600 amperes at 750 volts or less.

14-508 Rating of General Use AC/DC Switches. AC/DC switches shall be rated as follows:

- (a) For non-inductive loads other than tungsten-filament lamps, switches shall have an ampere rating not less than the ampere rating of the load;
- (b) For tungsten-filament lamp loads, and for combined tungsten filament and non-inductive loads, switches shall be "T" rated, except where:
 - (i) The switches are used in branch-circuit wiring systems in dwelling units, in private hospital or hotel rooms or in similar locations but not in public rooms or places of assembly;
 - (ii) The switch controls permanently connected fixtures or lighting outlets in one room only, or in one continuous hallway where the lighting fixtures may be located at different levels or in attics or basements not used for assembly purposes; and
 - (iii) The switch is rated at not less than 10 amperes, 125 volts; 5 amperes, 250 volts; or for the 4-way types, 5 amperes, 125 volts; 2 amperes, 250 volts;
- (c) Canopy switches controlling a tungsten-filament lamp load shall be "T" rated or shall have an

ampere rating at least three times the ampere rating of the load;

- (d) For inductive loads, switches shall have an ampere rating of twice the ampere rating of the load except that a switch having an "F" rating at 10 amperes, 125 volts is permitted to be used without derating where the inductive load is ac and the power factor is between unity and 75 per cent.

14-510 Use and Rating of Manually-Operated General-Use Alternating-Current Switches

(1) Manually-operated, general-use switches intended for alternating-current systems and constructed so that they can be installed readily in wiring systems for making and breaking tungsten-filament lighting and power circuits shall be rated as follows:

- (a) For tungsten-filament lamp loads at 120 volts maximum, switches shall have an ampere rating not less than the current rating of the load;
- (b) For non-inductive loads and for inductive loads at not less than 75 per cent power factor lag, switches shall have an ampere rating not less than the current rating of the load.

(2) The current rating of the switches shall be not less than 15 amperes in conjunction with a voltage rating of 120 or 277 volts.

(3) Switches shall be adapted for mounting in flush-device boxes, surface-type boxes, special boxes, or have complete self enclosures.

14-512 Manually Operated General-Use 347 Volt AC Switches

(1) Manually operated general-use 347 volt ac switches shall be used only for the control of non-inductive loads other than tungsten-filament lamps, and for inductive loads where the power factor is not less than 75 per cent lagging.

(2) The current rating of the switches shall be not less than 15 amperes in conjunction with a voltage rating of 347 volts.

(3) The switches designed for mounting in boxes shall not be readily interchangeable with switches referred to in Rules 14-508 and 14-510.

14-514 Manually Operated Switches in Circuits Exceeding 300 Volts-to-Ground. Switches referred to in Rules 14-508 and 14-512, when controlling circuits exceeding 300 volts-to-ground shall not be ganged or grouped in the same enclosure unless the enclosure provides permanently installed barriers.

Protection and Control of Miscellaneous Apparatus

14-600 Protection of Receptacles. Receptacles shall not be connected to a branch circuit having overcurrent protection rated or set at more than the ampere

rating of the receptacle except as permitted by other Sections of this Code.

14-602 Additional Control Devices Not Necessary. Portable appliances need not be equipped with additional control devices where the appliances are:

- (a) Rated at not more than 1500 watts; and
- (b) Provided with approved cord connectors, attachment plugs or other approved means by which they can be disconnected readily from the circuits.

14-604 Outlet Control From More Than One Point. Where switches are used to control an outlet or outlets from more than one point, the switches shall be wired and connected so that the grounded conductor runs directly to the outlet or outlets controlled by the switches.

14-606 Panelboard Overcurrent Protection

(1) Except for panelboards where more than 90 per cent of the overcurrent devices supply feeders or motor branch circuits, every panelboard shall be protected on the supply side by overcurrent devices having a rating not greater than that of the panelboard.

(2) The overcurrent protection required by Subrule (1) is permitted to be in the primary of a transformer supplying the panelboard provided the rating of the panelboard is not less than 125 percent of the rated secondary current of the transformer and the primary overcurrent device is rated or set at no more than 125 percent of the rated primary current of the transformer.

14-608 Remote-Control Circuits. Remote-control circuits of remotely controlled apparatus shall be arranged so that they may be conveniently disconnected from their source of supply at the controller, but as an alternative it may be arranged that the disconnecting of the apparatus from the supply circuit also disconnects the remote-control circuit from the supply circuit.

14-610 Protection of Circuits Supplying Cycling Loads. Where fuses protect circuits in which more than 50 per cent of the circuit rating is a cycling load, such as thermostatically-controlled electric space heaters, clothes dryers or water heaters, they shall be time-delay or low-melting point fuses of the type referred to in Rule 14-200 or HRC Form 1 fuses, except that in dwelling units HRC Form 1 fuses shall have the same low-melting point characteristics referred to in Rule 14-200.

14-612 Transfer Equipment for Standby Power Systems. Transfer equipment for standby power systems shall prevent the inadvertent inter connection of normal and standby sources of supply in any operation of the transfer equipment.

Solid State Devices

14-700 Restriction of Use. Solid state devices

shall not be used as isolating switches or as disconnecting means.

14-702 Disconnecting Means Required

(1) Supplementary disconnecting means shall be provided where failure of or leakage through a solid state device could result in transfer of energy between two or more power sources.

(2) The disconnecting means referred to in Sub-rule (1) shall:

- (a) Be connected into the circuit in such a way that when opened they will prevent transfer of energy between the different power sources; and
- (b) Be provided as an integral part of the solid state device; or
- (c) Be installed as close as practicable and in sight of the solid state device.

14-704 Warning Notices Required. Suitable warning notices shall be placed:

- (a) On the supplementary disconnecting means required by Rule 14-702 to the effect that:
 - (i) This disconnecting means shall be opened in the event of a failure of any of the power sources or in the event of servicing of any component in the circuits of the other power sources; and
 - (ii) Both line and load terminals may be energized when the disconnecting means is open; and
- (b) On all other upstream disconnecting means to the effect that an alternate power source, or sources, exist in the circuit and that the supplementary disconnecting means must also be opened to prevent the possibility of feedback from the alternate source or sources.

SECTION 16—CLASS 1 AND CLASS 2 CIRCUITS

General

16-000 Scope

- (1) This Section covers:
 - (a) Class 1 and Class 2 remote-control circuits;
 - (b) Class 1 and Class 2 signal circuits;
 - (c) Class 1 extra-low-voltage power circuits; and
 - (d) Class 2 low-energy power circuits.
- (2) This Section does not apply to:
 - (a) Communication circuits; and

- (b) Circuits forming an integral part of a device.

16-002 Classifications. Circuits covered by this Section are that portion of the wiring system between the load side of the overcurrent device or the power-limited supply and all connected equipment, and shall be classified as follows:

- (a) Class 1—Circuits which are supplied from sources having limitations in accordance with Rule 16-100;
- (b) Class 2—Circuits which are supplied from sources having limitations in accordance with Rule 16-200.

16-004 Class 1 Extra-Low-Voltage Power Circuits. Circuits which are neither remote-control circuits nor signal circuits, but which operate at not more than 30 volts where the current is not limited in accordance with Rule 16-200 and which are supplied from a transformer or other device restricted in its rated output to 1000 volt-amperes and approved for the purpose, shall be classed as extra-low-voltage power circuits and shall be considered to be Class 1 circuits.

16-006 Class 2 Low-Energy Power Circuits. Circuits which are neither remote-control circuits nor signal circuits but in which the current is limited in accordance with Rule 16-200, shall be classed as low-energy power circuits and shall be considered to be Class 2 circuits.

16-008 Hazardous Locations. Where the circuits or apparatus within the scope of this Section are installed in hazardous locations, they shall also comply with the applicable rules of Section 18.

16-010 Circuits to Safety Control Devices. Where the failure to operate of a remote control circuit to a safety control device will introduce a direct fire or life hazard, the remote control circuit shall be deemed to be a Class 1 circuit.

16-012 Circuits in Communication Cables

(1) Class 1 circuits shall not be run in the same cable with communication circuits.

(2) Class 2 remote-control and signal circuits or parts thereof which use conductors in a cable assembly with other conductors forming parts of communication circuits are, for the purpose of this Code, deemed to be communication circuits.

Class 1 Circuits

16-100 Limitation of Class 1 Circuits

(1) Class 1 extra-low-voltage power circuits shall be supplied from a source having a rated output of not more than 30 volts and 1000 volt-amperes.

(2) Class 1 remote-control and signal circuits shall be supplied by a source not exceeding 600 volts.

16-102 Methods of Installation for Class 1 Circuits. The requirement and conductors of Class 1 circuits shall be installed in accordance with the requirements of other appropriate Sections of this Code, except as provided in Rules 16-104 to 16-120.

16-104 Overcurrent Protection of Class 1 Circuit

(1) Conductors of Class 1 circuits shall be protected against overcurrent in accordance with Section 14 of this Code, except:

- (a) Where other rules of this Code specifically permit or require other overcurrent protection;
- (b) Where the conductors are of No. 18 or No. 16 AWG copper and extend beyond the equipment enclosure, they shall be protected by overcurrent devices rated at a maximum of 5 amperes and 10 amperes respectively.

(2) Where overcurrent protection is installed at the secondary terminals of the transformer and the transformer is suitably enclosed, no overcurrent protection is required on the primary side other than the normal overcurrent protection of the branch circuit supplying the transformer.

16-106 Location of Overcurrent Devices in Class 1 Circuits

(1) In Class 1 circuits, the overcurrent devices shall be located at the point where the conductor to be protected receives its supply.

(2) The overcurrent device may be an integral part of the power supply.

16-108 Class 1 Extra-Low-Voltage Power Circuit Sources Including Transformers. To comply with the 1000 volt-ampere limitation, Class 1 extra-low-voltage power circuit sources including transformers shall not exceed a maximum power output of 2500 volt-amperes, and the product of the maximum current and maximum voltage shall not exceed 10,000 volt-amperes with the overcurrent protection bypassed.

16-110 Conductor Material and Sizes

(1) Copper conductors smaller than No. 14 AWG may be used in Class 1 circuits if:

- (a) Installed in a raceway;
- (b) Installed in a cable approved for the purpose; or
- (c) Within a flexible cord in accordance with Rule 4-010.

(2) Subject to the conditions specified in Subrule (1), conductors shall be not smaller than:

- (a) No. 16 AWG for individual conductors pulled in raceways;

(b) No. 18 AWG for individual conductors laid in raceways; and

(c) No. 18 AWG for an integral assembly of two or more conductors.

16-112 Insulated Conductors for Class 1 Wiring

(1) Where conductors larger than No. 16 AWG copper are used in a Class 1 circuit, they shall be of any type shown in Table 19.

(2) Where conductors of No. 18 or No. 16 AWG copper are used in a Class 1 circuit, they shall be equipment wire of the type suitable for such use as indicated in Table 11.

16-114 Conductors of Different Circuits in the Same Enclosure, Cable, or Raceway

(1) Different Class 1 circuits are permitted to occupy the same enclosure, cable or raceway without regard to whether the individual circuits are alternating current or direct current, provided all conductors are insulated for the maximum voltage of any conductor in the enclosure, cable or raceway.

(2) Power supply conductors and Class 1 circuit conductors are not permitted in the same enclosure, cable or raceway except when connected to the same equipment, and all conductors are insulated for the maximum voltage of any conductor in the enclosure, cable or raceway.

16-116 Mechanical Protection of Remote-Control Circuits. Where mechanical damage to a remote-control circuit would result in a hazardous condition as outlined in Rule 16-010 all conductors of such remote-control circuits shall be installed in conduit, electrical metallic tubing, or be otherwise suitably protected from mechanical injury or other injurious condition such as moisture, excessive heat or corrosive action.

16-118 Class 1 Circuits Extending Aerially Beyond a Building. Class 1 circuits which extend aerially beyond a building shall comply with Rules 12-300 to 12-318.

Class 2 Circuits

16-200 Limitation of Class 2 Circuits

(1) Class 2 circuits, depending upon the voltage, shall have the current limited as follows:

(a) 0 to 20 volts. Circuits in which the open-circuit voltage does not exceed 20 volts shall have overcurrent protection rated at not more than 5 amperes, exceed that overcurrent protection is not required where the current is supplied from:

- (i) Primary batteries which under short circuit will not supply a current exceeding 7.5 amperes after 1 minute;

- (ii) A Class 2 circuit transformer; or
 - (iii) A device having characteristics which will limit the current under normal operating conditions or under fault conditions to a value not exceeding 5 amperes;
 - (iv) A device having a Class 2 output.
- (b) **Over 20 volts but not exceeding 30 volts.** Circuits in which the open-circuit voltage exceeds 20 volts but does not exceed 30 volts shall have an overcurrent protection ampere rating not exceeding $100/v$ amperes, where v is the open-circuit voltage, except that the overcurrent protection is not required where the current is supplied from:
- (i) Primary batteries which under short circuit will not supply a current exceeding 5 amperes after 1 minute;
 - (ii) A Class 2 circuit transformer; or
 - (iii) A device having characteristics which will limit the current under normal operating conditions or under fault conditions to an ampere value not exceeding $100/v$ amperes, where v is the open-circuit voltage.
 - (iv) A device having a Class 2 output.
- (c) **Over 30 volts but not exceeding 60 volts.** Circuits in which the open-circuit voltage exceeds 30 volts but does not exceed 60 volts shall have an overcurrent protection ampere rating not exceeding $100/v$ amperes, where v is the open-circuit voltage, except that the overcurrent protection is not required where the current is supplied from:
- (i) A Class 2 circuit transformer; or
 - (ii) A device having characteristics which will limit the current under normal operating conditions or under fault conditions to an ampere value not exceeding $100/v$ amperes, where v is the open-circuit voltage;
- (d) **Over 60 volts but not exceeding 150 volts.** Circuits in which the open-circuit voltage exceeds 60 volts but does not exceed 150 volts shall have an overcurrent protection ampere rating not exceeding $100/v$ amperes, where v is the open-circuit voltage, and in addition shall be equipped with current-limiting means other than overcurrent protection, which will limit the current, either under normal operating conditions or under fault conditions, to an ampere value not exceeding 100 volts, where volts is the open-circuit voltage.
- (2) Transformer devices supplying Class 2 circuits

shall be approved for the purpose and be restricted in their rated output to not exceeding 100 volt-amperes.

(3) A device having energy-limiting characteristics may consist of a series resistor of an acceptable rating, or other similar device.

(4) A Class 2 power supply shall not be connected in series or parallel with another Class 2 power source.

16-202 Methods of Installation on Supply Side of Overcurrent Protection or Transformers or Other Devices for Class 2 Circuits. In Class 2 circuits, the conductors and equipment on the supply side of overcurrent protection, transformers, or current-limiting devices shall be installed in accordance with the requirements of other appropriate Sections of this Code.

16-204 Marking. A Class 2 power supply unit shall have permanent markings which shall be readily visible after installation to indicate the class of supply and its electrical rating.

16-206 Overcurrent Protection and Mounting for Class 2 Circuits

(1) Where overcurrent protection is applied to Class 2 circuits in accordance with Rule 16-200 such protection and its mounting shall be approved for the purpose.

(2) **Overcurrent protection of different ratings shall not be of an interchangeable type.**

(3) **The overcurrent protection may be an integral part of a transformer or other power-supply device approved for the purpose.**

16-208. Location of Overcurrent Devices. Overcurrent devices shall be located at the point where the conductor to be protected receives its supply.

16-210 Conductors for Class 2 Circuit Wiring

(1) Conductors for use in Class 2 circuits shall be of the type for the application as indicated in Table 19.

(2) **Type ELC conductors are limited in use to:**

- (a) Class 2 circuits operating at 30 volts or less;
- (b) Dwelling units in buildings of combustible construction;
- (c) Dry locations; and
- (d) Where concealed or exposed, when not subject to mechanical injury.

(3) **Type ELC Conductors are not permitted for the wiring of heating control circuits or fire safety circuits such as fire alarm or smoke alarm devices.**

(4) **Conductors shall be of copper and shall be not smaller than:**

- (a) No. 16 AWG for individual conductors pulled into raceways;
 - (b) No. 19 AWG for individual conductors laid in raceways;
 - (c) No. 19 AWG for an integral assembly of two or more conductors;
 - (d) No. 22 AWG for an integral assembly of four or more conductors;
 - (e) No. 24 AWG for an integral assembly of six or more conductors; and
 - (f) No. 26 AWG for an integral assembly of ten or more conductors.
- (5) Notwithstanding Subrule (4)(d), Type ELC wire is permitted in an integral assembly of two or more conductors for No. 22 AWG copper wire where not pulled into raceways.

(6) The maximum allowable current shall be as listed in Table 57 for sizes No. 16 AWG and smaller but, in no case shall exceed the current limitations of Rule 16-200.

16-212 Separation of Class 2 Circuit Conductors from Other Circuits

(1) Conductors of Class 2 circuits shall be separated at least 50 millimetres from insulated conductors of electric lighting, power or Class 1 circuits operating at 300 volts or less and shall be separated at least 600 millimetres from any insulated conductors of electric lighting, power or Class 1 circuits operating at more than 300 volts unless for both conditions effective separation is afforded by use of:

- (a) Metal raceways for the Class 2 circuits or for the electric lighting, power and Class 1 circuits, subject to the metal raceways being bonded to ground;
- (b) Metal sheathed or armoured cable for the electric lighting, power and Class 1 circuit conductors, subject to the sheath or armour being bonded to ground;
- (c) Non-metallic sheathed cable for the electric lighting, power and Class 1 circuits operating at 300 volts or less; or
- (d) nonmetallic conduit, electrical nonmetallic tubing, insulated tubing or equivalent, in addition to the insulation on the Class 2 circuit conductors or the electric lighting, power and Class 1 circuit conductors.

(2) Where the electric lighting or power conductors are bare, all Class 2 circuit conductors in the same room or space shall be enclosed in a metal raceway, that is bonded to ground, and no opening, such as an outlet box, may be located within 2 metres of the bare

conductors if up to and including 15 kilovolts or within 3 metres of bare conductors above 15 kilovolts.

(3) Unless the conductors of the Class 2 circuits are separated from the conductors of electric lighting, power and Class 1 circuits by an acceptable barrier, the conductors in Class 2 circuits shall not be placed in any raceway, compartment, outlet box, junction box or similar fitting with the conductors of electric lighting, power or Class 1 circuits.

(4) Subrule (3) shall not apply where the conductors of a power circuit are in the raceway, compartment, outlet box, junction box, or similar fitting for the sole purpose of supplying power to the Class 2 circuits, and all conductors are insulated for the maximum voltage of any conductor in the enclosure, cable or raceway, except that no Class 2 conductor installed in a raceway, compartment, outlet box, junction box, or similar fitting with such conductors of a power circuit shall show a green-coloured insulation, unless such Class 2 conductor is completely contained within a sheathed or jacketed cable assembly throughout the length that is present in such raceway or enclosure.

16-214 Conductors of Different Class 2 Circuits in the Same Cable, Enclosure, or Raceway. Conductors of two or more Class 2 circuits are permitted within the same cable, enclosure or raceway provided all conductors in the cable, enclosure or raceway are insulated for the maximum voltage of any conductor.

16-216 Penetration of a Fire Separation. Conductors of a Class 2 circuit extending through a fire separation shall be so installed as to limit fire spread in accordance with Rule 2-126.

16-218 Conductors in Vertical Shafts and Hoistways. Class 2 conductors and cables installed in a vertical shaft or hoistway shall meet the requirements of Rules 2-126 and 2-128.

16-220 Class 2 Conductors in Ducts and Plenum Chambers and Equipment. Class 2 conductors and equipment shall not be placed in ducts or plenum chambers except as permitted by Rules 12-010 and 2-128.

16-222 Equipment Located on the Load Side of Overcurrent Protection, Transformers, or Current-Limiting Devices for Class 2 Circuits

(1) Equipment located on the load side of overcurrent protection, transformers, or current-limiting devices for Class 2 circuits shall:

- (a) For Class 2 circuits operating at 30 volts or less, alternating current or direct current, be acceptable for the particular application; and
- (b) For Class 2 circuits operating at more than 30 volts, alternating current or direct current be suitable for the voltage range and application, be approved for the purpose and be arranged so

that no live parts are accessible to unauthorized persons.

(2) Notwithstanding Subrule (1), lighting fixtures, and thermostats incorporating heat anticipators, located on the load side of overcurrent protection, Class 2 transformers, or current-limiting devices shall be approved when connected to Class 2 circuits operating at 30 volts or less.

16-224 Class 2 Circuits Extending Beyond a Building. Where Class 2 circuits extend beyond a building and are run in such manner as to be subject to accidental contact with lighting or power conductors operating at a potential exceeding 300 volts between conductors, the conductors of the Class 2 circuit shall also meet the requirements of Section 60.

16-228 Underground Installations

(1) Underground installations of Class 2 circuits shall be installed in accordance with Rule 12-012.

(2) Direct buried Class 2 circuits shall maintain a minimum horizontal separation of 300 millimetres from other underground systems except when installed in accordance with Subrule (3).

(3) Direct buried Class 2 circuits may be placed at random separation in a common trench with power circuits which are for the sole purpose of supplying power to the Class 2 circuits provided that the Class 2 circuit is in a metal sheathed cable with the sheath bonded to ground, the power circuit operates at 750 volts or less, and all conductors are insulated for the maximum voltage of any conductor in the trench.

SECTION 18—HAZARDOUS LOCATIONS

Scope and Introduction

18-000 Scope

(1) This Section applies to locations in which electrical equipment and wiring are subject to the conditions indicated by the following classifications.

(2) This Section is supplementary to, or amendatory of, the general requirements of this Code.

18-002 Classification. Hazardous locations shall be classified according to the nature of the hazard, as follows:

- (a) Class I locations are those in which flammable gases or vapours are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures;
- (b) Class II locations are those which are hazardous because of the presence of combustible or electrically conductive dusts; or
- (c) Class III locations are those which are hazardous because of the presence of easily ignitable fibres or flyings, but in which such fibres or flyings are not likely to be in suspension in air in quantities sufficient to produce ignitable mixtures.

18-004 Division of Class I Locations. Class I locations shall be further divided into two divisions as follows:

(a) Division 1, comprising Class I locations in which:

- (i) Hazardous concentrations of flammable gases or vapours exist continuously, intermittently, or periodically under normal operating conditions;
- (ii) Hazardous concentrations of flammable gases or vapours may exist frequently because of repair or maintenance operation or because of leakage; or
- (iii) Equipment is operated or processes carried on of such nature that breakdown or faulty operation thereof could result in the release of hazardous concentrations of flammable gases or vapours and simultaneous failure of electrical equipment;

(b) Division 2, comprising Class I locations in which:

- (i) Flammable volatile liquids, flammable gases or vapours are handled, processed, or used, but in which the liquids, gases, or vapours are normally confined within closed containers or closed systems from which they can escape only as a result of accidental rupture or breakdown of the containers or systems or the abnormal operation of the equipment by which the liquids or gases are handled, processed or used;
- (ii) Hazardous concentration of gases or vapours are normally prevented by positive mechanical ventilation, but which may become hazardous as the result of failure or abnormal operation of the ventilating equipment; or
- (iii) The location is adjacent to a Class I Division 1 location, from which a hazardous concentration of gases or vapours could be communicated, unless such communication is prevented by adequate positive-pressure ventilation from a source of clean air, and effective safeguards against ventilation failure are provided.

18-006 Division of Class II Locations. Class II locations shall be further divided into two divisions as follows:

(a) Division 1, comprising Class II locations in which:

- (i) Combustible dust is or may be in suspension in air continuously, intermittently, or periodically under normal operating conditions in quantities sufficient to produce explosive or ignitable mixtures;
- (ii) The normal or abnormal operation or the failure of equipment or apparatus might cause explosive or ignitable mixtures to be produced in, or in dangerous proximity to, electrical equipment or apparatus; or
- (iii) Dusts having the property of conducting electricity may be present;

(b) Division 2, comprising Class II locations in which combustible dusts are not normally in suspension in air or likely to be thrown into suspension by the normal or abnormal operation or the failure of equipment or apparatus in quantities sufficient to produce explosive or ignitable mixtures, but in which:

- (i) Deposits or accumulations of dust may be sufficient to interfere with the safe dissipation of heat from electrical equipment or apparatus; or
- (ii) Deposits or accumulations of dust on, in, or near electrical equipment may be ignited by arcs, sparks, or burning material from the electrical equipment.

18-008 Division of Class III Locations. Class III locations shall be further divided into two divisions as follows:

- (a) Division 1, comprising Class III locations in which readily ignitable fibres or materials producing combustible flyings are handled, manufactured, or used; and
- (b) Division 2, comprising Class III locations in which readily ignitable fibres other than those in process of manufacture are stored or handled.

18-010 Special Terminology. In this Section, the following definition applies:

“Cable gland” means a device or combination of devices intended to provide a means of entry of a cable or flexible cord into a hazardous location enclosure and which also provides strain relief and is permitted to provide sealing characteristics where required, either by an integral means or when combined with a separate sealing fitting.

General

18-050 Electrical Equipment

(1) Where electrical equipment is required by this Section to be approved for the class of location, it shall also be approved for the specific gas, vapour, or dust that will be present.

(2) Such approval may be indicated by one or more of the following atmospheric group designations which have been established for the purposes of testing and approval:

- (a) Group A, comprising atmospheres containing Acetylene;
- (b) Group B, comprising atmospheres containing butadiene, ethylene oxide, hydrogen (or gases or vapours equivalent in hazard to hydrogen, such as manufactured gas), or propylene oxide;
- (c) Group C, comprising atmospheres containing acetaldehyde, cyclopropane, diethyl ether, ethylene, or unsymmetrical dimethyl hydrazine (UDMH), or other gases or vapours of equivalent hazard;
- (d) Group D, comprising atmospheres containing acetone, acrylonitrile, alcohol, ammonia, ben-

zine, benzol, butane, ethylene dichloride, gasoline, hexane, isoprene, lacquer solvent vapours, naphtha, natural gas, propane, propylene, styrene, vinyl acetate, vinyl chloride, xylenes, or other gases or vapours of equivalent hazard;

- (e) Group E, comprising atmospheres containing metal dust, including aluminum, magnesium, and their commercial alloys, and other metals of similarly hazardous characteristics;
- (f) Group F, comprising atmospheres containing carbon black, coal, or coke dust; or
- (g) Group G, comprising atmospheres containing flour, starch, or grain dust, and other dusts of similarly hazardous characteristics.

(3) Notwithstanding Rule 18-050 (2) (b), where the atmosphere contains:

- (a) Butadiene, Group D equipment may be used if such equipment is isolated in accordance with Rule 18-106 (3) by sealing all conduit $\frac{1}{2}$ inch size or larger; or
- (b) Ethylene oxide or propylene oxide, Group C equipment may be used if such equipment is isolated in accordance with Rule 18-106 (3) by sealing all conduit $\frac{1}{2}$ inch size or larger.

18-052 Marking

(1) Electrical equipment approved for use in hazardous locations shall be so marked to indicate the class and for Classes I and II locations the group, or the specific gas, vapour, or dust, for which the equipment has been approved.

(2) Electrical equipment approved for use in Class I hazardous locations may be marked with:

- (a) The maximum external temperature; or
- (b) One of the following temperature codes to indicate the maximum external temperature:

Temperature Code	Maximum External Temperature
T1	450°C
T2	300°C
T2A	280°C
T2B	260°C
T2C	230°C
T2D	215°C
T3	200°C
T3A	180°C
T3B	165°C
T3C	160°C
T4	135°C
T4A	120°C
T5	100°C
T6	85°C

(3) If no maximum external temperature marking is shown on Class I equipment approved for the class and group, the equipment, if of the heat producing

type (which excludes junction boxes, conduit fittings, etc.), shall be considered as having the following maximum external temperature for the purpose of compliance with Rule 18-054.

Group A	—	280°C
Group B	—	280°C
Group C	—	160°C
Group D	—	215°C

(4) Equipment approved for Class 1, Division 2 only shall be so marked.

(5) Electrical equipment approved for operation at ambient temperatures exceeding 40°C shall, in addition to the marking specified in Rule 18-052(2), be marked with the maximum ambient temperature for which the equipment is approved, and the maximum external temperature of the equipment at that ambient temperature.

18-054 Temperature. In Class I hazardous locations equipment shall not be installed in an area where vapours or gases are present that have an ignition temperature less than the maximum external temperature of the equipment as referred to in Rule 18-052 (2) and (3).

18-056 Non-Essential Electrical Equipment

(1) No electrical equipment shall be used in a hazardous location, unless it is essential to the processes being carried on therein.

(2) Service equipment, panelboards, switchboards, and similar electrical equipment shall, where practicable, be located in rooms or sections of the building in which hazardous conditions do not exist.

18-058 Rooms, Sections, or Areas. Each room, section, or area, including motor- and generator-rooms and rooms for the enclosure of control equipment, shall be considered as a separate location for the purpose of determining the classification of the hazard.

18-060 Equipment Rooms

(1) Where walls, partitions, floors or ceilings are used to form hazard-free rooms or sections, they shall be:

- (a) Of substantial construction;
- (b) Built of or lined with noncombustible material; and
- (c) Such as to ensure that the rooms or sections will remain free from hazards.

(2) Where a non-hazardous location within a building communicates with a Class I, Division 2 location, a Class II location, or a Class III location, the locations shall be separated by close-fitting, self-closing, approved fire doors.

(3) For communication from a Class I, Division 1 location the provisions of Rule 18-004 (b) (iii) shall apply.

18-062 Metal-Covered Cable

(1) Where mineral-insulated cable is used in hazardous locations, the cable terminations shall be made by experienced workmen strictly in accordance with the cable manufacturer's instructions, which shall include an insulation resistance test before the cable is energized to assure that moisture has not entered the mineral insulation prior to the application of the pot seal, and that the conductors have not been short-circuited or grounded while preparing the seal.

(2) Where exposed overhead conductors supply mineral insulated cable in a hazardous location, surge arresters shall be installed to limit the surge voltage level to 5 kilovolts on the cable.

(3) Where single-conductor metal-covered cable is used in hazardous locations it shall be installed in such a manner as to prevent sparking between cable sheaths or between cable sheaths and metal bonded to ground, and:

- (a) Cables in the circuit shall be clipped or strapped together, in a manner which will ensure good electrical contact between metal coverings, at intervals of not more than 1.8 metres and the metal coverings shall be bonded to ground, or
- (b) Cables in the circuit shall have the metal coverings continuously covered with insulating material and the metal coverings shall be bonded to ground at one end only.

(4) Where mineral-insulated heating cable is used in hazardous locations it shall be specifically approved for the purpose and the hazardous location.

18-064 Pressurized Equipment or Equipment Rooms. Electrical equipment and associated wiring in class I locations may be located in enclosures or rooms constructed and arranged so that a positive air or inert gas pressure is maintained at all times that the equipment is energized and Rules 18-100 to 18-178 of this Section do not apply if the location and the construction and arrangement is lawful under Rule 2-030.

18-066 Intrinsically Safe Electrical Equipment and Wiring

(1) Electrical equipment and associated wiring approved as intrinsically safe may be installed in any hazardous location for which it is approved, and the provisions of Rules 18-100 to 18-380 of this Section need not apply.

(2) Electrical equipment and associated circuits approved as non-incendive shall be permitted in Class I, Division 2 locations and the provisions of Rules 18-150 to 18-154 need not apply.

(3) Raceways or cable for intrinsically safe and non-incendive wiring and equipment in Class I locations shall be properly sealed to prevent migration of gas or

vapour into enclosures or raceways required to be explosionproof, as well as to other locations.

(4) The conductors in an intrinsically safe and non-incendive circuit shall not be placed in any raceway, compartment, outlet, junction box, or similar fitting with the conductors of any other system unless the conductors of the two systems are separated by a suitable mechanical barrier.

18-068 Cable trays. Cable trays shall not be used to support cables in hazardous locations except where:

- (a) The type of cable is approved in rules of this Section for use in the particular hazardous location;
- (b) The type of cable is approved for use in cable trays in accordance with Rule 12-2204; and
- (c) There can be no hazardous accumulation of combustible process dust or fibre in or upon the cable, the cable tray, or the supports.

18-070 Combustible Gas Detection Instruments.

Where it is impractical to use another form of protection, electrical equipment suitable for non-hazardous locations shall be permitted to be installed in a Class I Division 2 hazardous location and electrical equipment suitable for Class I Division 2 hazardous locations is permitted to be installed in a Class I Division 1 hazardous location if the installation is lawful under Rule 2-030 and the location is continuously monitored by a combustible gas detection instrument that,

- (a) Will actuate ventilating equipment or other means designed to prevent the concentration of gas from reaching the lower explosive limit when the gas concentration reaches 20% of the lower explosive limit;
- (b) Will automatically de-energize the equipment being protected when the gas concentration reaches 40% of the lower explosive limit; and
- (c) Will automatically de-energize the equipment being protected upon failure of the gas detection instrument.

18-072 Explosive Fluid Seals. Electrical equipment containing an explosive fluid seal intended to prevent explosive fluids from reaching the electrical housing or conduit system shall not be used at pressures in excess of the marked maximum working pressure.

CLASS I LOCATION

Installation in Class I, Division 1 Locations

18-100 Transformers and Capacitors, Class I, Division 1

(1) Transformers and electrical capacitors which contain a liquid that will burn shall be installed in electrical equipment vaults in accordance with Rules 26-350 to 26-356, and:

- (a) There shall be no door or other connecting opening between the vault and the hazardous area;
 - (b) The vault shall be so ventilated as to ensure the continuous removal of hazardous gases or vapours;
 - (c) Vent-openings or vent-ducts shall lead to a safe location outside the building containing the vault;
 - (d) Vent-openings and vent-ducts shall be of sufficient area to relieve pressure caused by explosions within the vault; and
 - (e) Every portion of a vent-duct within the building shall be constructed of reinforced concrete.
- (2) Transformers and electrical capacitors which do not contain a liquid that will burn shall be:
- (a) Installed in electrical equipment vaults conforming to Subrule (1); or
 - (b) Of explosionproof type approved for Class I locations.

18-102 Meters, Instruments, and Relays, Class I, Division 1

- (1) Where practicable, meters, instruments, and relays, including kilowatt-hour meters, instrument transformers and resistors, rectifiers and thermionic tubes shall be located outside the hazardous location.
- (2) Where it is not practicable to install meters, instruments, and relays outside Class I, Division 1 locations, they shall be approved for Class I locations.

18-104 Wiring Methods, Class I, Division 1

- (1) The wiring method shall be threaded rigid metal conduit or cables approved for hazardous locations with associated cable glands approved for the particular hazardous location.
- (2) All boxes, fittings, and joints shall be threaded for connection to conduit or cable glands, and shall be explosionproof with boxes and fittings approved for Class I locations.
- (3) Threaded joints shall have at least five full threads fully engaged and running threads shall not be used.

(4) Cables shall be installed and supported in a manner to avoid tensile stress at the cable glands.

(5) Where it is necessary to use flexible connections at motor terminals and similar places, flexible fittings of the explosionproof type approved for the location shall be used.

18-106 Sealing, Class I, Division 1

(1) Seals shall be provided in conduit or cable systems to prevent the passage of gases, vapours, or

flames from one portion of the electrical installation to another through the system.

(2) Passage of gases, vapours, or flames through mineral-insulated cable is inherently prevented by construction of the cable, but sealing compound shall be used in cable glands to exclude moisture and other fluids from the cable insulation, and shall be of a type approved for the conditions of use.

(3) Seals shall be located:

- (a) In each run of conduit entering an enclosure for switches, circuit breakers, fuses, relays, resistors, or other apparatus which may produce arcs, sparks, or high temperatures and shall be as close as practicable to and in no case more than 450 millimetres from the enclosure, with no junction box or similar enclosure in the conduit run between the sealing fitting and the apparatus enclosure;
 - (b) In each run of conduit of 2-inch size or larger entering an enclosure or fitting housing terminals, splices, or taps, and within 450 millimetres of such enclosure or fitting;
 - (c) At each point where a cable enters an enclosure which is required to be explosion-proof;
 - (d) In each run of conduit leaving a Class I, Division 1 location with no box, coupling, or fitting in the conduit run between the seal and the point at which the conduit leaves the location, except that a rigid unbroken conduit which passes completely through a Class I, Division 1 area with no fittings less than 300 millimeters beyond each boundary, providing the termination points of the unbroken conduit are in non-hazardous areas, need not be sealed.
- (4) Where seals are required they shall conform to the following:
- (a) The seal shall be made:
 - (i) In a field installed sealing fitting which shall be accessible and approved for the location; or
 - (ii) In a sealing fitting provided as part of an approved enclosure and where the seal is factory-made the enclosure shall be so marked to indicate that such a seal is provided, except that motors and generators approved for the location need not be so marked;
 - (b) Sealing compound shall be approved for the purpose, shall not be affected by the surrounding atmosphere or liquids, and shall not have a melting point of less than 93 C;
 - (c) In the completed seal, the minimum thickness of the sealing compound shall be not less than the trade size of the conduit, and in no case less than $\frac{5}{16}$ inch;

- (d) Splices and taps shall not be made in fittings intended only for sealing with compound, nor shall other fittings in which splices or taps are made be filled with compound;
- (e) Where there is a probability that liquid or other condensed vapour may be trapped within enclosures for control equipment or at any point in the raceway system, approved means shall be provided to prevent accumulation or to permit periodic draining of such liquid or condensed vapour; and
- (f) Where there is a probability that liquid or condensed vapour may accumulate within motors or generators, joints and conduit systems shall be arranged to minimize entrance of liquid, but if means to prevent accumulation or permit periodic draining are judged necessary, such means shall be provided at the time of manufacture, and shall be deemed an integral part of the machine.

(5) Runs of cable each having a continuous sheath, either metal or non-metallic, is permitted to pass through a Class I, Division 1 location without seals.

(6) Cables which do not have a continuous sheath, either metal or non-metallic, shall be sealed at the boundary of the Division 1 location.

18-108 Switches, Motor Controllers, Circuit-Breakers and Fuses, Class I, Division 1. Switches, motor controllers, circuit-breakers and fuses, including push buttons, relays, and similar devices shall be provided with enclosures, and the enclosure in each case together with the enclosed apparatus shall be approved as a complete assembly for use in Class I locations.

18-110 Control Transformers and Resistors, Class I, Division 1. Transformers, impedance coils and resistors used as or in conjunction with control equipment for motors, generators and appliances and the switching mechanism, if any, associated with them, shall be approved for Class I locations.

18-112 Motors and Generators, Class I, Division 1. Motors, generators, and other rotating electrical machines shall be approved for Class I locations.

18-114 Ignition systems for Gas Turbines, Class I, Division 1. Ignition systems for gas turbines shall be approved for Class I, Division 1 locations.

18-116 Lighting Fixtures, Class I, Division 1

(1) Fixtures for fixed and portable lighting shall be approved as complete assemblies for Class I locations and shall be clearly marked to indicate the maximum wattage of lamps for which they are approved.

(2) Fixtures intended for portable use shall be specifically approved as complete assemblies for that use.

(3) Each fixture shall be protected against physical damage by a suitable guard or by location.

(4) Pendant fixtures shall be:

- (a) Suspended by and supplied through threaded rigid conduit stems, and threaded joints shall be provided with set screws or other effective means to prevent loosening;
- (b) For stems longer than 300 millimetres provided with permanent and effective bracing against lateral displacement at a level not more than 300 millimetres above the lower end of the stem or provided with flexibility in the form of a fitting or flexible connector approved for the purpose and for the location not more than 300 millimetres from the point of attachment to the supporting box or fitting.

(5) Boxes, box assemblies or fittings used for the support of lighting fixtures shall be approved for the purpose and for Class I locations.

18-118 Utilization Equipment, Fixed and Portable, Class I, Division 1.

(1) Utilization equipment, fixed and portable, including electrically-heated and motor-driven equipment, shall be approved for Class I locations.

(2) Ground fault protection shall be provided to de-energize all normally ungrounded conductors of an electric heat tracing cable set with a ground fault trip setting adjusted to allow normal operation of the heater.

18-120 Flexible Cords, Class I, Division 1. Flexible cords may be used only for connection between a portable lamp or other portable utilization equipment and the fixed portion of its supply circuit and where used shall:

- (a) Be of a type approved for extra hard usage;
- (b) Contain, in addition to the conductors of the circuit, a bonding conductor; and
- (c) Be provided with glands approved for the class and group where flexible cord enters a box, fitting or enclosure of the explosionproof type.

18-122 Receptacles and Attachment Plugs, Class I, Division 1. Receptacles and attachment plugs shall be of the type providing for connection to the bonding conductor of the flexible cord, and shall be approved for class I locations.

18-124 Conductor Insulation, Class I, Division 1. Where condensed vapours or liquids may collect on or come in contact with the insulation on conductors, such insulation shall be of a type approved for use under such conditions or the insulation shall be protected by a sheath of lead or by other approved means.

18-126 Signal, Alarm, Remote-Control, and Communication Systems, Class I, Division 1. Signal, alarm, remote-control, and communication systems shall conform to the following:

- (a) All apparatus and equipment shall be provided for Class I locations; and

- (b) All wiring shall comply with Rules 18-104 and 18-106.

18-128 Live Parts, Class I, Division 1. No live parts of electrical equipment or of an electrical installation shall be exposed.

18-130 Bonding, Class I, Division 1

(1) Exposed non-current-carrying metal parts of electrical equipment, including the frames or metal exteriors of motors, fixed or portable lamps or other utilization equipment, lighting fixtures, cabinets, cases, and conduit shall be bonded to ground in accordance with Section 10.

(2) The bonding path continuity and adequacy in a hazardous location and in a non-hazardous location from which the hazardous location is supplied, shall be ensured by the use of threaded connections, bonding jumpers with proper fittings, or other approved means, meeting the requirements of Rule 10-612.

Installation in Class I, Division 2 Locations

18-150 Process Instrumentation, Communication, and Remote Control Equipment Class I, Division 2. Process instrumentation, communication and remote control equipment shall be approved for the location except that transformers, solenoids and other windings that do not incorporate sliding or make and break contacts or resistance devices, need not be approved for the hazardous locations.

18-152 Wiring Methods, Class I, Division 2

(1) The wiring method shall be:

- (a) Threaded metal conduit;
- (b) Cables approved for hazardous locations with associated cable glands approved for the particular hazardous location or;
- (c) Type TC cable installed in cable tray in accordance with Rule 12-2204, enclosed in rigid conduit or other acceptable wiring method wherever it leaves the cable tray.

(2) Cables shall be installed and supported in a manner to avoid tensile stress at the cable glands.

(3) Where it is necessary to use flexible connections at motor terminals and similar places, flexible metal conduit may be used.

(4) Boxes, fittings and joints need not be explosion-proof except as required by Rule 18-106 (4).

18-154 Sealing, Class I, Division 2

(1) Seals shall be provided in conduit systems to prevent the passage of gases, vapours, or flames from one portion of the electrical installation to another through the conduit.

(2) Passage of gases, vapours, or flames through mineral-insulated cable other than the light-weight type is inherently prevented by construction of the cable, but sealing compound shall be used in cable termination fittings to exclude moisture and other fluids from the cable insulation, and shall be of a type approved for the conditions of use.

(3) Seals shall be located:

(a) In each run of conduit entering an enclosure which is required to be explosionproof, as close as practicable to, and, in no case, more than 450 millimetres from the enclosure, with no junction box or similar enclosure in the conduit run between the sealing fitting and the apparatus enclosure;

(b) In each run of conduit leaving Class I, Division 2 location with no box, coupling, or fitting in the conduit run between the seal and the point at which the conduit leaves the location, except that rigid unbroken conduit which passes completely through a Class I, Division 2 area with no fittings 300 millimetres beyond each boundary, providing the termination points of the unbroken conduit are in non-hazardous areas, need not be sealed; and

(c) At each point where a cable enters an enclosure which is required to be explosionproof.

(4) Where a run of conduit enters an enclosure which is required to be explosionproof, every part of the conduit from the seal to the explosionproof enclosure shall comply with Rule 18-104.

(5) Runs of cable each having a continuous sheath, either metal or non-metallic are permitted to pass through a Class I, Division 2 location without seals.

(6) Cables which do not have a continuous sheath, either metal or non-metallic, shall be sealed at the boundary of the Division 2 location.

(7) Where seals are required, Rule 18-106 (4) shall apply.

18-156 Switches, Controllers, and Circuit Breakers, Class I, Division 2. Switches, controllers, and circuit breakers shall be provided with enclosures approved for the location.

18-158 Isolating Switches, Class I, Division 2. Isolating switches shall conform to the following:

(a) They shall be so interlocked with their associated current-interrupting devices that they cannot be opened under load; and

(b) They may have enclosures of the general-purpose type, provided they are unfused.

18-160 Fuses for Motors, Appliances, and Portable Lamps, Class I, Division 2. Where fuses are used in Class I, Division 2 locations for the protection of motors, appliances, and portable lamps:

(a) A standard plug or cartridge fuse may be used if placed within an explosionproof enclosure approved for the class of the location; or

(b) A fuse of a type in which the operating element is immersed in oil or other approved liquid, or is enclosed within a chamber hermetically sealed against the entrance of gases and vapours, may be used if approved for the purpose and placed within a general-purpose enclosure.

18-162 Sets of Fuses or Circuit Breakers for Fixed Lighting, Class I, Division 2.

(1) In this Rule, "sets of fuses" means a group containing as many fuses as are required to perform a single protective function in a circuit, but excluding fuses conforming to Rule 18-160.

(2) Where:

(a) Not more than 10 sets of approved enclosed fuses; or

(b) Not more than 10 circuit breakers which are not used as switches for the normal operation of the lamps,

are installed in Class I, Division 2 locations for the protection of a branch circuit or a feeder circuit which supplies only lamps in a fixed position, the enclosures for the fuses or circuit breakers may be of the general-purpose type.

18-164 Motors and Generators, Class I, Division 2

(1) Motors, generators, and other rotating electrical machines, in which are incorporated arcing or spark producing components or integral resistance devices shall be approved for Class I locations unless the arcing or spark producing components or integral resistance devices are provided with enclosures approved for Class I locations.

(2) Motors, generators, and other rotating electrical machines which do not incorporate arcing or spark producing components or integral resistance devices may be of the open or non-explosionproof type.

18-166 Ignition Systems for Stationary Internal Combustion Engines, Class I, Division 2. Ignition systems for stationary internal combustion engines shall be approved for Class I, Division 2 locations.

18-168 Lighting Fixtures, Class I, Division 2

(1) Lighting fixtures shall conform to the following:

(a) Portable lamps shall conform to Rule 18-116 (1) and (2); and

(b) Fixed lighting:

(i) Shall be protected from physical damage by acceptable guards or by location;

(ii) Shall be approved as complete assemblies for Class I, Division 2 locations and shall be

clearly marked to indicate the maximum wattage, voltage, and specific type designations of the lamps for which they are approved.

(2) Pendent fixtures shall be:

(a) Suspended by threaded rigid conduit stems or by other approved means;

(b) For stems longer than 300 millimetres, provided with permanent and effective bracing against lateral displacement at a level not more than 300 millimetres above the lower end of the stem, or flexibility in the form of a fitting or flexible connector approved for the purpose shall be provided not more than 300 millimetres from the point of attachment to the supporting box or fitting.

(3) Boxes, box assemblies, or fittings used for the support of lighting fixtures shall be approved for the purpose.

(4) Switches which are part of an assembled fixture or of an individual lampholder shall conform to Rule 18-156.

(5) Starting and control equipment for electric-discharge lighting equipment shall be provided with enclosures approved for the location.

18-170 Utilization Equipment, Fixed and Portable, Class I, Division 2

(1) Electrically heated utilization equipment, whether fixed or portable, shall be approved for Class I locations.

(2) Motors of motor-driven utilization equipment shall conform to Rule 18-164.

(3) Switches, circuit breakers, and fuses forming part of or used in connection with utilization equipment, shall conform to Rules 18-156 to 18-160.

18-172 Flexible Cords, Class I Division 2. Flexible cords shall be permitted to be used only for connection between permanently mounted lighting fixtures, portable lamps, or other portable utilization equipment and the fixed portion of supply circuits, and where used shall:

- (a) Be of a type approved for extra hard usage;
- (b) Contains, in addition to the circuit conductors, a bonding conductor; and
- (c) Be provided with glands approved for the class and group where flexible cord enters a box, fitting or enclosure of the explosionproof type.

18-174 Receptacles and Attachment Plugs, Class I, Division 2. Receptacles and attachment plugs shall conform to Rule 18-120.

18-176 Live Parts, Class I, Division 2. No live parts of electrical equipment or of an electrical installation shall be exposed.

18-178 Bonding, Class I, Division 2. Electrical equipment shall be bonded to ground in the manner required by Rule 18-130.

CLASS II LOCATIONS

Installations in Class II, Division 1 Locations

18-200 Transformers and Capacitors, Class II, Division 1

(1) Transformers and electrical capacitors which contain a liquid that will burn shall be installed in electrical equipment vaults in accordance with Rules 26-350 to 26-356; and

(a) Doors or other openings communicating with the hazardous area shall have self-closing fire doors on both sides of the wall, and the doors shall be carefully fitted and provided with suitable seals (such as weather stripping) to minimize the entrance of dust into the vault;

(b) Vent openings and ducts shall communicate only with the air outside the building; and

(c) Suitable pressure-relief openings communicating only with the air outside the building shall be provided.

(2) Transformers and electrical capacitors which do not contain a liquid that will burn shall be:

(a) Installed in electrical equipment vaults conforming to Subrule (1); or

(b) Approved as a complete assembly including terminal connections for Class II locations.

(3) No transformer or capacitor shall be installed in a location where dust from magnesium, aluminum, aluminum bronze powders, or other metals of similarly hazardous characteristics may be present.

18-202 Wiring Methods, Class II, Division 1

(1) The wiring method shall be threaded rigid metal conduit or cables approved for hazardous locations with associated cable glands approved for the particular hazardous location.

(2) Boxes, fittings and joints shall be threaded for connection to conduit or cable glands, and boxes and fittings shall be approved for Class II locations.

(3) Cables shall be installed and supported in a manner to avoid tensile stress at the cable glands.

(4) Where flexible connections are necessary they shall be provided by:

(a) Flexible connection fittings approved for the location;

- (b) Liquid-tight flexible metal conduit with fittings approved for the location; or
- (c) Extra-hard usage flexible cord provided with cable glands approved for the location.

(5) Where flexible connections are subject to oil or other corrosive conditions, the insulation of the conductors shall be of a type approved for the condition or shall be protected by means of a suitable sheath.

18-204 Sealing, Class II, Division 1. Where a raceway provides communication between an enclosure which is required to be dust-tight and one which is not, the entrance of dust into the dust-tight enclosure through the raceway shall be prevented by:

- (a) A permanent and effective seal;
- (b) A horizontal section not less than 3 metres long in the raceway; or
- (c) A vertical section of raceway not less than 1.5 metres long and extending downward from the dust-tight enclosure.

18-206 Switches, Controllers, Circuit Breakers, and Fuses, Class II, Division 1. Switches, motor controllers, circuit breakers, and fuses, including push buttons, relays, and similar devices shall be provided with a dust-tight enclosure approved for Class II locations.

18-208 Control Transformers and Resistors, Class II, Division 1. Transformers, impedance coils, and resistors used as or in conjunction with control equipment for motors, generators or electric appliances and the overcurrent devices or switching mechanisms, if any, associated with them shall be provided with a dust-tight enclosure approved for Class II locations.

18-210 Motors and Generators, Class II, Division 1. Motors, generators, and other rotating electrical machines shall be approved for Class II locations.

18-212 Ventilating Pipes, Class II, Division 1

(1) Every vent pipe for a motor, generator, or other rotating electrical machine or for enclosures for electrical apparatus or equipment shall:

- (a) Be of metal not less than 0.0209 inch (No. 24 MSG) thick or of an equally substantial non-combustible material;
- (b) Lead directly to a source of clean air outside a building;
- (c) Be screened at the outer end to prevent the entrance of animals or birds; and
- (d) Be protected against mechanical damage and corrosion.

(2) Every vent pipe and its connection to a motor or to a dust-tight enclosure for other equipment or apparatus shall be dust-tight throughout its entire length.

(3) The seams and joints of every metal vent pipe shall be:

- (a) Riveted and soldered;
 - (b) Bolted and soldered;
 - (c) Welded; or
 - (d) Rendered dust-tight by some other equally effective means.
- (4) No exhaust pipe shall discharge inside a building.

18-214 Utilization Equipment, Fixed and Portable, Class II, Division 1. Utilization equipment, fixed and portable, including electrically heated and motor-driven equipment shall be approved for Class II locations.

18-216 Lighting Fixtures, Class II, Division 1

(1) Fixtures for fixed and portable lighting shall be approved as complete assemblies for Class II locations and shall be clearly marked to indicate the maximum wattage of lamps for which they are approved.

(2) Fixtures intended for portable use shall be specifically approved as complete assemblies for that use.

(3) Each fixture shall be protected against physical damage by a suitable guard or by location.

(4) Pendent fixtures shall be:

- (a) Suspended by threaded rigid conduit stems or chains with approved fittings or by other approved means which shall not include a flexible cord as the supporting medium, and threaded joints shall be provided with set screws or other effective means to prevent loosening;
- (b) For rigid stems longer than 300 millimetres, provided with permanent and effective bracing against lateral displacement at a level not more than 300 millimetres above the lower end of the stem, or provided with flexibility in the form of a fitting or flexible connector approved for the purpose and for the location not more than 300 millimetres from the point of attachment to the supporting box or fitting; and

(c) Where wiring between an outlet box or fitting and the fixture is not enclosed in conduit, provided with a flexible cord approved for extra hard usage and suitable seals where the cord enters the fixture and the outlet box or fitting.

(5) Boxes, box assemblies or fittings used for the support of lighting fixtures shall be approved for the purpose and Class II locations.

18-218 Flexible Cords, Class II, Division 1. Flexible cords used shall:

- (a) Be of a type approved for extra hard usage;
- (b) Contain a bonding conductor in addition to the conductors of the circuit; and
- (c) Be provided with glands approved for the class and group to prevent the entrance of dust at the point where the cord enters a box or fitting

which is required by this Section to be dust-tight.

18-220 Receptacles and Attachment Plugs, Class II, Division 1. Receptacles and attachment plugs shall be approved for Class II locations.

18-222 Signal, Alarm, Remote-Control, and Communication Systems, Meters, Instruments, and Relays, Class II, Division 1. Signal, alarm, remote-control, and communication systems, and meters, instruments and relays shall conform to the following:

- (a) All apparatus and equipment shall be provided with enclosures approved for Class II locations, except that:
 - (i) Devices which carry or interrupt only a voice current shall not be required to be provided with such enclosures; and
 - (ii) Current-breaking contacts which are immersed in oil or enclosed in a chamber sealed against the entrance of dust are permitted to be provided with a general purpose enclosure if the prevailing dust is electrically non-conductive;
- (b) All wiring shall comply with Rules 18-202 and 18-204.

18-224 Live Parts, Class II, Division 1. No live parts of electrical equipment or of an electrical installation shall be exposed.

18-226 Bonding, Class II, Division 1. Electrical equipment shall be bonded to ground in the manner prescribed by Rule 18-130.

Installation in Class II, Division 2 Locations

18-250 Transformers and Capacitors, Class II, Division 2

(1) Transformers and electrical capacitors which contain a liquid that will burn shall be installed in electrical equipment vaults in accordance with Rules 26-350 to 26-356.

(2) Transformers and electrical capacitors which contain a liquid that will not burn shall be:

- (a) Installed in electrical equipment vaults in accordance with Rules 26-350 to 26-356; or
- (b) Approved for Class II locations.
- (3) Dry core transformers installed in Class II, Division 2 locations shall:
 - (a) Be installed in electrical equipment vaults in accordance with Rules 26-350 to 26-356; or
 - (b) Have their windings and terminal connections enclosed in tight housings without ventilating or other openings and operate at not more than 750 volts.

18-252 Wiring Methods, Class II, Division 2

(1) The wiring method shall be:

- (a) Threaded metal conduit; or
- (b) Cables approved for hazardous locations with associated cable glands approved for the particular hazardous location or;
- (c) Type TC cable installed in cable tray in accordance with Rule 12-2204, enclosed in rigid conduit or other acceptable wiring method wherever it leaves the cable tray.

(2) Boxes and fittings in which taps, joints or terminal connections are made shall be either a CSA Enclosure 4 or 5 or:

- (a) Be provided with telescoping or close-fitting covers, or other effective means to prevent the escape of sparks or burning material; and
- (b) Have no openings, such as holes for attachment screws, through which, after installation, sparks or burning material might escape, or through which exterior accumulations of dust or adjacent combustible material might be ignited.

(3) Cables shall be installed and supported in a manner to avoid tensile stress at the cable glands.

(4) Where it is necessary to use flexible connections the provisions of Rule 18-202 (4) and (5) shall apply.

18-254 Sealing, Class II, Division 2. Sealing of raceways shall conform to Rule 18-204.

18-256 Switches, Controllers, Circuit Breakers, and Fuses, Class II, Division 2

(1) Except as provided by Subrule (2), enclosures for switches, motor controllers, circuit breakers, and fuses, including push buttons, relays and similar devices shall be either a CSA Enclosure 4 or 5 or:

- (a) Be equipped with telescoping or close-fitting covers, or with other effective means to prevent the escape of sparks or burning material; and
- (b) Have no openings, such as holes for attachment screws, through which, after installation, sparks or burning material might escape, or through which exterior accumulations of dust or adjacent combustible material might be ignited.

(2) In locations where dust from magnesium, aluminum, aluminum bronze powders, or other metals of similarly hazardous characteristics may be present, switches, motor controllers, circuit breakers and fuses shall have dust-tight enclosures approved for such locations.

18-258 Control Transformers and Resistors, Class II, Division 2

(1) Switching mechanisms, including overcurrent devices, used in conjunction with control trans-

formers, impedance coils, and resistors shall be provided with enclosures conforming to Rule 18-256.

(2) Where not located in the same enclosure with switching mechanisms, control transformers and impedance coils shall be provided with tight housings without ventilating openings.

(3) Resistors and resistance devices shall have dust-tight enclosures approved for Class II locations, except that where the maximum normal operating temperature of the resistor will not exceed 120°C nonadjustable resistors and resistors which are part of an automatically timed starting sequence may have enclosures conforming to Subrule (2).

18-260 Motors and Generators, Class II, Division 2

(1) Except as provided in Subrule (2), motors, generators, and other rotating electrical machinery shall be:

- (a) Approved for Class II, or Class II, Division 2 locations; or
- (b) Ordinary totally enclosed pipe-ventilated or totally enclosed fan-cooled subject to the following:
 - (i) Be equipped with integral overheating protection in accordance with Rule 28-314; and
 - (ii) If drain holes or other openings are provided they shall be closed with threaded plugs.

(2) Where only moderate quantities of non-conducting, non-abrasive dust are likely to accumulate in a location and the equipment in the location is readily accessible for routine maintenance, there may be installed in the location:

- (a) Standard open-type machines having Class A insulation without sliding contacts, centrifugal or other types of switching mechanism, including motor overcurrent devices or integral resistance devices; and
- (b) Standard open-type machines having Class A insulation which have the contacts, switching mechanisms, or resistance devices enclosed in accordance with Rule 18-256.

18-262 Ventilation Pipes, Class II, Division 2

(1) Vent pipes for motors, generators, or other rotating electrical machinery, or for enclosures for electrical apparatus or equipment, shall conform to Rule 18-212 (1).

(2) Vent pipes and their connections shall be sufficiently tight to prevent the entrance of appreciable quantities of dust into the ventilated equipment or enclosure, and to prevent the escape of sparks, flame or burning material which might ignite accumulations of dust or combustible material in the vicinity.

(3) Where metal vent pipes are used, lock seams and riveted or welded joints may be used and, where some flexibility is necessary, as at connections to motors, tight-fitting slip joints may be used.

18-264 Utilization Equipment, Fixed and Portable, Class II, Division 2

(1) Electrically heated utilization equipment, whether fixed or portable, shall be approved for Class II locations.

(2) Motors of motor-driven utilization equipment shall conform to Rule 18-260.

(3) The enclosure for switches, circuit breakers, and fuses shall conform to Rule 18-256.

(4) Transformers, impedance coils, and resistors forming part of or used in connection with utilization equipment shall conform to Rule 18-258 (2), (3).

(5) Where portable utilization equipment may be used in Class II, Division 1 locations and in Class II, Division 2 locations, it shall conform to Rule 18-214.

18-266 Lighting Fixtures, Class II, Division 2

(1) Lighting fixtures shall conform to the following:

(a) Portable lamps shall be approved as complete assemblies for Class II locations and shall be clearly marked to indicate the maximum wattage of lamps for which they are approved; and

(b) Fixed lighting, shall:

(i) Be protected from physical damage by acceptable guards or by location;

(ii) Provide enclosures for lamps and lamp-holders which shall be designed to minimize the deposit of dust on lamps and to prevent the escape of sparks, burning material or hot metal;

(iii) Be clearly marked to indicate the maximum wattage of lamps for which they may be used without exceeding a maximum exposed surface temperature of 165°C under normal conditions of use.

(2) Pendant fixtures shall be:

(a) Suspended by threaded rigid conduit stems or chains with approved fittings, or by other approved means, which shall not include flexible cord as the supporting medium;

(b) For rigid stems longer than 300 millimetres provided with permanent and effective bracing against lateral displacement at a level not more than 300 millimetres above the lower end of the stem, or provided with flexibility in the form of a fitting or flexible connector approved for the purpose not more than 300 millimetres from the point of attachment to the supporting box or fitting; and

- (c) Where wiring between an outlet box or fitting and the fixture is not enclosed in conduit, provided with a flexible cord approved for extra hard usage.

(3) Boxes, box assemblies or fittings used for the support of lighting fixtures shall be approved for that purpose.

(4) Starting and control equipment for mercury vapour and fluorescent lamps shall conform to Rule 18-258.

18-268 Flexible Cords, Class II, Division 2. Flexible cords shall conform to Rule 18-218.

18-270 Receptacles and Attachment Plugs, Class II, Division 2. Receptacles and attachment plugs shall be:

- (a) Of a polarized type which affords automatic connection to the bonding conductor of the flexible supply cord; and
- (b) Designed so that the connection to the supply circuit cannot be made or broken while live parts are exposed.

18-272 Signal, Alarm, Remote-Control, and Communication Systems, Meters, Instruments, and Relays, Class II, Division 2. Signal, alarm, remote-control, and communications systems, and meters, instruments and relays shall conform to the following:

- (a) Contacts which interrupt other than voice currents shall be enclosed in conformity with Rule 18-256;
- (b) The windings and terminal connections of transformers and choke coils which may carry other than voice currents shall be provided with tight enclosures without ventilating openings; and
- (c) Resistors, resistance devices, thermionic tubes, and rectifiers which may carry other than voice currents shall be provided with dust-tight enclosures approved for Class II locations, except that where the maximum normal operating temperature of thermionic tubes, non-adjustable resistors or rectifiers will not exceed 120°C such devices may have tight enclosures without ventilating openings.

18-274 Live Parts, Class II, Division 2. No live parts of electrical equipment or of an electrical installation shall be exposed.

18-276 Bonding, Class II, Division 2. All electrical equipment shall be bonded to ground in the manner required by Rule 18-130.

Class III Locations

Installation in Class III, Division 1 Locations

18-300 Transformers and Capacitors, Class III, Division 1. Transformers and electrical capacitors shall conform to Rule 18-250.

18-302 Wiring Methods, Class III, Division 1

(1) The wiring method shall be threaded rigid metal conduit or cables approved for hazardous locations with associated cable glands approved for the particular hazardous location.

(2) Boxes and fittings in which taps, joints, or terminal connections are made shall be either a CSA Enclosure 5 or:

- (a) Be provided with telescoping or close fitting covers, or other effective means to prevent the escape of sparks or burning material; and
- (b) Have no openings, such as holes for attachment screws, through which, after installation, sparks or burning material might escape, or through which adjacent combustible material might be ignited.

(3) Cables shall be installed and supported in a manner to avoid tensile stress at the cable glands.

(4) where it is necessary to use flexible connections the provisions of Rule 18-202 (4) and (5) shall apply.

18-304 Switches, Controllers, Circuit Breakers and Fuses, Class III, Division 1. Switches, motor controllers, circuit breakers, and fuses, including push buttons, relays and similar devices, shall be either a CSA Enclosure 5 or provided with tight enclosures designed to minimize entrance of fibres and flyings, and which shall:

- (a) Be equipped with telescoping or close fitting covers, or with other effective means to prevent escape of sparks or burning material; and
- (b) Have no openings, such as holes for attachment screws, through which, after installation, sparks or burning material might escape or through which exterior accumulations of fibres or flyings or adjacent combustible material might be ignited.

18-306 Control Transformers and Resistors, Class III, Division 1. Transformers, impedance coils, and resistors used as or in conjunction with control equipment for motors, generators, and appliances, shall conform to Rule 18-258, with the exception that, when these devices are in the same enclosure with switching devices of such control equipment, and are used only for starting or short-time duty, the enclosure shall conform to the requirements of Rule 18-304.

18-308 Motors and Generators, Class III, Division 1

(1) Except as provided in Subrule (2), motors, generators, and other rotating electrical machinery shall be:

- (a) Totally enclosed non-ventilated;
- (b) Totally enclosed pipe-ventilated; or
- (c) Totally enclosed fan-cooled.

(2) Where, only moderate accumulations of lint and flyings are likely to collect on, in, or in the vicinity of a

rotating electrical machine and the machine is readily accessible for routine cleaning and maintenance, there may be installed in the location:

- (a) Standard open-type machines without sliding contacts, centrifugal, or other types of switching mechanism, including motor overload devices;
 - (b) Standard open-type machines which have contacts, switching mechanisms, or resistance devices enclosed within tight housings without ventilating or other openings; or
 - (c) Self-cleaning textile motors of the squirrel-cage type.
- (3) Motors, generators, or other rotating electrical machinery of the partially enclosed or splash-proof type shall not be installed in Class III locations.

18-310 Ventilating Pipes, Class III, Division 1

(1) Vent pipes for motors, generators, or other rotating electrical machinery or for enclosures for electrical apparatus or equipment shall conform to Rule 18-212 (1).

(2) Vent pipes and their connections shall be sufficiently tight to prevent the entrance of appreciable quantities of fibres or flyings into the ventilated equipment or enclosure, and to prevent the escape of sparks, flame, or burning material which might ignite accumulations of fibres or flyings or combustible material in the vicinity.

(3) Where metal vent pipes are used, lock seams and riveted or welded joints may be used and, where some flexibility is necessary, tight-fitting slip joints may be used.

18-312 Utilization Equipment, Fixed and Portable, Class III, Division 1

(1) Electrically heated utilization equipment, whether fixed or portable, shall be approved for Class III locations.

(2) Motors of a motor-driven utilization equipment shall conform to Rule 18-358.

(3) The enclosures for switches, motor controllers, circuit breakers, and fuses shall conform to Rule 18-304.

18-314 Lighting Fixtures, Class III, Division 1

(1) Lighting fixtures shall conform to the following:

- (a) Portable lamps shall:
 - (i) Be equipped with handles;
 - (ii) Be protected with substantial guards;
 - (iii) Have lampholders of the unswitched type with no exposed metal parts and without provision for receiving attachment plugs; and
 - (iv) In all other aspects comply with Rule 18-314 (1) (b).

(b) Fixed lighting shall:

- (i) Provide enclosures for lamps and lampholders which shall be designed to minimize entrance of fibres and flyings and to prevent the escape of sparks, burning material, or hot metal;
- (ii) Be clearly marked to indicate the maximum wattage lamp which may be used without exceeding a maximum exposed surface temperature of 165°C. under normal conditions of use.

(2) Lighting fixtures which may be exposed to physical damage shall be protected by a suitable guard.

(3) Pendent fixtures shall comply with Rule 18-266 (2).

(4) Boxes, box assemblies or fittings used for the support of lighting fixtures shall be approved for that purpose.

(5) Starting and control equipment for mercury vapour and fluorescent lamps shall comply with Rule 18-306.

18-316 Flexible Cords, Class III, Division 1. Flexible cords shall comply with Rule 18-218.

18-318 Receptacles and Attachment Plugs, Class III, Division 1. Receptacles and attachment plugs shall comply with Rule 18-270.

18-320 Signal, Alarm, Remote-Control, and Communication Systems, Class III, Division 1. Signal, alarm, remote-control, and communication systems shall comply with Rule 18-272.

18-322 Electric Cranes and Hoists, and Similar Equipment, Class III, Division 1. Where installed for operation over combustible fibres or accumulations of flyings, travelling cranes and hoists for material handling, travelling cleaners for textile machinery, and similar equipment shall conform to the following:

- (a) Power supply to contact conductors shall be isolated from all other systems and shall be ungrounded, and shall be equipped with an acceptable recording ground detector which will give an alarm and will automatically de-energize the contact conductors in case of a fault to ground, or with an acceptable ground fault indicator which will give a visual and audible alarm, and maintain the alarm as long as power is supplied to the system and the ground fault remains;
- (b) Contact conductors shall be so located or guarded as to be inaccessible to other than authorized persons, and shall be protected against accidental contact with foreign objects.
- (c) Current collectors shall conform to the following:
 - (i) They shall be arranged or guarded to confine normal sparking and to prevent escape of sparks or hot particles;
 - (ii) To reduce sparking, two or more separate surfaces of contact shall be provided for each contact conductor; and

(iii) Reliable means shall be provided to keep contact conductors and current collectors free of accumulations of lint or flyings.

(d) Control equipment shall comply with Rules 18-304 and 18-306.

18-324 Electric Trucks, Class III, Division 1. Electric trucks shall be of an acceptable type.

18-326 Storage-Battery Charging Equipment, Class III, Division 1. Storage-battery charging equipment shall be located in separate rooms built or lined with substantial noncombustible materials so constructed as to adequately exclude flyings or lint, and shall be well ventilated.

18-328 Live Parts, Class III, Division 1. No live parts of electrical equipment or of an electrical installation shall be exposed, except as provided in Rule 18-322.

18-330 Bonding, Class III, Division 1. Electrical equipment shall be bonded to ground as prescribed by Rule 18-130.

Installation in Class III, Division 2 Locations

18-350 Transformers and Capacitors, Class III, Division 2. Transformers and capacitors shall conform to Rule 18-250.

18-352 Wiring Methods, Class III, Division 2. The wiring method in Class III, Division 2 locations shall conform to Rule 18-302 except that in sections, compartments, or areas used solely for storage and containing no machinery, open wiring on insulators in accordance with Rules 12-202 to 12-224 may be used, provided that, where conductors are installed elsewhere than in roof spaces and remote from physical damage, they shall be protected as required by Rules 12-212 and 12-214.

18-354 Switches, Controllers, Circuit Breakers, and Fuses, Class III, Division 2. Switches, motor controllers, circuit breakers, and fuses shall conform to Rule 18-304.

18-356 Control Transformers and Resistors, Class III, Division 2. Transformers, impedance coils, and resistors used as or in conjunction with control equipment for motors, generators and appliances shall conform to Rule 18-306.

18-358 Motors and Generators, Class III, Division 2.

(1) Motors, generators, and other rotating electrical machinery shall be:

- (a) Totally enclosed non-ventilated;
- (b) Totally enclosed pipe-ventilated; or
- (c) Totally enclosed fan-cooled.

(2) Motors, generators, or other rotating electrical machinery of the partially enclosed or splash-proof type shall not be installed in Class III locations.

18-360 Ventilating Pipes, Class III, Division 2. Ventilating pipes shall conform to Rule 18-212 (1).

18-362 Utilization Equipment, Fixed and Portable, Class III, Division 2. Fixed or portable utilization equipment shall conform to Rule 18-312.

18-364 Lighting Fixtures, Class III, Division 2. Lighting fixtures shall conform to Rule 18-314.

18-366 Flexible Cords, Class III, Division 2. Flexible cords shall conform to Rule 18-218.

18-368 Receptacles and Attachment Plugs, Class III, Division 2. Receptacles and attachment plugs shall conform to Rule 18-270.

18-370 Signal, Alarm, Remote-Control, and Communication Systems, Class III, Division 2. Signal, alarm, remote-control, and communication systems shall conform to Rule 18-272.

18-372 Electric Cranes and Hoists and Similar Equipment, Class III, Division 2. Electric cranes and hoists and similar equipment shall be installed as prescribed by Rule 18-322.

18-374 Electric Trucks, Class III, Division 2. Electric trucks shall conform to Rule 18-324.

18-376 Storage-Battery Charging Equipment, Class III, Division 2. Storage-battery charging equipment shall be located in rooms conforming to Rule 18-326.

18-378 Live Parts, Class III, Division 2. No live parts of electrical equipment or of an electrical installation shall be exposed, except as provided in Rule 18-322.

18-380 Bonding, Class III, Division 2. Equipment shall be bonded to ground in conformity with Rule 18-130.

SECTION 20—FLAMMABLE LIQUID DISPENSING AND SERVICE STATIONS, GARAGES, BULK STORAGE PLANTS, FINISHING PROCESSES, AND AIRCRAFT HANGARS

20-000 Scope. This Section is supplementary to, or amendatory of, the general requirements of this Code and applies to the following installations:

- (a) Gasoline dispensing and service stations—Rules 20-002 to 20-014;
- (b) Commercial garages, repair and storage—Rules 20-100 to 20-114;
- (c) Residential storage garages—Rules 20-200 to 20-206;
- (d) Bulk storage plants—Rules 20-300 to 20-312;
- (e) Finishing processes—Rules 20-400 to 20-412; and
- (f) Aircraft hangars—Rules 20-500 to 20-522.

Gasoline Dispensing and Service Stations**20-002 General**

(1) Rules 20-002 to 20-014 inclusive apply to electrical apparatus and wiring installed in gasoline dispensing and service stations, and other locations where gasoline or other similar volatile flammable liquids are dispensed or transferred to the fuel tanks of self-propelled vehicles.

(2) Other areas used as lubrication rooms, service rooms and repair rooms, and offices, salesrooms, compressor rooms and similar locations shall conform to Rules 20-100 to 20-114 with respect to electrical wiring and equipment.

20-004 Hazardous Areas

(1) Except as provided for in Subrule (3), the space within a dispenser enclosure up to 1.2 metres vertically above its base including the space below the dispenser which may contain electrical wiring and equipment shall be considered to be a Class I, Division 1 location.

(2) The space within a nozzle boot of a dispenser shall be considered to be a Class I, Division 1 location.

(3) The space within a dispenser enclosure above the Class I, Division 1 location as specified in Subrule (1) or spaces within a dispenser enclosure isolated from the Division 1 location by a solid vapour-tight partition or by a solid nozzle boot but not completely surrounded by a Division 1 location shall be considered to be a Class I, Division 2 location.

(4) The space within 450 millimetres horizontally from the Division 1 location within the dispenser enclosure as specified in Subrule (1) shall be considered to be a Class I, Division 1 location.

(5) The space outside the dispenser within 450 millimetres horizontally from the opening of a solid nozzle boot located above the vapour-tight partition shall be considered to be a Class I, Division 2 location except that the classified area need not be extended beyond the plane in which the boot is located.

(6) In an outside location, any area beyond the Class I, Division 1 area (and in buildings not suitably cut off) within 6 metres horizontally from the exterior enclosure of any dispenser, shall be considered a Class I, Division 2 location, which will extend to a level 450 millimetres above driveway or ground level.

(7) In an outside location, any area beyond the Class I, Division 1 location (and in buildings not suitably cut off) within 3 metres horizontally from any tank fill-pipe shall be considered a Class I, Division 2 location which shall extend upward to a level 450 millimetres above driveway or ground level.

(8) Electrical wiring and equipment, any portion of which is below the surface of areas defined as Class I, Division 1 or Division 2 in Subrules (1), (4), (6) or (7) shall be considered to be within a Class I, Division 1 location which shall extend at least to the point of emergence above grade.

(9) Areas within the vicinity of tank vent-pipes shall be classified as follows:

(a) The spherical volume within a 900 millimetres radius from point of discharge of any tank vent-pipe shall be considered a Class I, Division 1 location and the volume between the 900 millimetres to 1.5 metres radius from point of discharge of a vent shall be considered a Class I, Division 2 location;

(b) For any vent that does not discharge upward, the cylindrical volume below both the Division 1 and Division 2 locations extending to the ground shall be considered a Class I, Division 2 location; and

(c) The hazardous area shall not be considered to extend beyond an unpierced wall.

(10) Areas within lubrication rooms shall be classified as follows:

(a) The area within any pit or space below grade or floor level in a lubrication room shall be considered a Class I, Division 1 location, unless the pit or space below grade is beyond the hazardous areas specified in Subrules (6), (7) and (9) in which case the pit or space below grade shall be considered Class I, Division 2 location;

(b) The area within the entire lubrication room up to 50 millimetres above the floor or grade, whichever is the higher, and the area within 900 millimetres measured in any direction from the dispensing point of a hand-operated unit dispensing volatile flammable liquids shall be considered a Class I, Division 2 location.

20-006 Wiring and Equipment Within Hazardous Areas

(1) Electrical wiring and equipment within the hazardous areas defined in Rule 20-004 shall conform to Section 18 requirements.

(2) Where dispensers are supplied by rigid metal conduit, a flexible fitting complying with Rule 18-104(5) shall be used between the conduit and the junction box of the dispenser, in addition to any sealing fittings and unions that may be required by Section 18.

(3) The flexible metal fitting required by Subrule (2) shall be installed in such a manner as to allow for relative movement of the conduit and the dispenser.

20-008 Wiring and Equipment Above Hazardous Areas. Wiring and equipment above hazardous areas shall conform to Rules 20-106 and 20-110.

20-010 Circuit Disconnects. Each circuit leading to or through a dispensing pump shall be provided with a switching means which will disconnect all ungrounded conductors of the circuit from the source of supply simultaneously.

20-012 Sealing

(1) An approved seal shall be provided in each conduit run entering or leaving a dispenser or any cavities or enclosures in direct communication therewith.

(2) Additional seals shall be provided in conformance with Rules 18-106 and 18-156, and the requirements of Rules 18-106(3)(d) and 18-154(3)(b) shall include horizontal and vertical boundaries.

20-014 Bonding. All non-current-carrying metal parts of dispensing pumps, metallic raceways and other electrical equipment shall be bonded to ground in accordance with Section 10.

Commercial Garages, Repair and Storage

20-100 Scope. Rules 20-100 to 20-114 apply to locations used for service and repair operations in connection with self-propelled vehicles in which volatile flammable liquids or flammable gases are used for fuel or power, and locations in which more than three such vehicles are, or may be, stored at one time.

20-102 Hazardous Areas

(1) For each floor at or above grade, the entire area up to a level 50 millimetres above the floor shall be considered to be a Class I, Division 2 location.

(2) For each floor below grade, the entire area up to a level 50 millimetres above the bottom of outside doors or other openings which are at, or above, grade level shall be considered to be a Class I, Division 2 location except that where adequate mechanical ventilation is provided, the hazardous location shall extend up to a level of only 50 millimetres above each such floor.

(3) Any pit or depression below floor level shall be considered to be a Class I, Division 2 location which shall extend up to the floor level.

(4) Adjacent areas in which hazardous vapours are not likely to be released such as stockrooms, switchboard rooms, and other similar locations having floors elevated at least 50 millimetres above the adjacent garage floor or separated therefrom by tight curbs or partitions at least 50 millimetres high shall not be classed as hazardous.

20-104 Wiring and Equipment in Hazardous Areas. Within hazardous areas as defined in Rule 20-102, wiring and equipment shall conform to the applicable requirements of Section 18.

20-106 Wiring Above Hazardous Areas

(1) All fixed wiring above hazardous areas shall be in accordance with Section 12 and suitable for the type of building and occupancy.

(2) For pendants, flexible cord suitable for the purpose and approved for hard usage shall be used.

(3) For connection of portable lamps, portable

motors, or other portable utilization equipment, flexible cord of the hard usage type shall be used.

20-108 Sealing

(1) Approved seals shall be installed as required by Section 18, and the requirements of Rule 18-154 (3)(b) shall include horizontal and vertical boundaries.

(2) Raceways embedded in a masonry floor or buried beneath a floor shall be considered to be within the hazardous area above the floor if any connections or extensions lead into or through such area.

20-110 Equipment Above Hazardous Areas

(1) Fixed equipment which is less than 3.6 metres above the floor level and that may produce arcs, sparks, or particles of hot metal such as cutouts, switches, charging panels, generators, motors or other equipment (excluding receptacles, lamps and lampholders) having make-and-break or sliding contacts, shall be of the totally enclosed type or so constructed as to prevent escape of sparks or hot metal particles.

(2) Lamps and lampholders for fixed lighting that are located over lanes through which vehicles are commonly driven or which may otherwise be exposed to physical damage, shall be located not less than 3.6 metres above floor level unless of totally enclosed type or so constructed as to prevent escape of sparks or hot metal particles.

(3) Portable lamps shall comply with the following:

(a) They shall be of the totally enclosed gasketed type, equipped with handle, lampholder, hook and substantial guard attached to the lampholder or handle, and all exterior surfaces which may come in contact with battery terminals, wiring terminals or other objects shall be of non-conducting material or shall be effectively protected with an insulating jacket;

(b) The lampholders shall be of the unswitched type; and

(c) They shall not be provided with receptacles for attachment plugs.

20-112 Battery Charging Equipment. Battery chargers and their control equipment, and batteries being charged shall not be located within the hazardous areas classified in Rule 20-102.

20-114 Electric Vehicle Charging

(1) Flexible cords used for charging shall be approved for the type of service, including extra hard usage.

(2) Connectors shall have a rating not less than the ampacity of the cord and in no case less than 50 amperes.

(3) Connectors shall be so designed and installed that they will break apart readily at any position of the charging cable, and live parts shall be guarded from accidental contact.

(4) No connector shall be located within the hazardous area defined in Rule 20-102.

(5) Where plugs are provided for direct connection to vehicles, the point of connection shall not be within a hazardous area as defined in Rule 20-102.

(6) Where a cord is suspended from overhead, it shall be so arranged that the lowest point of sag is at least 150 millimetres above the floor.

(7) Where the vehicle is equipped with a plug which will readily pull apart, and where an automatic arrangement is provided to pull both cord and plug beyond the range of mechanical damage, no additional connector is required in the cable or outlet.

Residential Storage Garages

20-200 Scope. Rules 20-200 to 20-206 apply to a building or part of a building in which not more than three vehicles of the types described in Rule 20-100 are, or may be, stored, but which will not normally be used for service or repair operations on stored vehicles.

20-202 Non-Hazardous Location. Where the lowest floor is at or above adjacent grade or driveway level, and where there is at least one outside door at or below floor level, the garage area shall not be classed as a hazardous location.

20-204 Hazardous Location. Where the lowest floor is below adjacent grade or driveway level, the following shall apply:

- (a) The entire area of the garage or of any enclosed space which includes the garage shall be classified as a Class I, Division 2 location up to a level 50 millimetres above the garage floor; and
- (b) Adjacent areas in which hazardous vapours or gases are not likely to be released shall not be classed as hazardous provided the floors of the adjacent area are elevated at least 50 millimetres above the garage floor or are separated therefrom by tight curbs or partitions at least 50 millimetres high.

20-206 Wiring

(1) Wiring above the hazardous locations shall conform to Section 12.

(2) Wiring in the hazardous locations shall conform to Section 18.

Bulk Storage Plants

20-300 Scope. Rules 20-300 to 20-312 apply to locations where gasoline or other similar volatile flammable liquids are stored in tanks having an aggregate capacity of one carload or more, and from which such products are distributed (usually by tank truck).

20-302 Hazardous Areas

(1) Areas containing pumps, bleeders, withdrawal fittings, meters and similar devices which are located

in pipe lines handling flammable liquids under pressure shall be classified and comply with the following:

(a) Ventilated indoor areas shall be considered as Class I, Division 2 locations within a 1.5 metre distance extending in all directions from the exterior surface of such devices as well as 7.5 metres horizontally from any surface of these devices and extending upwards to 900 millimetres above floor or grade level, provided that:

- (i) Design of the ventilation systems takes into account the relatively high specific gravity of the vapours;
- (ii) Where openings are used in outside walls they are of adequate size and located at floor level unobstructed except by louvres or coarse screens; and
- (iii) Where natural ventilation is inadequate, mechanical ventilation is provided;

(b) Indoor areas not ventilated in accordance with Subrule (1)(a) shall be considered Class I, Division 1 locations within a 1.5 metre distance extending in all directions from the exterior surface of such devices as well as 7.5 metres horizontally from any surface of the device and extending upward 900 millimetres above floor or grade level;

(c) Outdoor areas shall be considered as Class I, Division 2 locations within a 900 millimetre distance extending in all directions from the exterior surfaces of such devices as well as up to 450 millimetres above grade level within 3 metres horizontally from any surface of the devices.

(2) Areas where flammable liquids are transferred shall be classified as follows:

(a) In outdoor areas or where positive and reliable mechanical ventilation is provided in indoor areas in which flammable liquids are transferred to individual containers, such areas shall be considered as a Class I, Division 1 location within 900 millimetres of the vent or fill opening extending in all directions and a Class I, Division 2 location within the area extending between a 900 millimetre and 1.5 metre radius from the vent or fill opening extending in all directions and including the area within a horizontal radius of 3 millimetres from the vent or fill opening and extending to a height of 450 millimetres above floor or grade levels; or

(b) The area extending between a 900 millimetre and 1.5 metre radius from the dome when flammable liquids are transferred to individual containers, such areas shall be considered to be a Class I, Division 1 location.

(3) Areas in outside locations where loading and

unloading of tank vehicles and tank cars takes place shall be classified as follows:

- (a) The area extending 900 millimetres in all directions from the dome when loading through an open dome or from the vent when loading through a closed dome with atmospheric venting shall be considered a Class I, Division 1 location;
- (b) The area extending between a 900 millimetre and 1.5 metre radius from the dome when loading through an open dome or from the vent when loading through a closed dome with atmospheric venting shall be considered a Class I, Division 2 location;
- (c) The area extending within 900 millimetres in all directions from a fixed connection used in bottom loading or unloading, loading through a closed dome with atmospheric venting or loading through a closed dome with a vapour recovery system shall be considered a Class I, Division 2 location except that in the case of bottom loading or unloading this classification shall also be applied to the area within a 3 metre radius from point of connection and extending 450 millimetres above grade.
- (4) Areas within the vicinity of above ground tanks shall be classified as follows:
 - (a) The area above the roof and within the shell of a floating roof type tank shall be considered a Class I, Division 1 location;
 - (b) For all types of above ground tanks:
 - (i) The area within 3 metres from the shell, ends and roof of other than a floating roof shall be considered a Class I, Division 2 location; and
 - (ii) Where dikes are provided the area inside the dike and extending upward to the top of dike shall be considered to be a Class I, Division 2 location;
 - (c) The area within 1.5 metres of a vent opening and extending in all directions shall be considered a Class I, Division 1 location; and
 - (d) The area between 1.5 metres and 3 metres of a vent opening and extending in all directions shall be considered a Class I, Division 2 location.
- (5) Pits and depressions shall be classified as follows:
 - (a) Any pit or depression, any part of which lies within a Division 1 or Division 2 location unless provided with positive and reliable mechanical ventilation shall be considered a Class I, Division 1 location;

- (b) Any such areas when provided with positive and reliable mechanical ventilation shall be considered a Class I, Division 2 location; or
- (c) Any pit or depression within a Division 1 or Division 2 location as defined herein, but which contains piping, valves, or fittings shall be considered a Class I, Division 2 location.

(6) Garages in which tank vehicles are stored or repaired shall be considered to be a Class I, Division 2 location up to 450 millimetres above floor or grade level unless conditions warrant more severe classification or a greater extent of the hazardous area.

(7) Buildings such as office buildings, boiler rooms, and other similar premises, which are outside the limits of hazardous areas as defined herein, and are not used for the handling or storage of volatile flammable liquids or containers for such liquids, shall not be considered to be hazardous locations.

20-304 Wiring and Equipment in Hazardous Areas. All electrical wiring and equipment in hazardous areas defined in Rule 20-302 shall conform to the requirements of Section 18.

20-306 Wiring and Equipment Above Hazardous Areas

(1) Wiring installed above a hazardous location shall conform to the requirements of Section 12 and be suitable for the type of building and the occupancy.

(2) Fixed equipment which may produce arcs, sparks, or particles of hot metal, such as lamps and lampholders, cutouts, switches, receptacles, motors, or other equipment having make and break or sliding contacts, shall be of the totally enclosed type or so constructed as to prevent the escape of sparks or hot metal particles.

(3) Portable lamps or utilization equipment and the flexible cords supplying them, shall conform to the requirements of Section 18 for the class of location above which they are connected or used.

20-308 Sealing

(1) Approved seals shall be installed in accordance with Section 18 and shall be applied to horizontal as well as vertical boundaries of the defined hazardous locations.

(2) Buried raceways under defined hazardous areas shall be considered to be within such areas.

20-310 Gasoline Dispensing. Where gasoline dispensing is carried on in conjunction with bulk station operations, the applicable provisions of Rules 20-002 to 20-014 inclusive shall apply.

20-312 Bonding. All non-current-carrying metal parts of equipment and raceways shall be bonded to ground in accordance with Section 10.

Finishing Processes

20-400 Scope. Rules 20-400 to 20-412 apply where paints, lacquers or other flammable finishes are regularly or frequently applied by spraying, dipping,

brushing or by other means, and where volatile flammable solvents or thinners are used or where readily ignitable deposits or residues from such paints, lacquers or finishes may occur.

20-402 Hazardous Areas

(1) The following areas shall be considered to be Class I, Division 1 locations:

- (a) The interiors of spray booths and their exhaust ducts;
- (b) All space within 6 metres horizontally in any direction, extending to a height of 900 millimetres above the goods to be painted, from spraying operations more extensive than touch up spraying and not conducted within the spray booth;
- (c) All space within 6 metres horizontally in any direction from dip tanks and their drain boards, the space extending to a height of 900 millimetres above the dip tank and drain board;
- (d) All other spaces where hazardous concentrations of flammable vapours are likely to occur.

(2) For spraying operations within an open face spray booth, the extent of the Class I, Division 2 hazardous location shall be not less than the following:

- (a) Where the ventilation system is interlocked with the spraying equipment so as to make the spraying equipment inoperable when the ventilation system is not in operation, the space shall extend at least 1.5 metres from the open face of the spray booth, and as otherwise shown in Diagram 4;
- (b) Where the ventilation system is not interlocked with the spraying equipment so as to make the spraying equipment inoperable when the ventilation system is not in operation, the space shall extend at least 3 metres from the open face or front of the spray booth, and as otherwise shown in Diagram 5.

(3) All space within the room but beyond the limits for Class I, Division 1 as classified in Subrule (1) for extensive open spraying, for dip tanks and drain boards, and for other hazardous operations, shall be considered to be Class I, Division 2 locations.

(4) Adjacent areas which are cut off from the defined hazardous area by tight partitions without communicating openings, and within which hazardous vapours are not likely to be released, are classed as non-hazardous.

(5) Drying and baking areas provided with positive mechanical ventilation to prevent formation of flammable concentrations of vapours and provided with effective interlocks to de-energize all electrical equipment not approved for Class I locations, in case the

ventilating equipment is inoperative, may be classed as non-hazardous.

(6) Notwithstanding the requirements of Subrule (1)(b) where adequate mechanical ventilation with effective interlocks is provided at floor level:

- (a) The space within 900 millimetres horizontally in any direction from the goods to be painted and such space extending to a height of 900 millimetres above the goods to be painted shall be considered to be a Class I, Division 1 location; and
- (b) All space between a 900 millimetre and a 1.5 metre distance above the goods to be painted and all space within 6 metres horizontally in any direction beyond the limits for Class I, Division 1 location shall be considered to be Class I, Division 2 location.

(7) Notwithstanding Subrules 20-402 (2) (a) and (b), where a full length sheet metal baffle of not less than No. 18 MSG is installed above the front face of an open face spray booth to a height of 900 millimetres vertically or to the ceiling, whichever is less, and extending back on the side edges for a distance of 1.5 metres, the space behind this baffle shall be considered an ordinary location.

20-404 Wiring and Equipment in Hazardous Areas

(1) All electrical wiring and equipment within the hazardous areas as defined in Rule 20-402 shall conform to the requirements of Section 18.

(2) Unless approved for both readily ignitable deposits and the flammable vapour location, no electrical equipment shall be installed or used where it may be subject to a hazardous accumulation of readily ignitable deposits or residue.

(3) Illumination of readily ignitable areas through panels of glass or other transparent or translucent material is permissible only where:

- (a) Fixed lighting units are used as the source of illumination;
- (b) The panel is noncombustible and effectively isolates the hazardous area from the area in which the lighting unit is located;
- (c) The lighting unit is approved for its specific location;
- (d) The panel is of a material or is so protected that breakage will be unlikely; and
- (e) The arrangement is such that normal accumulations of hazardous residue on the surface of the panel will not be raised to a dangerous temperature by radiation or conduction from the source of illumination.

(4) Portable electric lamps or other utilization equipment shall:

- (a) Not be used within a hazardous area during operation of the finishing process;
- (b) Be of a type approved for Class I locations when used during cleaning or repairing operations.

(5) Notwithstanding Subrule (4):

- (a) Totally-enclosed and gasketed lighting may be used on the ceiling of a spray room where adequate and positive mechanical ventilation is provided; and
- (b) Infrared paint drying units may be utilized in a spray room if the controls are interlocked with those of the spraying equipment so that both operations cannot be performed simultaneously, and if portable, the paint drying unit shall not be brought into the spray room until spraying operations have ceased.

20-406 Fixed Electrostatic Equipment

(1) Electrostatic spraying and detearing equipment shall be of an approved type and conform to the following:

- (a) No transformers, power packs, control apparatus, or other electrical portion of the equipment except high voltage grids and their connections shall be installed in any of the hazardous areas defined in Rule 20-402, unless of a type approved for the locations;
- (b) High voltage grids or electrodes shall be located in suitable noncombustible booths or enclosures provided with adequate mechanical ventilation, shall be rigidly supported and of substantial construction, and shall be effectively insulated from ground by means of nonporous, noncombustible insulators;
- (c) High voltage leads shall be effectively and permanently supported on suitable insulators, shall be effectively guarded against accidental contact or grounding and shall be provided with automatic means for discharging any residual charge to ground when the supply voltage is interrupted;
- (d) Where goods are being processed:
 - (i) They shall be supported on conveyors in such a manner that minimum clearance between goods and high voltage grids or conductors cannot be less than twice the sparking distance; and
 - (ii) A conspicuous sign indicating the sparking distance shall be permanently posted near the equipment;
- (e) Approved automatic controls shall be provided which will operate without time delay to disconnect the power supply and to signal the operator in case of:
 - (i) Stoppage of ventilating fans;
 - (ii) Failure of ventilating equipment;
 - (iii) Stoppage of the conveyor carrying goods through the high voltage field;

(iv) Occurrence of a ground or of an imminent ground at any point on the high voltage system; or

(v) Reduction of clearance below that specified in Paragraph (d); and

(f) Adequate fencing, railings or guards which are electrically conducting and effectively bonded to ground shall be provided for safe isolation of the process; and signs shall be permanently posted designating the process zone as dangerous because of high voltage.

(2) Transformers and capacitors forming a part of fixed spraying or detearing equipment shall not be required to conform to the requirements of Section 26 of this Code.

20-408 Electrostatic Hand Spraying Equipment. Electrostatic hand spray apparatus and devices used therewith shall be of approved types and shall conform to the following:

- (a) The high voltage circuits shall be intrinsically safe and not produce a spark of sufficient intensity to ignite any vapour-air mixtures, nor result in appreciable shock hazard upon coming in contact with a grounded object;
- (b) The electrostatically-charged exposed elements of the hand gun shall be capable of being energized only by a switch which also controls the paint supply;
- (c) Transformers, power packs, control apparatus, and all other electrical portions of the equipment, with the exception of the hand gun itself and its connections to the power supply, shall be located outside the hazardous area;
- (d) The handle of the spray gun shall be bonded to ground by a metallic connection and be so constructed that the operator in normal operating position is in intimate electrical contact with the handle in order to prevent build-up of a static charge on the operator's body;
- (e) All electrically conductive objects in the spraying area shall be bonded to ground and the equipment shall carry a prominent permanently-installed warning regarding the necessity for this bonding feature;
- (f) Precautions shall be taken to ensure that objects being painted are maintained in metallic contact with the conveyor or other grounded support, and shall include the following:
 - (i) Hooks shall be regularly cleaned;
 - (ii) Areas of contact shall be sharp points or knife edges; and
 - (iii) Points of support of the object shall be concealed from random spray where feasible

and where the objects being sprayed are supported from a conveyor, the point of attachment to the conveyor shall be so located as not to collect spray material during normal operation; and

- (g) The spraying operation shall take place within a spray area which is adequately ventilated to remove solvent vapours released from the operation and the electrical equipment shall be so interlocked with the ventilation of the spraying area that the equipment cannot be operated unless the ventilation system is in operation.

20-410 Wiring and Equipment Above Hazardous Areas

(1) All fixed wiring above hazardous areas shall conform to Section 12.

(2) Equipment which may produce arcs, sparks, or particles of hot metal, such as lamps and lampholders for fixed lighting, cutouts, switches, receptacles, motors or other equipment having make and break or sliding contacts, where installed above a hazardous area or above an area where freshly finished goods are handled, shall be of the totally enclosed type or so constructed as to prevent the escape of sparks or hot metal particles.

20-412 Bonding. All metallic raceways and all non-current-carrying metallic portions of fixed or portable equipment, regardless of voltage, shall be bonded to ground in accordance with Section 10.

Aircraft Hangars

20-500 Scope. Rules 20-500 to 20-522 apply to locations used for storage or servicing of aircraft in which gasoline, jet fuels, or other volatile flammable liquids, or flammable gases, are used but shall not include those locations used exclusively for aircraft which have never contained such liquids or gases, or which have been drained and properly purged.

20-502 Hazardous Areas

(1) Any pit or depression below the level of the hangar floor shall be considered to be a Class I, Division 1 location that shall extend up to the floor level.

(2) The entire area of the hangar including any adjacent and communicating areas not suitably cut off from the hangar shall be considered to be a Class 1, Division 2 location up to a level 450 millimetres above the floor.

(3) The area within 1.5 metres horizontally from aircraft power plants, aircraft fuel tanks or aircraft structure containing fuel shall be considered to be a Class I, Division 2 location that shall extend upward from the floor to a level 1.5 metres above the upper surface of wings and of engine enclosures.

(4) Adjacent areas in which hazardous vapours are not likely to be released such as stock rooms, electrical control rooms, and other similar locations, may be classed as non-hazardous when adequately ventilated

and when effectively cut off from the hangar itself in accordance with Rule 18-060.

20-504 Wiring and Equipment in Hazardous Areas

(1) All fixed and portable wiring and equipment which is or may be installed or operated within any of the locations defined in Rule 20-502 shall conform to the requirements of Section 18.

(2) All wiring installed in or under the hangar floor shall conform to the requirements for Class 1 Division 1 locations.

(3) Wiring systems installed in pits, or other spaces in or under the hanger floor shall be provided with adequate drainage and shall not be placed within the same compartment with any other service except piped compressed air.

(4) Attachment plugs and receptacles in hazardous locations shall be explosionproof, or shall be so designed that they cannot be energized while the connections are being made or broken.

20-506 Wiring Not Within Hazardous Areas

(1) All fixed wiring in a hangar not within a hazardous area as defined in Rule 20-502 shall be installed in metal raceways or shall be cable of the armoured type, or Type MI cable or aluminum sheathed cable, except that wiring in a non-hazardous location as set out in Rule 20-502(4) may be of any type recognized in Section 12 as suitable for the type of building and the occupancy.

(2) For pendants, flexible cord approved for hard usage and containing a separate bonding conductor shall be used.

(3) For portable utilization equipment and lamps, flexible cord approved for hard usage and containing a separate bonding conductor shall be used.

(4) Suitable means shall be provided for maintaining continuity and adequacy of the bonding between the fixed wiring system and the non-current-carrying metallic portions of pendant fixtures, portable lamps, and other portable utilization equipment.

20-508 Equipment Not Within Hazardous Areas

(1) In locations other than those described in Rule 20-502, equipment that is less than 3 metres above wings and engine enclosures of aircraft and which may produce arcs, sparks or particles of hot metal, such as lamps and lampholders for fixed lighting, cutouts, switches, receptacles, charging panels, generators, motors or other equipment having make and break or sliding contacts, shall be of totally enclosed type or so constructed as to prevent escape of sparks or hot metal particles, except that equipment in areas described in Rule 20-502 (4) may be of general purpose type.

(2) Lampholders of metal shell, fibre lined types shall not be used for fixed lighting.

(3) Portable lamps which are, or may be, used within a hangar shall be approved for Class I locations.

(4) Portable utilization equipment which is, or may be, used within a hangar shall be of a type suitable for use in Class I, Division 2 locations.

20-510 Stanchions, Rostrums, and Docks

(1) Electric wiring, outlets and equipment including lamps, on or attached to, stanchions, rostrums, or docks which are located, or likely to be located, in a hazardous area as defined in Rule 20-502 (3) shall conform to the requirements for Class I, Division 2 locations.

(2) Where stanchions, rostrums, and docks are not located, or are not likely to be located, in a hazardous area as defined in Rule 20-502 (3) wiring and equipment shall conform to Rules 20-506 and 20-508, except that:

- (a) Receptacles and attachment plugs shall be of the locking type which will not break apart readily; and
- (b) Wiring and equipment, not more than 450 millimetres above the floor in any position, shall conform to Subrule (1).

(3) Mobile stanchions with electrical equipment conforming to Subrule (2) shall carry at least one permanently affixed warning sign to read "WARNING—KEEP 1.5 METRES CLEAR OF AIRCRAFT ENGINES AND FUEL TANK AREAS".

20-512 Sealing

(1) Approved seals shall be installed in accordance with Section 18 and shall apply to horizontal as well as to vertical boundaries of hazardous areas.

(2) Raceways embedded in a masonry floor or buried beneath a floor shall be considered to be within the hazardous area above the floor when any connections or extensions lead into or through the hazardous area.

20-514 Aircraft Electrical Systems. Aircraft electrical systems shall be de-energized when the aircraft is stored in a hangar, and whenever possible, while the aircraft is undergoing maintenance.

20-516 Aircraft Battery-Charging and Equipment

(1) Aircraft batteries shall not be charged when installed in an aircraft located inside, or partially inside, a hangar.

(2) Battery chargers and their control equipment shall not be located or operated within any of the hazardous areas defined in Rule 20-502 but may be located or operated in a separate building or in an area complying with Rule 20-502 (4).

(3) Mobile chargers shall carry at least one permanently affixed warning sign to read: "WARNING—KEEP 1.5 METRES CLEAR OF AIRCRAFT ENGINES AND FUEL TANK AREAS".

(4) Tables, racks, trays, and wiring shall not be located within a hazardous area, and shall conform to the provisions of Section 26 pertaining to Storage Batteries.

20-518 External Power Sources for Energizing Aircraft

(1) Aircraft energizers shall be so designed and mounted that all electrical equipment and fixed wiring will be at least 450 millimetres above floor level and shall not be operated in a hazardous area as defined in Rule 20-502 (3).

(2) Mobile energizers shall carry at least one permanently affixed sign to read: "WARNING—KEEP 1.5 METRES CLEAR OF AIRCRAFT ENGINES AND FUEL TANK AREAS".

(3) Aircraft energizers shall be equipped with polarized external power plugs and with automatic controls to isolate the ground power unit electrically from the aircraft in case excessive voltage is generated by the ground power unit.

(4) Flexible cords for aircraft energizers and ground support equipment shall be of the extra hard usage type and shall include a bonding conductor.

20-520 Mobile Servicing Equipment With Electrical Components

(1) Mobile servicing equipment such as vacuum cleaners, air compressors, air movers and other similar equipment having electrical wiring and equipment not suitable for Class I, Division 2 locations shall:

- (a) Be so designed and mounted that all such wiring and equipment will be at least 450 millimetres above the floor;
- (b) Not be operated within the hazardous areas defined in Rule 20-502 (3); and
- (c) Carry at least one permanently affixed warning sign to read: "WARNING—KEEP 1.5 METRES CLEAR OF AIRCRAFT ENGINES AND FUEL TANK AREAS".

(2) Flexible cords for mobile equipment shall be approved for extra hard usage and shall include a bonding conductor.

(3) Attachment plugs and receptacles shall be approved for the location in which they are installed, and shall provide for connection of the bonding conductor to the raceway system.

(4) Equipment shall not be operated in areas where maintenance operations likely to release hazardous vapours are in progress, unless the equipment is at least suitable for use in a Class I, Division 2 location.

20-522 Bonding. All metallic raceways, and all non-current-carrying metallic portions of fixed or portable equipment, regardless of voltage, shall be bonded to ground in accordance with Section 10.

**SECTION 22—LOCATIONS IN WHICH
CORROSIVE LIQUIDS OR VAPOURS
OR EXCESSIVE MOISTURE ARE LIKELY
TO BE PRESENT**

General

22-000 Scope. This Section applies to electrical equipment and installations in locations in which corrosive liquids, or vapours or excessive moisture are likely to be present, and is supplementary to, or amendatory of, the general requirements of this Code.

22-002 Category Definitions. Locations covered in this Section shall be classified as follows:

- (a) "Category 1", meaning that the location is one in which moisture in the form of vapour or liquid is present in quantities which are liable to interfere with the normal operation of electrical equipment, whether the moisture is caused by condensation, or the dripping or splashing of liquid, or otherwise; and
- (b) "Category 2", meaning that the location is one in which corrosive liquids or vapours are likely to be present in quantities which are likely to interfere with the normal operation of electrical equipment.

22-004 Application of Category Definitions. Where the expressions "Category 1" or "Category 2" do not appear in any Rule in this Section, the Rule shall be applicable to both categories.

Equipment

22-100 Essential Equipment Only

(1) Only such electrical equipment as is essential for the processes being carried on therein shall be installed in Category 1 and Category 2 locations.

(2) Service equipment, motors, panelboards, switchboards and other electrical equipment shall, where practicable, be installed in rooms or sections of the building which are not Category 1 or Category 2 locations.

22-102 Type of Construction

(1) Where the electrical equipment is, or is likely to be, partially or wholly submerged, it shall be of a submersible type of construction.

(2) Where the electrical equipment is, or is likely to be, subjected to direct streams of liquid under pressure, it shall be of a water-tight type of construction.

(3) Where the electrical equipment is, or is likely to be, exposed to corrosive vapours, it shall be of a corrosion-resistant type of construction.

(4) Where the electrical equipment is, or is likely to be, exposed to splashing of water, it shall be of a weatherproof or water-tight type of construction.

(5) Where the electrical equipment is, or is likely to be, exposed only to the falling or condensing of moisture, it shall be of a dripproof, weatherproof or water-tight type of construction.

(6) Where a protective coating on electrical equipment is, or may be, exposed to corrosive liquids or vapour, the coating shall be suitable for the corrosive condition.

22-104 Pendent Lampholders

(1) Pendent lampholders shall be of the weatherproof type and hung from insulated stranded copper conductors of not less than No. 14 AWG.

(2) Where the pendent conductors exceed 900 millimetres in length, they shall be twisted together.

22-106 Fixtures

(1) Every lighting fixture in a Category 1 location shall be constructed so that water cannot enter or accumulate within the fixture.

(2) Every lighting fixture in a Category 2 location shall be totally enclosed, gasketed, and shall be of corrosion-resistant type of construction.

22-108 Receptacles, Plugs and Cords for Portable Equipment

(1) Every receptacle and attachment plug for portable equipment shall be:

- (a) Of the weatherproof type; and
- (b) Provided with approved grounding terminals and conductors properly connected to ground.

(2) Flexible cords or power supply cables for portable equipment shall contain a grounding conductor and be of the outdoor type suitable for hard usage as indicated in Table 11.

Wiring

22-200 Wiring Method in Category 1 Locations

(1) Where conductors are exposed to moisture in a Category 1 location they shall:

- (a) If used in exposed wiring, be of types specified in Table 19:
 - (i) For exposed wiring in wet locations; or
 - (ii) For exposed wiring where exposed to the weather, provided that they are located more than 1.5 metres horizontally or 2.5 metres vertically from floors, decks, balconies, or stairs; and

(b) If used in conduit be of types specified in Table 19 for use in raceways for wet locations.

(2) Nonmetallic sheathed cable of the NMW or NMWU type may be used in a Category 1 location.

(3) Armoured cable and aluminum sheathed cable installed in a Category 1 location shall be of the type listed in Table 19 for direct earth burial.

(4) Split knobs or cleats shall not be used in a Category 1 location.

(5) Mineral-insulated cable may be used in a Category 1 location but, if the cable is secured to walls, it shall be spaced at least 6 millimetres from the wall at each point of support.

(6) Aluminum conductors shall not be used in Category 1 locations unless the termination or joint is adequately sealed against ingress of moisture.

22-202 Wiring Method in Category 2 Locations

(1) Where conductors are exposed to corrosive vapours in a Category 2 location, they shall be:

- (a) If used in exposed wiring, be a type with corrosion resistant protection and be located more than 1.5 metres horizontally or 2.5 metres vertically from floors, decks, balconies or stairs; and
- (b) If used in conduit, be a type with corrosion resistant protection.

(2) Non-metallic sheathed cable of the NMW or NMWU type may be used in Category 2 location.

(3) Surface metal raceways, underfloor raceways, bare conductors, armoured cable except where permitted in Table 19 for exposure to corrosive action, wireways, busways, and split knobs shall not be used in Category 2 locations.

(4) Mineral-insulated cable may be used in a Category 2 location if the corrosive action is not of such a nature as to cause deterioration of the outer sheath.

(5) Aluminum-sheathed cable may be used in a Category 2 location provided it has suitable corrosion-resistant protection where necessary.

(6) Aluminum conductors shall not be used in Category 2 locations unless the termination or joint is adequately sealed against ingress of corrosive liquids or vapours.

22-204 Wiring Methods in Buildings Housing Livestock and Poultry

(1) Wiring in buildings housing livestock and poultry shall be of the type listed in Table 19 for wet locations.

(2) Where non-metallic sheathed cable is used in buildings housing livestock and poultry, it shall be of the NMW or NMWU type.

(3) Notwithstanding subrules (1) and (2) wiring listed in Table 19 for damp locations shall be permitted in buildings housing livestock or poultry when provided with adequate ventilation.

(4) Aluminum conductors shall not be used in buildings housing livestock or poultry.

22-206 Rinks

(1) Conductors run as open wiring in accordance

with Rules 12-200 to 12-224 may be used for the lighting of curling or skating rink areas which are subject to condensation provided that the conductors are suitable for wet locations as indicated by Table 19.

(2) The wiring method used in waiting rooms and other portions of rinks shall be in accordance with Section 12 based on the area and moisture conditions involved.

(3) Rink areas provided with positive mechanical ventilation capable of changing the air at least 3 times per hour may be regarded as dry locations.

Drainage, Sealing and Exclusion of Moisture

22-300 Drip Loops. Where exposed conductors or non-metallic sheathed cables enter into or issue from a Category 1 or Category 2 location, the conductors shall pass through the wall of the location in an upward direction from the Category 1 or Category 2 location and in the case of exposed conductors, shall be in non-combustible, non-absorptive insulating tubes.

22-302 Drainage and Sealing

(1) Where conduit is used, it shall be:

- (a) Arranged so as to drain at frequent intervals to suitable locations;
- (b) Equipped with approved fittings which permit the moisture to drain out of the system; and
- (c) Installed so as to give 12 millimetres clearance from the supporting surface when either conduit or supporting surface is metallic.

(2) Where a conduit or aluminum-sheathed cable enters a cooler atmosphere from a warmer atmosphere, it shall be sealed off so as to prevent breathing, and subsequent condensation, and in such a manner that condensate will not be trapped at the seal.

(3) Every joint in a conduit in a Category 1 location shall be watertight.

(4) Every cabinet and fitting in a Category 1 location shall be:

- (a) Of splash proof or drip proof construction;
- (b) Placed so as to prevent moisture or water from entering and accumulating within the cabinet or fitting; and
- (c) Mounted as to give at least 12 millimetres clearance from the supporting surface when either enclosure or supporting surface is metallic.

Circuit Control

22-400 Circuit Control. Every circuit in a Category 1 or Category 2 location shall, where practicable, be arranged so that the current-carrying conductors may be entirely cut off from the

supply of electrical power or energy at a convenient point outside the location.

Materials

22-500 Corrosion Resistant Material. All conduits, metal enclosures and fittings including every bolt and screw used to secure electrical equipment shall be protected by or be of acceptable corrosion-resistant material judged suitable for the condition or approved for the specific corrosive environment.

Grounding

22-600 Exposed Metal Parts. Every non-current-carrying metal part of all fixed or portable electrical equipment, including appliances, fixtures, cabinets, and metal enclosures, shall be grounded in accordance with Section 10.

SECTION 24—PATIENT CARE AND OTHER AREAS IN HOSPITALS

24-000 Scope

(1) This Section applies to the installation in hospitals of:

- (a) Electrical wiring and equipment within patient care areas;
- (b) Those portions of the electrical systems designated as essential electrical systems.

(2) This Section is supplementary to, or amendatory of, the general requirements of this Code.

24-002 Special Terminology. In this Section, the following definitions apply:

- (a) "Anaesthetizing location" means any area of a health care facility where the induction and maintenance of general anaesthesia are routinely carried out in the course of examination or treatment of patients;
- (b) "Applied part" means the part or parts of medical electrical equipment including the patient leads which come intentionally into contact with the patient to be examined or treated;
- (c) "Basic care area" means a patient care area where body contact between a patient and medical electrical equipment is neither frequent nor usual;
- (d) "Body contact" means an intentional contact at the skin surface or internally, but not directly to the heart;
- (e) "Cardiac contact" means an intentional contact directly to the heart by means of an invasive procedure;
- (f) "Casual contact" means contact by voluntary action with a device that has no applied part

and is not intended to be connected to a patient;

- (g) "Conditional branch" means that portion of an essential electrical system in which circuits require power restoration by emergency service within 24 hours depending on special circumstances such as environmental or climatic conditions;
- (h) "Critical care area" means a patient care area in which anaesthetics are administered or in which cardiac contact between a patient and medical electrical equipment is frequent or normal;
- (i) "Delayed vital branch" means that portion of an essential electrical system in which the circuits require power restoration within 2 minutes;
- (j) "Emergency power system" means a power system supplied from an emergency supply and connected to feed essential systems;
- (k) "Emergency supply" means one or more in-house generators of electricity intended to be available in the event of a failure of all other supplies and capable of supplying all the essential loads;
- (l) "Essential electrical system" means an electrical system which has the capability of restoring and sustaining a supply of electrical energy to specified loads in the event of a loss of the normal supply of energy;
- (m) "Hazard index" means, for a given set of conditions in an isolated power system, the maximum total current, (in milliamperes) composed of resistive and capacitive leakage and fault currents, that would flow through a connection of negligible impedance between either isolated conductor and ground;
- (n) "Hospital" means an institution that is legally designated as a hospital where patients are accommodated on the basis of medical need and are provided with continuing medical care and supporting diagnostic and therapeutic services;
- (o) "Intermediate care area" means a patient care area in which there is normally or frequently an electrically conductive pathway between electromedical equipment and a patient, but not directly to the heart;
- (p) "Isolated system" means an electrical distribution system in which no circuit conductor is bonded directly to ground;
- (q) "Line isolation monitor" means a device which measures and displays the total hazard index of an isolated electrical system, and provides warning when the index reaches a preset limit;

- (r) "Normal supply" means the main electrical supply into a building or a building complex, and may consist of one or more consumer services capable of supplying all loads in the building or building complex;
- (s) "Patient" means a person receiving medical investigation or treatment;
- (t) "Patient care area" means an area intended primarily for the provision of diagnosis, therapy, or care;
- (u) "Patient care location" means a zone in a patient care area which has been pre-selected for the accommodation of a patient bed, table, or other supporting mechanism, and for the accommodation of equipment involved in patient treatment, and which includes the space within the room 1.5 metres beyond the perimeter of the bed in its normal location and to within 2.3 metres of the floor;
- (v) "Patient care location bonding point" means a common bus at a patient care location, that is bonded to ground, and that serves as a common point to which equipment and other bonding connections can be made by means of a group of jacks;
- (w) "Permanently connected equipment" means equipment that is electrically connected to the supply by means of connectors that can be accessed, loosened or tightened only with the aid of a tool;
- (x) "Total hazard index" means the hazard index of a given isolated system with all appliances, including the line isolation monitor, connected;
- (y) "Vital branch" means that portion of an essential electrical system in which the circuits require power restoration within 10 seconds.

Patient Care Areas

24-100 Rules for Patient Care Areas. Rules 24-102 through 24-114 shall apply to those patient care areas that have been designated as:

- (a) Basic care areas;
- (b) Intermediate care areas; or
- (c) Critical care areas.

24-102 Circuits in Basic Care Areas

(1) The branch circuits supplying receptacles and permanently connected equipment in basic care areas shall be supplied from a grounded distribution system.

(2) Branch circuit conductors shall be copper and shall be sized not smaller than No. 12 AWG.

(3) A branch circuit which supplies receptacles or permanently connected medical electrical equipment within a patient care location shall only supply loads within such locations.

(4) All branch circuits for a patient care location shall be supplied from a single panelboard, except branch circuits intended to be part of an essential electrical system, which shall be permitted to be supplied from two panelboards, one of which is part of the essential system.

(5) Branch circuits shall be supplied at not more than 150 volts-to-ground, unless designated for special purpose use, such as to supply mobile x-ray, laser and similar equipment, or for permanently connected equipment.

24-104 Bonding to Ground in Basic Care Areas

(1) Bonding conductors shall be insulated unless they are:

- (a) installed in nonmetallic conduit, or
- (b) incorporated in a cable assembly in such a manner that contact between any metal shield or armour and a bare bonding conductor is not possible.

(2) All receptacles and other permanently connected equipment at patient care locations shall be bonded to ground by a copper equipment bonding conductor.

(3) Equipment bonding conductors shall be terminated either at the panelboard supplying the branch circuits to the patient care location from which they originate or on a bonding bus which is bonded by a copper bonding conductor to that panelboard.

(4) Existing construction using metal raceways which does not use a separate bonding conductor shall be permitted to continue in use.

(5) Exposed non-current-carrying metal parts of communication, radio or television equipment, other than telephone sets, at a patient care location, if they could become energized, shall be bonded to ground by:

- (a) Connection to the bonding screw in the communication section of a barriered and ganged metal outlet box, serving a patient care location;
- (b) Connection to an equipment bonding conductor or grounding bus for that patient care location as identified in Subrule (3).

24-106 Receptacles in Basic Care Areas

(1) Receptacles intended for a given patient care location shall be located so as to minimize the likelihood of their inadvertent use for a patient care location for which they are not intended.

(2) Receptacles which are located in areas that are routinely cleansed using liquids which normally splash against the walls, shall be installed not less than 300 millimetres above the floor.

(3) Receptacles located in bathrooms or washrooms within a patient care area shall be:

- (a) Located adjacent to the wash basin;
- (b) Located at least 1 metre outside any bathtub enclosure or shower stall; and
- (c) Protected by a ground fault circuit interrupter of the Class A type.

(4) Receptacles intended for housekeeping equipment and other non-medical loads shall be so identified.

24-108 Circuits in Intermediate Care Areas. The branch circuits supplying receptacles and other permanently connected equipment in intermediate care areas shall be supplied from either an isolated system meeting the requirements of Rule 24-200 or a grounded system meeting the requirements of Rule 24-102 except that:

- (a) All branch circuits, other than those supplying multi-phase equipment, shall be 2-wire circuits; and
- (b) Each patient care location shall be provided with at least one branch circuit.

24-110 Circuits in Critical Care Areas. The branch circuits supplying receptacles and other permanently connected equipment in critical care areas shall be supplied from an isolated system meeting the requirements of Rule 24-200.

24-112. Bonding to Ground in Intermediate and Critical Care Areas

(1) All receptacles and other permanently wired equipment shall be bonded to ground by copper equipment bonding conductors, run with circuit conductors, in accordance with the following:

- (a) Except as specified in Paragraph (b) each 2-wire branch circuit supplying a single phase receptacle at a patient care location shall be provided with a copper equipment bonding conductor;
- (b) Whenever the single-phase receptacles at the patient care location are supplied from two or more 2-wire branch circuits in the same conduit, a single copper equipment bonding conductor is permitted to be shared by the circuits.

(2) Equipment bonding conductors required by Subrules (1) and (4), shall terminate either at the panelboard supplying the branch circuits to the bed location from which they originate or on a bonding

bus which is bonded by a copper bonding conductor to that panelboard.

(3) Each item of 3-phase equipment shall be bonded to ground with a copper equipment bonding conductor, sized in accordance with Table 16, but in no case less than No. 12 AWG, connected independently both at the equipment and at the panelboard.

(4) All exposed non-current-carrying metal parts of fixed or portable electrical equipment at a patient care location, if they could become energized, shall be bonded either to a copper equipment bonding conductor, identified in Subrule (2) or to the bonding bus for that patient care location.

(5) If a patient care location bonding point is provided, it shall be bonded to the panelboard serving the patient care location with which it is associated by either:

- (a) A bonding jumper connecting it to the bonding terminal in an enclosure which accommodates the receptacles for a patient care location; or
- (b) A copper equipment bonding conductor which is installed for that specific purpose.

(6) All bonding conductors required by this rule shall meet the requirements of Subrule 24-104(1).

24-114 Receptacles in Intermediate and Critical Care Areas. Receptacles in intermediate and critical care areas shall conform to Rule 24-106 except that:

- (a) Receptacles intended for a given patient care location shall be located to minimize the risk of their inadvertent use for a patient care location for which they are not intended;
- (b) All 15 ampere and 20 ampere non-locking receptacles shall be Hospital Grade; and
- (c) Receptacles intended for housekeeping purposes are permitted to be other than Hospital Grade.

Isolated Systems

24-200 Rules for Isolated Systems

(1) Rules 24-202 through 24-204 shall apply to isolated systems installed under the provisions of both Rule 24-108 and 24-110.

(2) In a location supplied by an isolated system, branch circuits supplying only fixed lighting fixtures and permanently connected medical electrical equipment are permitted to be supplied by a conventional grounded system provided that wiring for grounded and isolated circuits does not occupy the same raceway.

24-202 Sources of Supply

(1) The means of supply to an isolated system shall be:

- (a) The secondary of one or more transformers having no direct connection between primary and secondary windings plus a grounded metal shield between these two windings;
- (b) A motor-generator set; or
- (c) A suitably isolated, battery-powered inverter supply.

(2) Where more than one single-phase isolated power system serves a single location, the grounding busses of all of these systems shall be bonded together with a copper bonding conductor:

- (a) Having a total impedance not greater than 0.2Ω ; and
- (b) Sized not smaller than that permitted by Table 16.

24-204 Isolated Circuits

(1) Isolated circuits shall:

- (a) Not be deliberately grounded except through the impedance of an approved isolation sensing device (e.g., isolation monitor);
- (b) Be constructed with circuit conductors of one of the following types:
 - (i) RW75 EP;
 - (ii) RW75 XLPE;
 - (iii) RW90 EP; or
 - (iv) RW90 XLPE;
- (c) Have the circuit conductors clearly identified by the colours, brown and orange, or other means unique to the facility;
- (d) Have overcurrent devices that will open all circuit conductors simultaneously.

(2) Any disconnecting means controlling an isolated circuit shall safely and simultaneously disconnect all ungrounded conductors.

(3) Single phase isolated circuits shall operate at voltages (rms) between conductors not exceeding:

- (a) 300 volts for special use receptacles and for permanently connected equipment; and
- (b) 150 volts for other receptacles.

(4) An isolated system shall include approved automatic means (a line isolation monitor), with an indicator located where visible to persons using the system, to monitor the impedance-to-ground of the system, together with any loads connected to it.

(5) At the time of installation the total impedance (capacitive and resistive) between ground and each energized conductor of an isolated system shall exceed 500,000 ohms, without utilization equipment or the line isolation monitor connected.

(6) Where a single-phase isolated system is employed it shall supply:

(a) General-purpose receptacles at:

- (i) A single anaesthetizing location;
- (ii) One or more patient care locations in a single room; or
- (iii) A maximum of two bed locations in separate but adjacent rooms, provided that the alarm indicator clearly identifies the bed locations affected by the fault;

(b) Special purpose receptacles at different anaesthetizing locations or in different rooms, provided that the system is used only for the one purpose.

(7) Where 3-phase isolated system is used, it shall supply:

- (a) Permanently connected equipment at a single anaesthetizing location or a single bed location; or
- (b) special use receptacles at:

- (i) Different anaesthetizing locations, or
- (ii) in different rooms,

provided the system is used for only one purpose.

(8) Each isolated circuit shall be provided with a copper equipment bonding conductor which shall terminate at the bonding bus serving the location and shall comply with Subrule 24-104(1).

Essential Electric Systems

24-300 Rules for Essential Electrical Systems. Rules 24-302 through 24-306 shall apply to those portions of a hospital electrical system in which the interruption of a normal supply of power would jeopardize the effective and safe care of patients, with the object of reducing those hazards that might arise from such an interruption.

24-302 Circuits in Essential Electrical Systems

(1) An essential electrical system shall comprise those circuits that supply loads designated as being essential for the life safety and care of the patient, and the effective operation of the hospital.

(2) An essential electrical system shall comprise at least a vital branch, and may also include a delayed vital branch or a conditional branch, or both.

(3) The wiring of the essential electrical system shall be kept entirely independent of all other wiring and equipment, and shall not enter a fixture, raceway, box or cabinet occupied by other wiring except where necessary in:

- (a) transfer switches; and
- (b) emergency lighting fixtures supplied from two sources.

24-304 Transfer Switches

(1) All transfer switches shall be approved and shall be in compliance with applicable codes or standards under a rule or by-law of the supply authority concerning transfer switches.

(2) Automatic transfer switches used in essential electrical systems shall conform to the requirements of CSA Standard C22.2 No. 178, Automatic Transfer Switches, and in addition, shall:

- (a) Be electrically operated and mechanically held;
- (b) Include means for safe manual operation; and
- (c) Include a by-pass system around the transfer switch.

(3) Manual transfer switches shall conform to the following:

- (a) The switching means shall be mechanically held and the operation shall be direct man-power or by electrical remote manual control utilizing control power from the supply to which the load is being transferred;
- (b) A manual transfer switch which is operated by electrical remote manual control shall include a means for safe manual mechanical operation;
- (c) Reliable mechanical interlocking and, in the case of a switch operated by electrical remote manual control, electrical interlocking to prevent interconnection of the normal and the emergency supplies of power shall be inherent in the design of a manual transfer switch; and
- (d) A manual transfer switch shall include a readily visible mechanical indicator showing the switch position.

(4) The vital and delayed vital branches shall be connected to the emergency power by means of one or more automatic transfer switches.

(5) The conditional branch shall be connected to the emergency power supply by either a manual or an automatic transfer switch.

24-306 Emergency Supply

(1) An emergency supply shall be one or more generator sets driven by a prime mover and located on the hospital premises in a fire-resistant enclosure or room in accordance with the Ontario Building Code and in such a manner as to minimize the possibility of flooding and damage.

(2) The prime mover of the generating set as specified in Subrule (1) shall be capable of operating independantly of supplies of water and fuel from other sources of supply.

SECTION 26— INSTALLATION OF ELECTRICAL EQUIPMENT

General

26-000 Fusible Equipment. Fusible equipment shall employ low-melting point fuses of the type referred to in Rule 14-200 or HRC Form I fuses when connected to conductors whose ampacity is based on Table 1 or 3 or Column 4 of Table 2 or 4, unless equipment using other types of fuses is marked as being suitable for such use.

26-002 Connection to Identified Terminals or Leads. Wherever a device having an identified terminal or lead is connected in a circuit having an identified conductor, the identified conductor shall be connected to the identified terminal or lead.

26-004 Equipment over Combustible Surfaces. Where there is a combustible surface directly under stationary or fixed electrical equipment, that surface shall be covered with a steel plate at least 1.6 millimetres thick, which shall extend not less than 150 millimetres beyond the equipment on all sides, if:

- (a) the equipment is marked to require such protection; or
- (b) the equipment is open on the bottom.

26-006 Installation of Ventilated Enclosures. Ventilated enclosures shall be installed in such a manner that the ventilation is not restricted.

26-008 Sprinklered Equipment. Where electrical equipment vaults or electrical equipment rooms are required to be sprinklered by the provisions of the National Building Code of Canada, the electrical equipment contained in such vaults or rooms shall be protected where needed by noncombustible hoods or shields so arranged as to minimize interference with the sprinkler protection.

26-010 Outdoor Installations

(1) Outdoor installations of apparatus, unless housed in suitable enclosures, shall be surrounded by suitable fencing in accordance with Rules 26-300 to 26-324 of this Code.

(2) Outdoor equipment shall be bonded to ground in an acceptable manner.

26-012 Dielectric Liquid-Filled Equipment, Indoors

(1) Dielectric liquid-filled electrical equipment containing more than 5 gallons of liquid in one tank shall be located in an electrical equipment vault.

(2) Except as permitted in Subrule (4), dielectric liquid-filled electrical equipment containing 5 gallons of liquid or less in one tank, shall be:

- (a) Installed in a service room conforming to the requirements of the Ontario Building Code;
- (b) Provided with a metal pan or concrete curbing capable of collecting and retaining all the liquid of the tank or tanks;
- (c) Isolated from other apparatus by fire-resisting barriers; metal-enclosed equipment being considered as providing segregation and isolation; and
- (d) Separated from other dielectric liquid-filled electrical equipment by such a distance that, if the liquid in such equipment were spread at a density of 1 gallon per 4 square feet, the areas so covered would not overlap, these areas being deemed to be circular if the tank or group of tanks is in an open area, semi-circular if the tank is against a wall and quarter-sector if the tank is in a corner.

(3) Notwithstanding Subrules (1) and (2), motor starters may have these quantities of liquids doubled.

(4) Notwithstanding Subrule (2), capacitors filled with flammable liquids of 3 gallons or less in each tank shall not be required to be installed in an electrical equipment vault nor in a building nor service room; provided that:

- (a) A metal pan or concrete curbing which is capable of collecting and retaining all the liquid of the tank or tanks is installed;
- (b) No other dielectric liquid-filled electrical equipment nor any combustible surface or material is within 4 metres unless segregated by fire-resisting barriers; metal-enclosed equipment being considered as providing segregation; and
- (c) Each capacitor tank is provided with overcurrent protection to minimize case rupture.

26-014 Dielectric Liquid-Filled Equipment, Outdoors

(1) Dielectric Liquid-filled electrical equipment containing more than 10 gallons in one tank, or 30 gallons in a group of tanks, and installed outdoors shall not, except as permitted by Subrule (3), be located within 6 metres of:

- (a) Any combustible surfaces or material on a building;
- (b) Any door or window; or
- (c) Any ventilation inlet or outlet.

(2) The dimension referred to in Subrule (1) shall be the shortest line-of-sight distance from the face of the container containing the flammable liquid to the building or part of the building in question.

(3) Notwithstanding the requirements of Subrule (1), the equipment is permitted to be installed within 6 metres of:

- (a) any combustible surfaces or materials on a building;
- (b) any door or window; or
- (c) any ventilation inlet or outlet

provided a non-combustible wall or barrier is constructed between the equipment and any structure listed in (a), (b) and (c).

(4) Where dielectric liquid-filled electrical equipment containing more than 10 gallons in one tank, or 30 gallons in a group of tanks, are installed outdoors they shall:

- (a) Be inaccessible to unauthorized persons;
- (b) Not obstruct fire fighting operations;
- (c) If installed at ground level, be located on a concrete pad draining away from structures or be in a curbed area filled with coarse crushed stone; and
- (d) Not have open drains for the disposal of flammable liquid in the proximity of combustible construction or materials.

Isolating Switches

26-100 Location of Isolating Switches

(1) Isolating switches may be located so as to require the use of a hook stick to operate them.

(2) Isolating switches shall be plainly marked so as to make it unlikely that they will be opened under load, unless:

- (a) They are located or guarded so as to render them inaccessible to unauthorized persons; or
- (b) They are interlocked so that they cannot normally be opened under load.

Circuit Breakers

26-120 Indoor Installation of Circuit Breakers

(1) Dielectric liquid-filled circuit breakers installed indoors shall be installed in accordance with Rule 26-012.

(2) Circuit breakers installed in electrical equipment vaults shall be operable without opening the door of the vault.

Fuses

26-140 Installation of Fuses. Fuses shall be located so that:

- (a) their operation will not result in injury to persons or damage to property or other equipment; and
- (b) they can be readily inserted or removed.

Capacitors

26-200 Capacitors Exempted. The requirements of Rules 26-202 to 26-222 shall not apply to capacitors that form component parts of factory assembled electrical equipment nor to surge protective capacitors.

26-202 Capacitors Installed Indoors. Dielectric liquid-filled capacitors located indoors shall be installed in accordance with Rule 26-012.

26-204 Guarding of Capacitors. All live parts of capacitors shall be inaccessible to unauthorized persons.

26-206 Grounding of Capacitors. Non-current-carrying metal parts of capacitors shall be bonded to ground.

26-208 Conductor Size for Capacitors.

(1) The ampacity of capacitor feeder circuits and branch circuits shall be not less than 135 per cent of the rated current of the capacitor.

(2) Where a branch circuit supplies two or more capacitors the overcurrent device protecting the conductors of the branch circuit shall be considered as protecting the taps made thereto to supply single capacitors provided that:

- (a) the tap is not more than 7.5 metres long; and
- (b) its conductors comply with Subrule (1) and also have an ampacity not less than one-third that of the branch-circuit conductors from which they are supplied.

26-210 Overcurrent Protection. An overcurrent device, rated or set as low as practicable without causing unnecessary opening of the circuit, but not exceeding 250 per cent of the rated current of the capacitor or such larger percentage as is lawful under Rule 2-030, shall be provided in each ungrounded conductor of a capacitor feeder or branch circuit.

26-212 Disconnecting Means for Capacitor Feeder or Branch Circuits

- (1) A disconnecting means shall be provided in each

ungrounded conductor of the capacitor feeder or branch circuit.

(2) The disconnecting means shall be within sight of and not more than 9 metres from the capacitor unless the disconnecting means can be locked in the open position.

(3) A warning notice shall be fixed to the disconnecting means used on circuits having capacitors only, reading "WARNING—CAPACITOR CIRCUIT. WAIT 5 MIN AFTER OPENING THEN SHORT CAPACITORS BEFORE HANDLING".

26-214 Rating of the Disconnecting Means for Capacitor Feeders or Branch Circuits. The disconnecting means for a capacitor feeder or branch circuit shall have a continuous current rating not less than the following percentage of the rated capacitor current:

- | | |
|-----------------------------------|--------------|
| (a) Enclosed switches | 165 per cent |
| (b) Moulded case circuit breakers | 150 per cent |
| (c) Power circuit breakers | 135 per cent |

26-216 Rating of Contactors for Capacitor Feeders or Branch Circuits. Contactors used for the switching of capacitors shall have a current rating not less than the following percentage of the rated capacitor current:

- | | |
|-----------------------------|--------------|
| (a) Open type contactor | 135 per cent |
| (b) Enclosed type contactor | 150 per cent |

26-218 Special Provisions for Motor Circuit Capacitors

(1) Where a capacitor is connected on the load side of a motor circuit disconnecting means:

- (a) Individual disconnecting means for the capacitor need not be provided;
- (b) The rating of the disconnecting means, the overcurrent device, and the size of the motor-circuit conductors need not be greater than would be required without the capacitor; and
- (c) The ampacity of the conductors connecting the capacitor to the motor circuit shall be in accordance with Rule 26-208 and shall be not less than one-third that of the motor circuit conductors.

(2) Where a capacitor is connected on the load side of a motor controller:

- (a) The rating of the capacitor shall not exceed the value required to raise the no-load power factor of the motor to unity;
- (b) The rating or setting of the overload device shall be reduced to a value corresponding with

the current obtained with the improved power factor;

- (c) Individual overcurrent protection for the capacitor need not be provided;
- (d) The motor shall not be subject to star-delta-starting, auto-transformer starting, or switching service such as plugging, rapid reversals, reclosings, jogging, or other similar operations that generate overvoltages and over torques; and
- (e) Time delay devices shall be installed in the motor control circuit of motors driving high inertia loads, so that the motor cannot be restarted until the residual voltage is reduced to 10 per cent of the nominal value.

26-220 Transformers Supplying Capacitors. The volt-ampere rating of a transformer supplying a capacitor shall not be less than 135 per cent of the capacitor volt-ampere rating.

26-222 Drainage of Stored Charge of Capacitors

(1) Capacitors shall be provided with a means of draining the stored charge.

(2) The draining means shall be such that the residual voltage will be reduced to 50 volts or less after the capacitor is disconnected from the source of supply:

- (a) Within 1 minute in the case of capacitors rated at 750 volts or less; and
- (b) Within 5 minutes in the case of capacitors rated at more than 750 volts.
- (3) The discharge circuit shall be:

(a) Permanently connected to the terminals of the capacitor bank; or

(b) Provided with automatic means of connecting it on removal of voltage from the line.

(4) The discharge circuit shall not be switched or connected by manual means.

(5) Motors, transformers, or other electrical equipment capable of constituting a suitable discharge path, connected directly to capacitors without the interposition of a switch or overcurrent device, constitute a suitable discharge path.

Transformers

26-240 Transformers, General

(1) In this Subsection, transformer means a single phase transformer, a polyphase transformer, or a bank of two or three single phase transformers connected to operate as a polyphase transformer.

(2) Transformers shall be constructed so that all live parts are enclosed unless they are installed so as to be inaccessible to unauthorized persons.

(3) Transformers shall be protected from mechanical damage.

(4) Dielectric liquid-filled transformers shall be mounted so that there will be an air space of 150 millimetres between transformers, and between transformers and adjacent surfaces of combustible material except the plane on which the transformer is mounted.

26-242 Outdoor Transformer Installations.

(1) Where transformers, including their conductors, control, and protective equipment are installed outdoors they shall:

(a) If dielectric liquid filled, be installed in accordance with Rule 26-014;

(b) If isolated by elevation, have the bottom of their platform not less than 3.6 metres above the ground;

(c) If not isolated by elevation or not housed in suitable enclosures, have the entire installation surrounded by a suitable fence in accordance with Rule 26-300 to 26-324 of this Code;

(d) Have, conspicuously posted, suitable warning signs indicating the highest potential employed except where there is no exposed live part.

(2) Dielectric liquid-filled pad-mounted transformers shall be installed at least 3 metres from any combustible surface or material on a building and shall be installed at least 6 metres from any window, door or ventilation opening on a building.

(3) Notwithstanding the requirements of Subrule (2), transformers are permitted to be installed within 6 metres of:

(a) any door or window; or

(b) any ventilation inlet or outlet,

provided a non-combustible wall or barrier is constructed between the transformer and any structure listed in (a) and (b).

26-244 Transformers Mounted on Roofs

(1) Except as permitted by Subrule (2) dielectric liquid-filled transformers installed on the roof of a building, shall be located in an electrical equipment vault in accordance with Rules 26-350 to 26-356, and adequately supported by means of non combustible construction.

(2) Transformers containing a non-propagating liquid suitable for the purpose, having a fire-point not less than 300°C, installed on the roof of a building need not be located in an electrical equipment vault, but

shall not be placed adjacent to doors or windows, nor within 4.5 metres of discharge vents for flammable fumes, or combustible or electrically conductive dusts.

26-246 Dielectric Liquid-Filled Transformers Indoors

(1) Except as permitted by Subrule (2) dielectric liquid-filled transformers shall be installed in accordance with Rule 26-012.

(2) Transformers containing a non-propagating liquid, suitable for the purpose, having a fire-point not less than 300°C located indoors shall be installed in an electrical equipment vault unless:

- (a) The transformer is protected from mechanical damage either by location or guarding;
- (b) A pressure relief vent is provided where the rating exceeds 25 kva at 25 cycles or 37½ kva at 60 cycles;
- (c) A means of absorbing gases generated by arcing inside the case, or a pressure relief vent connected to outdoors, is provided where the transformer is installed in a poorly ventilated location; and
- (d) Where the voltage rating exceeds 15,000 volts, the transformer is installed in a service room accessible only to authorized persons.

26-248 Dry-Core, Open-Ventilated Type Transformers

(1) Transformers of the dry-core open-ventilated type shall be mounted so that there is an air space of not less than 150 millimeters between the transformer enclosures and between a transformer enclosure and any adjacent surface, except floors.

(2) Notwithstanding Subrule (1), where the adjacent surface is a combustible material, the minimum permissible separation between the transformer enclosure and the adjacent surface shall be 300 millimeters.

(3) Notwithstanding Subrule (1), where the adjacent surface is the wall on which the transformer is mounted, the minimum permissible separation between the enclosure and the mounting walls shall be 6 millimeters if the adjacent surface is of:

- (i) Non-combustible material;
- (ii) Combustible material adequately protected by non-combustible heat insulation material other than sheet metal; or
- (iii) Combustible materials shielded by grounded sheet metal with an air space not less than 50 millimeters between the sheet metal and the combustible material.

(4) Dry-type transformers not of the sealed type

shall not be installed below grade level unless adequate provision is made to prevent flooding.

(5) Dry-type transformers not of the sealed type shall be installed in such a manner that water or other liquids cannot fall on to the winding.

26-250 Disconnecting Means for Transformers. A disconnecting means shall be installed in the primary circuit of each power transformer.

26-252 Overcurrent Protection for Power and Distribution Transformers Rated Over 750 Volts

(1) Except as permitted in Subrules (2), (3) and (4), each transformer shall be protected by an individual overcurrent device on the primary side, which shall be rated at not more than 150 per cent of the rated primary current of the transformer in the case of fuses, and which shall be set at not more than 300 per cent of the rated primary current of the transformer in the case of circuit breakers.

(2) Where 150 per cent of the rated primary current of the transformer does not correspond to a standard rating of a fuse, the next higher standard rating is permitted.

(3) An individual overcurrent device shall not be required where the feeder or branch circuit overcurrent device provides the protection specified in this Rule.

(4) A transformer having an overcurrent device on the secondary side rated or set at not more than the values in Table 50 or a transformer equipped with coordinated thermal overload protection by the manufacturer, shall not be required to have an individual overcurrent device on the primary side provided the primary feeder overcurrent device is rated or set at not more than the values in Table 50.

26-254 Overcurrent Protection for Power and Distribution Transformers Rated 750 Volts or Less, Other than Dry Type Transformers

(1) Except as permitted in Subrules (2), (3), (4), (5) and (6), each transformer shall be protected by an individual overcurrent device on the primary side, rated or set at not more than 150 per cent of the rated primary current of the transformer.

(2) Where the rated primary current of a transformer is:

- (a) Nine amperes or more, and 150 per cent of this current does not correspond to a standard rating of a fuse or non-adjustable circuit breaker, the next higher standard rating is permitted; or
- (b) Less than 9 amperes, an overcurrent device rated or set at not more than 167 per cent of the rated primary current is permitted, except that where the rated primary current is less than 2 amperes an overcurrent device rated

or set at not more than 300 per cent of the rated primary current is permitted.

(3) An individual overcurrent device shall not be required where the feeder or branch circuit overcurrent device provides the protection specified in this Rule.

(4) A transformer having an overcurrent device on the secondary side rated or set at not more than 125 per cent of the rated secondary current of the transformer shall not be required to have an individual overcurrent device on the primary side provided the primary feeder overcurrent device is rated or set at not more than 300 per cent of the rated primary current of the transformer.

(5) Notwithstanding Subrule (4), where the rated secondary current of a transformer is:

- (a) Nine amperes or more, and 125 per cent of this current does not correspond to a standard rating of a fuse or non-adjustable circuit breaker, the next higher standard rating is permitted; or
- (b) Less than 9 amperes, an overcurrent device rated or set at not more than 167 per cent of the rated secondary current is permitted.

(6) A transformer equipped with coordinated thermal overload protection by the manufacturer and arranged to interrupt the primary current, shall not be required to have an individual overcurrent device on the primary side if the primary feeder overcurrent device is rated or set at a value:

- (a) Not more than 6 times the rated current of the transformer for a transformer having not more than $7\frac{1}{2}$ per cent impedance; or
- (b) Not more than 4 times the rated current of the transformer for a transformer having more than $7\frac{1}{2}$ per cent but not more than 10 per cent impedance.

26-256 Overcurrent Protection for Dry-Type Transformers Rated 750 Volts or Less

(1) Except as permitted in Subrule (2), each transformer shall be protected by an individual overcurrent device, on the primary side, rated or set at not more than 125 per cent of the rated primary current of the transformer and this primary overcurrent device is permitted to be considered as protecting secondary conductors and panelboards rated at 125 per cent or more of the rated secondary current.

(2) Notwithstanding Subrule (1), a transformer having an overcurrent device on the secondary side set at not more than 125 per cent of the rated secondary current of the transformer shall not be required to have an individual overcurrent device on the primary side provided the primary feeder overcurrent device is set at not more than 300 per cent of the rated primary current of the transformer

(3) Where 125 per cent of the rated primary current

of the transformer does not correspond to a standard rating of the overcurrent device, the next higher standard rating is permitted.

26-258 Conductor Size for Transformers

(1) The conductors supplying transformers shall have an ampacity rating:

- (a) Not less than 125 per cent of the rated primary current of the transformer for a single transformer; or
- (b) Not less than the sum of the rated primary currents of all transformers plus 25 per cent of the rated primary current of the largest transformer for a group of transformers operated in parallel or on a common feeder.

(2) The secondary conductors connected to transformers:

- (a) Shall have an ampacity rating not less than 125 per cent of the rated secondary current of the transformer for a single transformers; or
- (b) Shall have an ampacity rating not less than 125 per cent of the sum of the rated secondary currents of all the transformers operated in parallel.

(3) Notwithstanding Subrules (1) and (2), primary and secondary conductors are permitted to have an ampacity rating not less than that required by the demand load, provided they are protected in accordance with Rules 14-100 and 14-104.

(4) Where multi-rating transformers are used, the primary and secondary conductors shall have an ampacity rating not less than 125 per cent of the rated primary and secondary current of the transformer at the utilization voltage.

26-260 Overcurrent Protection of Instrument Voltage Transformers

(1) Except under the conditions of Subrules (2), (3), and (4), instrument voltage transformers shall have primary fuses rated not more than:

- (a) 10 amperes for low-voltage circuits; and
- (b) 3 amperes for high-voltage circuits.

(2) Primary fuses shall not be installed where they would be connected in the grounded primary neutral connection of "Y" or "Open Y" connected voltage transformers.

(3) Primary fuses may be omitted:

- (a) Where the transformers are protected by adequate power fuses or other adequate protective devices for clearing equipment failures; and convenient means are provided for disconnecting the transformers on the primary side;

- (b) Where voltage transformers and meters, operating at low-voltage and installed in suitable enclosures, are used in place of self-contained meters; or
- (c) Where both voltage and current transformers are supplied by the manufacturer in a single enclosure filled with an acceptable insulating medium, which may be air for use on low-voltage circuits if the enclosure is non-combustible, and where:

- (i) The primary terminals outside the enclosure are common to both voltage and current transformers; and

- (ii) The enclosures are installed outdoors if filled with an insulating medium which will burn in air.

(4) The installation of primary fuses in the centre (common) phase primary connection of "open-delta" connected potential (voltage) transformers is permitted providing the installation is acceptable and is not forbidden by a code or standard under a rule or by-law of the supply authority concerning the installation of "open-delta" potential (voltage) transformers.

26-262 Marking of Transformers. Each transformer shall be provided with a nameplate bearing the following marking:

- (a) Maker's name;
- (b) Rating in kva;
- (c) Rated full-load temperature rise;
- (d) Primary and secondary voltage ratings;
- (e) Frequency in Hertz;
- (f) Liquid capacity, if of the liquid-filled type;
- (g) Type of liquid to be used;
- (h) Rated impedance, if of the power or distribution type; and
- (i) Basic impulse insulation level (BIL) for transformers rated 2.5 kilovolts voltage class and higher.

26-264 Auto-Transformers

(1) In this Rule "auto-transformers" means transformers in which part of the turns are common to primary and secondary alternating current circuits.

(2) Auto-transformers shall not be connected to interior-wiring systems other than a wiring system or circuit used wholly for motor purposes unless:

- (a) The system supplied contains an identified grounded conductor solidly connected to a

similar identified grounded conductor of the system supplying the auto-transformer;

- (b) The auto-transformer is used for starting or controlling an induction motor;
- (c) The auto-transformer supplies a circuit wholly within the apparatus which contains the auto-transformer; or
- (d) The auto-transformer is used for fixed voltage adjustment on an existing power circuit having no identified grounded conductor.

(3) Where an auto-transformer is used for starting or controlling an induction motor it may be included in a starter case or it may be installed as a separate unit.

Fences

26-300 General. Rules 26-302 to 26-324 apply to fences for guarding electrical equipment, especially transformers, when located outdoors.

26-302 Clearance of Equipment

(1) The minimum clearance between the fence and unguarded live parts shall be in accordance with Table 33.

(2) The minimum clearance between the fence and enclosures containing live parts shall be 1.1 metres.

(3) The clearance shall provide adequate working space around the equipment, taking into consideration the space required for draw-out type of equipment and the opening of enclosure doors.

26-304 Height of Fence. The fence, excluding barbed wire, shall be not less than 1.8 metres high.

26-306 Barbed Wire. The fence shall be topped with not less than 3 strands of barbed wire.

26-308 Setting of Posts

(1) Posts shall be set at a depth of 1.1 metres for end, gate, and corner posts and 1 metre for line posts wherever ground conditions will permit.

(2) Where ground conditions will not permit this depth, extra bracing or concrete footings shall be provided.

(3) Concrete footings may be required for metal posts in any case.

(4) The spacing between posts shall be 3 metres maximum.

(5) End, gate, and corner posts shall be adequately braced against strain.

26-310 Gates

(1) Gates shall preferably open outwardly but, if it is necessary that they open inwardly, they shall not come into contact with the frame or enclosure of any electrical equipment when open.

(2) Gates shall be adequately braced as necessary and double gates shall be used where the width of opening exceeds 1.5 metres.

(3) Centre stops shall be provided for double gates.

(4) Gates shall have provision for securing with padlocks.

26-312 Chain Link Fabric

(1) Chain link fabric shall be securely attached to all posts and gate frames.

(2) Chain link fabric shall be reinforced as necessary at top and bottom to prevent distortion.

(3) Chain link fabric shall extend to within 50 millimetres of the ground.

(4) Chain link fabric shall be:

(a) Made of galvanized steel wire not less than 0.144 inch in diameter;

(b) Have a mesh not greater than 2 inches; and

(c) Be not less than 6 feet in width.

26-314 Use of Wood

(1) Where having regard to public safety and protection of property wood slats are used as a fence material, they shall:

(a) Extend to within 50 millimetres of the ground;

(b) Be placed on the outside of the stringers; and

(c) Be spaced not more than 40 millimetres apart, except that where the frame or enclosure of any electrical equipment is less than 2 metres from the fence, no spacing will be permitted.

26-316 Posts

(1) Metal posts shall be:

(a) Of galvanized steel;

(b) 3-inch nominal pipe size (7.59 pounds per foot) for corner, end, and gate posts; and

(c) 2-inch nominal pipe size (3.65 pounds per foot) for line posts.

(2) Wood posts shall be not less than 6 by 6 inches nominal size, and shall be suitably protected against decay.

26-318 Top Rails. Top rails shall be:

(a) Of galvanized steel;

(b) Of 1¼-inch nominal pipe size (2.25 pounds per foot); and

(c) Provided with suitable expansion joints where necessary.

26-320 Wood Stringers. Wood stringers shall be not less than 2 by 6 inches nominal size if two are used and not less than 2 by 4 inches nominal size if three are used.

26-322 Wood Slats. Wood slats shall be not less than 1 by 4 inches nominal size.

26-324 Preservative Treatment

(1) Steel or iron parts shall be either hot dip galvanized or electroplated with non-ferrous metal.

(2) Wood shall be impregnated, treated, or well painted before assembly and, where in contact with the earth or concrete, shall be impregnated or otherwise suitably treated against decay.

Electrical Equipment Vaults

26-350 General

(1) For purposes of rules pertaining to the construction of electrical equipment vaults, the single word vault(s) shall be understood to have the same meaning as electrical equipment vault(s).

(2) Vaults shall not be used for storage purposes.

(3) Vaults, when required by the Rules of this Code, shall be constructed in accordance with the following Rules 26-352 to 26-356.

26-352 Vault Size. Vaults shall be of such dimensions as to accommodate the installed equipment with at least the minimum clearances specified in the pertinent Sections of this Code.

26-353 Vault Construction

(1) The transformer vault shall be totally enclosed by a fire separation of solid masonry or concrete construction having a fire-resistance rating of not less than 3 hours if the vault is not sprinklered or provided with any other acceptable automatic fire extinguishing system, and not less than 2 hours if the vault is so protected.

(2) The fire-resistance rating shall be based on recognized constructions which have passed testing in accordance with either CAN 4-S101-M82 "Standard Method of Fire Endurance Tests of Building Materials" or Chapter 2 "Fire Performance Ratings" of the Supplement to the National Building Code.

(3) Where a building is required to be sprinklered, the transformer vault described in Subrule (1) need not be sprinklered provided:

(a) The vault is designed for no purpose other than to contain the transformer and its associated equipment; and

(b) The vault is provided with a smoke detector which will actuate the building alarm system in

the event of a fire in the vault, and the smoke detector shall be mounted inside the vault.

(4) A vault, which is a part of a building, and houses transformers indoors, shall have:

- (a) Roofs or ceilings consisting of reinforced concrete of adequate strength for the conditions, not less than 150 millimetres thick; and
- (b) Floors consisting of reinforced concrete of adequate strength for the conditions, not less than 150 millimetres thick, except for floors which are at excavation level, which may be of reinforced concrete not less than 100 millimetres thick.

(5) Walls, roofs or ceilings, and floors shall be adequately anchored together in a manner designed to resist dislodgement by explosion.

(6) Non electrical equipment shall not penetrate fire separations making up the transformer vault, except for pipes or ducts necessary for fire protection or ventilation of the vault.

(7) Except as provided for in Subrule (10), each doorway giving access to a vault shall be provided with a fire door and frame, for flush-mounted doors, that has been certified to conform to the appropriate provisions in CAN4-S104-M80, "Standard Method for Fire Tests of Door Assemblies" and the fire door and frame shall be installed in accordance with the manufacturers instructions.

(8) Fire doors shall have a fire resistance rating not less than:

- (a) 1½ hour for vaults constructed with a 2 hour fire resistance rating; or
- (b) 2 hour for vaults constructed with a 3 hour fire resistance rating.

(9) Each fire door shall be provided with hardware approved for use with that particular door.

(10) The use of a fire door in openings giving access to a vault from an outdoor area may be waived provided there is no undue hazard to persons or property under the circumstances.

(11) All doorways communicating with the building proper, or which may communicate fire to other property shall be provided with a concrete sill of sufficient height to confine within the vault all the oil from the largest transformer or other piece of equipment installed therein, and in no case shall it be less than 100 millimetres in height.

(12) Doors shall open outward from the vault.

(13) Each door shall be provided with a substantial lock or padlock, and shall be kept locked so that unauthorized persons will not have access to the vault.

26-354 Ventilation

(1) In a vault where self-cooled transformers or other equipment is installed, sufficient ventilation shall be provided so as to prevent the ambient air temperature exceeding 40 degrees Celsius.

(2) In a vault ventilated directly from an outdoor area by natural ventilation without the use of ducts, and where the transformers are the principal source of heat, the combined net area of inlet and outlet openings shall not be less than 3 square inches per kva of transformer capacity with a minimum of 1 square foot, except that:

(a) Where transformers in the power class, as defined in CAN 3-C88-M79, Power Transformers and Reactors, are installed, ventilation requirements may be based on the actual full-load losses;

(b) Where one or more transformers are installed for emergency purposes only, and are not normally energized, they need not be considered in determining ventilation requirements; and

(c) The inlet for fresh air shall lead from an outdoor area and shall terminate at a point not more than 1 metre above the floor level of the vault.

(3) Where mechanical ventilation is installed, the installation shall include the following features:

(a) The vault ventilation is separate from the main building ventilation system;

(b) The vault temperature is thermostatically controlled;

(c) The ventilating fan is located so that it may be serviced without danger to personnel;

(d) A high temperature alarm is provided;

(e) The ventilating fan is cut off automatically in the event of fire; and

(f) A filter is provided in the air inlet if there is a possibility of dirt being drawn in.

(4) Ventilating ducts shall be constructed of non-combustible materials, other than aluminum, and their construction and installation shall comply with the applicable requirements of the Ontario Building Code.

(5) All ventilation openings, shall be covered with screens, louvres or equivalent, constructed of durable materials, and they shall be installed in such a manner that the cover cannot be removed from the outside by the use of common tools, that is they shall be tamper-proof.

(6)(a) Where a ventilation duct or opening pierces a vault fire separation, separating the vault from

any area other than the outdoors then a fire damper, certified to CAN 4-S112-M82, "Standard Method of Fire Tests of Fire Damper Assemblies" shall be provided in the fire separation and the damper shall have a fire resistance rating not less than;

- (i) 1½ hour for vaults constructed with a 2 hour fire resistance rating; or
 - (ii) 2 hour for vaults constructed with a 3 hour fire resistance rating.
- (b) Fire dampers shall be installed in the plane of the fire separation so as to stay in place should the duct be dislodged during a fire;
- (c) Fire dampers tested in the vertical or horizontal position shall be installed in the manner in which they were tested;
- (d) A tightly fitted access door shall be installed for each fire damper to provide access for the inspection of the damper and resetting of the release device;
- (e) Fire dampers shall be arranged to close automatically upon the operation of a fusible link conforming to ULC-S505-1974, "Standard for Fusible Links for Fire Protection Service";
- (f) The sleeve through the fire separation containing the fire damper shall be at least the same gauge as the duct.

26-355 Drainage

(1) A vault shall be provided with a drain or other means which will carry off an accumulation of oil or water in the vault.

(2) Where local by-laws prohibit the draining of oil into the public sewage system, the drain may empty into a covered sump or pit, provided the cover is non-combustible and a trap is provided between the drain and the sump or pit to prevent flame travel to the latter.

(3) The floor shall slope downwards towards the drain with a minimum pitch of ¼ inch per foot.

26-356 Illumination

(1) Each vault shall be provided with adequate lighting controlled by one or more switches located near the entrance.

(2) Lighting fixtures shall be located so that they may be relamped without danger to personnel.

(3) Each vault shall have a grounding type receptacle, installed in accordance with Rule 26-700 (8) and located in a convenient location inside the vault and near the entrance.

Switchboards and Switchgear

26-400 Switchgear Clearance from Ceiling. Switchgear shall not be built up to a point within 900

millimetres of a ceiling of combustible material or a ceiling of plaster applied over a combustible base unless the combustible material or base is protected against damage from fire by:

- (a) Metal lath and cement plaster;
- (b) ¼ inch rigid asbestos board; or
- (c) Other acceptable means.

26-402 Accessibility to Switchboards

(1) Adequate working space shall be provided about switchboards as required by Rule 2-308.

(2) All parts within a switchboard shall be accessible.

26-404 Air Circuit Breakers on Switchboards. If air circuit breakers of an open type are mounted on the front of a switchboard, they shall be mounted in a single horizontal row with their tops not less than 1.5 metres above the floor or operating platform.

26-406 Conductor Covering at Switchgear

(1) Closely grouped conductors feeding to or from switchgear that do not have moisture-resistant insulation on the individual conductors shall have an overall moisture-resistant covering.

(2) Asbestos tape, if used for overall covering, shall be kept away from terminals and other live parts.

26-408 Marking of Switchgear Assemblies. Switchgear assemblies rated over 13.8 kilovolts shall be marked with the basic impulse insulation level (BIL).

26-440 Panelboards in Dwelling Units

(1) A panelboard shall be installed in every dwelling unit including dwelling units in an apartment or in other multi-family dwellings.

(2) Every panelboard installed in accordance with Subrule (1) of this Rule shall have a single supply protected by overcurrent devices and this supply shall be capable of being disconnected without disconnecting the supply to any other dwelling unit.

26-442 Locations of Panelboards

(1) Panelboards shall not be located in coal bins, bathrooms, stairways, high ambient rooms, dangerous or hazardous locations, nor in any similar undesirable places.

(2) Panelboards in dwelling units shall be installed at least 1.2 metres above the finished floor level wherever practicable.

26-444 Supports for Panelboards. The back surface of a panelboard is not permitted to be in direct contact

with, or within 50 millimetres through air, measured perpendicularly to the surface, of a material having a flame spread rating greater than 25, where the panel-board is located in a room or area of combustible construction.

Lightning Arresters

26-500 Use and Location of Lightning Arresters

(1) Lightning arresters shall be installed in every distributing substation in locations where lightning disturbances are of frequent occurrence and no other adequate protection is provided.

(2) Lightning arresters installed for the protection of utilization equipment:

- (a) May be installed either inside or outside the building or enclosure containing the equipment to be protected;
- (b) Shall be isolated by elevation, enclosed or made otherwise inaccessible to unauthorized persons.

26-502 Indoor Installations of Lightning Arresters

(1) Where lightning arresters are installed in a building, they shall be located well away from all equipment other than that which they protect and from passageways and combustible parts of buildings.

(2) Where lightning arresters containing oil are installed in a building, they shall be separated from other equipment by walls conforming to electrical equipment vault construction requirements in accordance with Rules 26-350 to 26-356.

26-504 Outdoor Installations of Lightning Arresters. Where arresters containing oil are located outdoors, means of draining or absorbing oil shall be provided by:

- (a) Ditches or drains; or
- (b) Paving the yard in which the arrester is contained with cinders or other absorbent material to an adequate depth.

26-506 Choke Coils for Lightning Arresters. Where choke coils are used in connection with a lightning arrester, the coils shall be installed between the lightning arrester tap and the apparatus to be protected.

26-508 Connection of Lightning Arresters. The connection between arrester and line conductor shall be:

- (a) Of copper wire or cable not smaller than No. 6 AWG;
- (b) As short and as straight as practicable with a minimum of bends; and
- (c) Free of sharp bends and turns.

26-510 Insulation of Lightning Arrester Accessories. The insulation from ground and from other conductors for accessories such as gap electrodes and choke coils shall be at least equal to the insulation required at other points of the circuit.

26-512 Grounding of Lightning Arresters. Lightning arresters shall be grounded in accordance with Section 10.

Storage Batteries

26-540 Scope

(1) Rules 26-542 to 26-552 apply to the installation of storage batteries.

(2) Rule 26-554 applies to the installation of electrical equipment, other than storage batteries, in a battery room.

26-542 Special Terminology

(1) "Storage battery" means a battery comprised of more than one rechargeable cell of the lead-acid alkaline, or other electrochemical types.

(2) "Sealed cell or battery" means a storage battery which has no provision for the addition of water or electrolyte or for the external measurement of electrolyte specific gravity.

26-544 Location of Storage Batteries. Batteries with exposed live parts shall be kept in a room or enclosure accessible only to authorized personnel.

26-546 Ventilation of Battery Rooms or Areas

(1) Storage battery rooms or areas shall be adequately ventilated.

(2) Storage batteries shall not be subjected to ambient temperatures greater than 45° Celsius or less than the freezing point of the electrolyte.

26-548 Battery Vents

(1) Vented cells shall be equipped with flame arresters.

(2) Sealed cells shall be equipped with pressure release vents.

26-550 Battery Installation

(1) Battery trays, racks, and other surfaces on which batteries are mounted shall be:

- (a) Level;
- (b) Protected against corrosion from the battery electrolyte;
- (c) Covered with an insulating material having a dielectric strength of at least 1500 volts;

- (d) Of sufficient strength to carry the weight of the battery; and
- (e) Designed to withstand vibration and sway where appropriate.

(2) Battery cells shall be spaced a minimum of 10 millimetres apart.

(3) Battery cells having conductive containers shall be installed on non-conductive surfaces.

(4) Sealed cells and multi-compartment sealed batteries having conductive containers shall have an insulating support if a voltage is present between the container and ground.

(5) Cells and multi-compartment vented storage batteries, with covers sealed to containers of non-conductive, heat resistant material, shall not require additional insulating support.

(6) Batteries having a nominal voltage greater than 150 volts and with cells in rubber or composition containers, shall be sectionalized into groups of 150 volts or less.

26-552 Wiring to Batteries

(1) The wiring between cells and batteries and between the batteries and other electrical equipment shall be:

- (a) Bare conductors which shall not be taped;
- (b) Open wiring;
- (c) A jacketed flexible cord;
- (d) Mineral-insulated cable provided it is adequately protected against corrosion where it may be in direct contact with acid or acid spray; or
- (e) Aluminum-sheathed cable provided it has suitable corrosion-resistant protection where necessary.

(2) Where wiring is installed in rigid conduit or electrical metallic tubing:

- (a) The conduit or tubing shall be of corrosion-resistant material or other materials suitably protected from corrosion;
- (b) The end of the raceway shall be tightly sealed with sealing compound, rubber tape, or other acceptable material, to resist the entrance of electrolyte by spray or creeping;
- (c) The conductor shall issue from the raceway through a substantial glazed insulating bushing;

(d) At least 300 millimetres of the conductor shall be free from the raceway where connected to a cell terminal; and

(e) The raceway exit shall be located at least 300 millimetres above the highest cell terminal to reduce electrolyte creepage or spillage entering the raceway.

26-554 Wiring Methods and Installation of Equipment in Battery Rooms. The installation of wiring and equipment in a battery room shall be in accordance with the requirements for a dry location.

Arc Lamps

26-600 Location of Arc Lamps

(1) Outdoor arc lamps, attached to a building and supplied from the interior installation shall be suspended at least 2.5 metres above the ground level.

(2) Indoor arc lamps shall be hung out of reach or shall be protected in an acceptable manner.

26-602 Conductors to Arc Lamps

(1) Leads to arc lamps shall have an ampacity of approximately 150 per cent of the normal current of the lamp.

(2) The leads shall be stranded where:

- (a) The size exceeds No. 14 AWG; and
- (b) The lamp suspension provides for raising and lowering.

26-604 Overcurrent Protection for Arc Lamps. An overcurrent device shall be provided for each arc lamp or series of lamps.

26-606 Resistors or Regulators

(1) Resistors or regulators shall be enclosed in incombustible cases and located away from readily combustible material.

(2) Incandescent lamps shall not be used as resistors or regulators.

26-608 Globes and Spark Arresters

(1) Arc lamps other than those of the enclosed arc type shall be equipped with globes and spark arresters.

(2) Globes shall be guarded by wire netting having a mesh of not more than 32 millimetres.

Resistance Devices

26-640 Location of Resistance Devices. Resistance devices, including wiring to the resistance elements, shall be installed so that danger of igniting adjacent combustible material will be reduced to a minimum.

26-642 Conductors for Resistance Devices. Insulated conductors used for connection between resistance elements and controllers, unless used for infrequent motor starting, shall conform to the following:

- (a) As indicated in Table 19 as being suitable for the temperature involved and in no case less than 90°C (194F);
- (b) Conductors having an approved flame-retardant outer covering may be grouped where the potential between any two conductors in the group does not exceed a maximum of 75 volts.

26-644 Use of Incandescent Lamps as Resistance Devices

(1) Incandescent lamps may be used:

- (a) As protective resistors for automatic controllers; or
- (b) As resistors in series with other devices if the use is lawful under Rule 2-030.

(2) Where incandescent lamps are used as resistors, they shall:

- (a) Be mounted in porcelain receptacles on incombustible supports;
- (b) Be arranged so that they cannot be subjected to a voltage greater than that for which they are rated;
- (c) Be provided with a permanently attached nameplate showing the wattage and voltage of the lamp to be used in each receptacle;
- (d) Not carry or control the main current; and
- (e) Not constitute the regulating resistance of the device.

Receptacles and Heating and Cooking Appliances

Receptacles

26-700 General

(1) Receptacles shall be constructed so that no outlet section will accommodate both parallel and tandem blade attachment plugs.

(2) Receptacle configurations shall be in accordance with Diagrams 1 and 2 except:

- (a) For receptacles used on equipment solely for interconnection purposes;
- (b) For receptacles for specific applications as required by other rules of this Code; or

(3) Receptacles having configurations in accordance with Diagrams 1 and 2 shall only be connected to circuits having a nominal voltage corresponding to the

rating of the configurations or to circuits having such other nominal voltage as is lawful under Rule 2-030.

(4) Receptacles connected to circuits having different voltages, frequencies or types of current (ac or dc) on the same premises shall be of such design that attachment plugs used on such circuits are not interchangeable.

(5) Receptacles shall not be of the screw base type.

(6) Receptacles with exposed terminals shall be used only in fittings, metal troughs, and similar devices.

(7) Receptacles located in floors shall be enclosed in floor boxes approved for the purpose.

(8) Where grounding type receptacles are used in existing installations to replace the ungrounded type, the grounding terminal shall be effectively bonded to ground and one of the following methods may be used:

- (a) By connection to a metal raceway or a cable sheath which is bonded to ground;
- (b) By connection to the system ground by means of a separate bonding conductor; or
- (c) By bonding to an adjacent grounded metallic cold water pipe.

(9) Notwithstanding the requirements of Subrule (8) and where a grounding means does not exist in the receptacle enclosure, receptacles without a bonding conductor shall be permitted to be installed in existing residential occupancies, provided:

- (a) the receptacles contain ground fault circuit interrupters of the Class A type; and
- (b) a bonding conductor is not extended from any ground fault circuit interrupter type receptacle, installed in accordance with Paragraph (9)(a), to any other outlet.

(10) After installation, receptacle faces shall:

- (a) Be flush with or project from faceplates of insulating material; and
- (b) Project a minimum of 0.4 millimetres from metal or conductive faceplates.

(11) Public corridors and public stairs in buildings within the scope of Part 9 of the Ontario Building Code shall have at least one duplex receptacle in each 10 metres of length or fraction thereof.

26-701 Receptacles in Other than Residential Occupancies. Receptacles, including those installed as part of a luminaire, shall be protected by a Ground Fault Circuit Interrupter of the Class A Type when:

- (a) The receptacle is located in a room containing

personal washing facilities such as washbasins, bath tubs, showers or similar devices; and

- (b) The receptacle is located within 3 metres of the facilities described in Paragraph (a).

26-702 Receptacles In Residential Occupancies

- (1) For the purposes of this Rule:

- (a) A "bathroom" means a room containing a wash basin and bathing or showering facilities;
- (b) A "washroom" means a room containing a wash basin but without bathing or showering facilities; and
- (c) "Finished wall" means any wall finished to within 450 millimetres of the floor with dry wall, wood panelling, or like material.

(2) Except as otherwise provided for in this Code, in dwelling units, receptacles shall be installed in finished walls of every room or area, other than kitchens, bathrooms, hallways, laundry rooms, water closet rooms, utility rooms or closets, so that no point along the floor line of any usable wall space is more than 1.8 metres horizontally from a receptacle in that or an adjoining space, such distance being measured along the floor line of the wall spaces involved.

(3) At least one duplex receptacle shall be provided in each enclosed area such as a balcony or porch that is not classified as a finished room or area in accordance with Subrule (2).

(4) The receptacles referred to in Subrules (2) and (3) shall be:

- (a) Duplex receptacles;
- (b) Single receptacles arranged to provide the equivalent number of contact devices.

(5) The usable wall space referred to in Subrule (2) shall include a wall space 900 millimetres or more in width but shall not include doorways, areas occupied by a door when fully opened, windows which extend to the floor, fireplaces, or other permanent installations that would limit the use of the wall space.

(6) In dwelling units there shall be installed in each kitchen:

- (a) One receptacle for each refrigerator;
- (b) A sufficient number of split receptacles along the wall behind counter work surfaces (excluding sinks, built-in equipment and isolated work surfaces less than 300 millimetres long at the wall line) so that no point along the wall line is more than 900 millimetres from a receptacle measured horizontally along the wall line; and

- (c) At least one duplex receptacle in a dining area forming part of a kitchen.

(7) Receptacles shall not be mounted facing up in the work surfaces of counters in kitchen or dining areas.

(8) No point in a hallway within a dwelling unit shall be more than 4.5 metres from a duplex receptacle as measured by the shortest path which the supply cord of an appliance connected to the receptacle would follow without passing through an opening fitted with a door.

(9) At least one duplex receptacle shall be provided:

- (a) In each laundry room or area;
- (b) In each utility room; and
- (c) In any unfinished basement area.

(10) At least one receptacle shall be installed adjacent to the washbasin located in each bathroom, washroom, or other room containing a washbasin.

(11) Receptacles located in bathrooms and washrooms shall be protected by a ground fault circuit interrupter of the Class A type, except for receptacles located in accordance with Subrule (13).

(12) Receptacles installed in bathrooms shall be located at least 1 metre from the bathtub or shower stall, this distance being measured horizontally between the receptacle and the bathtub or shower stall, without piercing a wall, partition or similar obstacle.

(13) Where a receptacle is installed in a combined bath and laundry room equipped with washing machine plumbing outlets, the receptacle for the washing machine shall be installed behind the intended washing machine location not more than 600 millimetres from the floor.

(14) Receptacles shall not be placed in ironing cabinets, cupboards, wall cabinets, nor in similar enclosures except where they are intended for use with specific appliances, other than heating appliances, which are located within the enclosure.

(15) Notwithstanding the requirements of Subrule (13), a receptacle is permitted to be installed in a cupboard, shelf, wall cabinet or enclosure for the use of a microwave oven.

(16) For each single dwelling, at least one duplex receptacle shall be installed outdoors so as to be readily accessible from ground or grade level for the use of appliances which, of necessity, are used outdoors.

(17) All receptacles installed outdoors of single dwellings and located within 2.5 metres of ground or grade level shall be protected by a ground fault circuit interrupter of the Class A Type.

(18) At least one duplex receptacle shall be provided for each car space in a garage or carport of a single dwelling.

(19) For the purposes of this Rule, all receptacles shall be of the grounding type constructed to accommodate parallel blade attachment plugs, i.e. CSA Configuration 5-15R as shown in Diagram 1.

(20) Any receptacle that is part of a lighting fixture or appliance, that is located within cabinets or cupboards as permitted by Subrule (14), or that is located more than 1.7 metres above the floor shall not be considered as any of the receptacles required by this Rule.

(21) Where a switched duplex receptacle is used in lieu of a light outlet and fixture, the receptacle shall be considered as one of the wall mounted receptacles meeting the requirements of Subrule (2), provided only half of the receptacle is switched.

(22) At least one duplex receptacle shall be provided for a central vacuum system, where the duct for such a central vacuum system is installed.

26-704 Branch Circuits in Residential Occupancies

(1) Branch circuits from a panelboard installed in accordance with Rule 26-440 shall not be connected to outlets or electrical equipment in any other dwelling unit.

(2) Each receptacle installed for a refrigerator shall be supplied by a branch circuit that does not supply any other outlets except for a recessed clock receptacle and an exhaust fan unit located in the kitchen.

(3) Except as may be permitted by Subrule (4), at least two 3-wire branch circuits shall be provided for receptacles installed along the wall of kitchen counter work surfaces of dwelling units; and

- (a) No more than two split receptacles shall be connected to a 3-wire circuit;
- (b) No other outlets shall be connected to these circuits; and
- (c) Adjacent receptacles shall not be connected to the same 3-wire circuit.

(4) Notwithstanding the requirements of Subrule (3), where the provisions of Rule 26-702(6)(b) requires only one receptacle, only one 3-wire branch circuit need be provided.

(5) A receptacle installed in a dining area forming part of a kitchen of a dwelling unit shall be supplied by a three-wire circuit to which no other outlets are connected.

(6) At least one branch circuit shall be provided solely for receptacles installed in the laundry room or area and the utility room or area.

(7) In a single dwelling, at least one branch circuit shall be provided solely for receptacles which are located outdoors.

(8) At least one branch circuit shall be provided solely for the receptacles in a carport or garage of a single dwelling except that the lighting fixtures and garage door operator for these areas may be connected to this circuit.

(9) Each receptacle installed in a cupboard, wall cabinet or enclosure for the use of a microwave oven in accordance with Rule 26-702(15), shall be supplied by a branch circuit that does not supply any other outlets and this circuit shall not be considered as forming part of the circuits required under Subrule (3).

(10) At least one branch circuit shall be provided solely for each receptacle installed to supply power to a central vacuum system.

(11) The receptacles in Subrules (7) and (8) are permitted to be connected to the same branch circuit.

26-706 Receptacles Exposed to the Weather

(1) Receptacles exposed to the weather shall be provided with weatherproof cover plates, except that, when these receptacles are installed facing downwards, at an angle of 45 degrees or less from the horizontal, standard metallic cover plates may be used

(2) Where receptacles exposed to the weather are installed in surface-mounted outlet boxes, the cover plates shall be held in place by four screws or by some other equivalent means.

(3) Where receptacles exposed to the weather are installed in flush-mounted outlet boxes, the boxes shall be installed in accordance with Rule 12-3018 and the cover plates shall be fitted so as to make a proper weatherproof seal.

26-708 Receptacles Connected to 3-Wire Branch Circuits

(1) Where receptacles are connected to 3-wire branch circuits:

- (a) The receptacles shall be of an approved type having separate terminals for the connection of the ungrounded conductors; and
- (b) The branch circuit shall comply with Rule 14-010.

(2) Duplex receptacles having one section which will accommodate parallel blade attachment plugs and the other section which will accommodate tandem blade attachment plugs shall be connected only to 3-wire branch circuits that:

- (a) Comply with Rule 14-010; and
- (b) Are protected by overcurrent devices rated or set at not more than 15 amperes.

Electric Heating and Cooking Appliances

26-740 Location of Non-Portable Appliances.

Non-portable electric heating and cooking appliances shall be installed so that the danger of igniting adjacent combustible material is reduced to a minimum.

26-742 Rating of Portable Appliances. The input to portable electric heating and cooking appliance for use on nominal 115-volt branch circuits protected by overcurrent devices rated or set at not more than 15 amperes shall not exceed 1,500 watts at 115 volts.

26-744 Separate Built-In Cooking Units

(1) Separate built-in cooking units without integral overcurrent protection shall be provided with the necessary overcurrent protection, as required by CSA Standard C22.2 No. 61-M89, Household Cooking Ranges, in a separate panel.

(2) Tap circuit conductors feeding individual separate built-in cooking units from a single branch circuit shall have an ampacity of not less than the ampere rating of the unit or heating element which they supply as determined from Tables 1 to 4, whichever is applicable.

(3) Where tap circuit conductors feed individual separate built-in cooking units having integral overcurrent protection the ampacity of the tap circuit conductor shall, in addition to complying with the requirements of Subrule (2), be not less than that of the single-branch circuit supplying them unless the tap circuit is not over 7.5 metres long in which case the ampacity may be one-third that of the single-branch circuit conductors.

26-746 Supply Connections for Appliances

(1) Electric heating and cooking appliances shall have only one point of connection for supply.

(2) The point of connection for a separate built-in cooking unit without integral overcurrent devices shall be in the separate panel referred to in Subrule (1) of Rule 26-744.

(3) Where an electric clothes dryer having an input in excess of 1500 watts at 115 volts but not exceeding 30 amperes, is intended to be installed in a dwelling unit, a receptacle of CSA Configuration 14-30R, as shown in Diagram 1, shall be installed for the supply of energy to the appliance.

(4) An electric clothes dryer having an input in excess of 1500 watts at 115 volts but not exceeding 30 amperes, and used in a dwelling unit, shall be cord-connected by means of a cord and attachment plug of CSA Configuration 14-30P to the receptacle referred to in Subrule (3).

(5) A receptacle of configuration 14-50R, as shown in Diagram 1, shall be installed at a suitable location in every single dwelling and in every dwelling unit of

an apartment or similar multi-dwelling building for supplying electric energy to an electric range.

(6) The receptacle required by Subrule (5) shall be installed:

(a) Above the finished floor at a height not exceeding 130 millimetres to the centre of the receptacle;

(b) As near midpoint as is practicable, measured along the floor line of the wall space intended for the electric range; and

(c) With the U-ground slot orientated to either side;

(7) In a dwelling unit, a free-standing electric range having a calculated demand of 50 amperes or less, shall be cord connected by means of a cord and attachment plug of CSA Configuration 14-50P, to the receptacle referred to in Subrule (5).

(8) Appliances which are intended for connection by a wiring method as specified in Section 12, are permitted to be cord-connected using an attachment plug and receptacle, provided that by doing so there is no undue hazard to persons or property created.

(9) The receptacles required by Subrules (3) and (5) shall be flush-mounted wherever practicable.

(10) Where a wiring system intended to supply an electric clothes dryer is installed, it shall be connected to a receptacle as outlined in Subrule (3) at the load end and connected to the panelboard at the supply end.

(11) Where a receptacle as required by Subrule (3) is installed, it shall be connected to the panelboard by a wiring system as specified in Section 12.

(12) The range receptacle referred to in Subrule (5) shall be connected to the panelboard by a wiring system as specified in Section 12 and shall have overcurrent protection as required by Section 14.

(13) Notwithstanding Subrule (5), the range receptacle need not be installed in:

(a) Dwelling units where a built-in gas fired or electric cook top or built-in gas fired or electric oven is installed; or

(b) Other than single dwellings where provision has been made for a gas range.

26-748 Appliances Exceeding 1,500 Watts

(1) Every electric heating and cooking appliance rated at more than 1,500 watts shall be supplied from a branch circuit used solely for one appliance except that more than one appliance may be connected to a single-branch circuit provided that the following is used:

(a) A multiple-throw manually-operated device

which will permit only one such appliance to be energized at one time; or

- (b) An automatic device which will limit the total load to a value which will not cause operation of the overcurrent devices protecting the branch circuit.

(2) Every electric heating and cooking appliance rated at more than 1,500 watts shall be controlled by an indicating switch which may be in the circuit or on the appliance except that:

- (a) If the rating of the appliance does not exceed 30 amperes, an attachment plug and receptacle may be used instead of a switch; and
- (b) If the appliance has more than one individual heating element each controlled by a switch, no main switch need be provided.

(3) For the purpose of this Rule, two or more separate built-in cooking units together with their overcurrent devices shall be considered as one appliance.

26-750 Signals for Heated Appliances. Where glue pots, soldering irons or appliances intended to be applied to combustible materials are used in other than dwelling units:

- (a) Each appliance or group of appliances shall be provided with an indicating switch and a red pilot light; or
- (b) Each appliance shall be equipped with an integral temperature limiting device, in which case the pilot light may be omitted if the omission is lawful under Rule 2-030.

26-752 Installation of Storage-Tank Water Heaters

(1) Electric storage-tank water heaters, other than those having a tank open to the atmosphere, shall be controlled by means of a temperature regulating device and shall also be provided with secondary protection which will open if the water attains a temperature of 96 degrees Celsius.

(2) The temperature regulating device referred to in Subrule (1) shall regulate the temperature of the water so that it does not exceed 90 degrees Celsius.

(3) Electric storage-tank water heaters shall be located so that the electric supply connections, service covers, and nameplate markings will be accessible after completion of the building structure.

(4) Every electric storage-tank water heater shall be supplied from a branch circuit used solely for the heater.

26-754 Infra Red Drying Lamps. The following requirements shall apply to the installation of infra red drying lamps:

- (a) Branch circuits shall be protected in accordance with Section 14;
- (b) Lampholders of the medium-base, unswitched, porcelain type or other types approved for the

service, may be used with lamps rated at 300 watts or less;

- (c) Screw-shell lampholders shall not be used with lamps rated at more than 300 watts unless especially approved for the purpose;

- (d) In industrial occupancies, lampholders may be operated in series on circuits of more than 150 volts to ground where adequate spacings for the higher circuit voltage are provided.

26-756 Control of Ventilation of Commercial Cooking Equipment. Where a fan is used to ventilate commercial cooking equipment, the control for the fan motor shall be readily accessible, within reach of the cooking equipment, and external to the ventilation duct or hood.

26-758 Induction and Dielectric Heating Equipment

(1) Overcurrent devices shall meet the requirements of Section 14, except in circuits supplying non-motor-generator equipment where the overcurrent device is permitted to be rated or set at more than 200 per cent of the ampacity of the circuit conductors.

(2) A readily accessible disconnecting means having a rating in accordance with Section 28 shall be provided for each generator, or group of generators at a single location.

(3) The supply circuit is permitted to be used as the disconnecting means if the circuit supplies only one generator.

(4) Exposed non-current-carrying metal parts of each piece of equipment shall be bonded to a common bonding point that shall be bonded to ground.

Heating Equipment

26-800 Scope. Rules 26-802 to 26-808 apply to circuits supplying power for the operation and control of non-portable heating equipment that uses solid, liquid, or gaseous fuel.

26-802 Mechanical Protection of Conductors. All branch circuit or tap conductors within 1.5 metres from the floor shall be adequately protected from mechanical injury.

26-804 Fuel Burner Safety Controls. Fuel burner safety controls shall be installed in accordance with the requirements of the CSA Standard C22.2 No. 3-M1988 Electrical Features of Fuel-Burning Equipment.

26-806 Heating Equipment Rated 400,000 British Thermal Units Per Hour and less

(1) Heating equipment having an individual input not exceeding 400,000 British Thermal Units per hour shall be installed in accordance with Subrules (2), (3), (4), and (5).

(2) All electric power for the heating unit and associated equipment operating in connection therewith, shall be obtained from a single branch circuit which shall be used for no other purpose.

(3) For the purpose of this Rule, circulating pumps, and similar equipment need not be considered as associated equipment, provided that such equipment is not essential for the safe operation of the heating unit.

(4) The branch circuit may be tapped as necessary to supply the various pieces of associated equipment, but there shall be no overcurrent protection supplied in the tap to any piece of associated equipment the operation of which is essential to the proper operation of the heating unit, unless the control equipment is of such a nature that the heating unit will be shut down if the associated equipment fails to function due to the operation of the overcurrent device.

(5) Suitable disconnecting means shall be provided for the branch circuit.

(6) The disconnecting means may be a branch circuit breaker at the distribution panelboard, provided the panelboard is located between the furnace and the point of entry to the area where the furnace is located.

(7) Where a separate switch is required, due to the unacceptable location of the branch circuit breaker, it shall:

- (a) Not be located on the furnace nor in a location which can be reached only by passing close to the furnace; and
- (b) Be marked to indicate the equipment it controls.

26-808 Heating Equipment Rated at More Than 400,000 British Thermal Units Per Hour

(1) Heating equipment whose individual input exceeds 400,000 British Thermal Units per hour shall be installed in accordance with Subrules (2) and (3).

(2) All electric power for the heating unit and associated equipment operating in connection therewith shall be obtained from a single feeder or branch circuit which shall be used for no other purposes.

(3) A suitable disconnecting means shall be provided for the feeder or branch circuit.

Pipe Organs

26-900 Installation of Electrically-Operated Pipe Organs

(1) Organ blower motors, when located remote from the organ console, shall be provided with a pilot lamp located at the organ console.

(2) A receptacle shall be provided in the organ loft to facilitate the use of a portable lamp.

Submersible Pumps

26-950 Special Terminology. In this Subsection the following definitions apply:

- (a) Submersible pump means a pump-motor combination where the enclosed electrical equipment is intended to operate submerged in water;
- (b) Deep well submersible pump means a submersible pump intended for use in a well casing or similar protective enclosure which does not have provision for electrical connection by conduit.

26-952 General. Submersible pumps shall be installed in accordance with the manufacturer's instructions and Rule 26-954.

26-954 Deep Well Submersible Pumps Installed in Wells. Deep well submersible pumps installed in wells shall comply with the following:

- (a) The power supply conductors or cable run from the well head to the pump shall be:
 - (i) Types RWU75, RWU90, TWU and TWU75 single conductors or twisted assemblies of these types, suitable for handling at minus 40 degrees Celsius; or
 - (ii) Type SOW, G, G-GC, W or the equivalent power supply cable;
- (b) The supply conductors or cable shall be suitably supported at intervals not exceeding 3 metres to the discharge pipe;
- (c) Supply conductors or cable shall be run from the well head to the main distribution panelboard in accordance with the requirements of Section 12;
- (d) Pumps shall be grounded in accordance with Section 10 except that when the discharge pipe is metallic and continuous from the pump to the well head, the equipment grounding conductor may be terminated by connection to discharge pipe at the well head location.

26-956 Submersible Pumps Installed in Lakes, Rivers and Streams

(1) Except as provided in Subrule (2) submersible pumps installed in lakes, rivers and streams and at similar locations shall comply with the following:

- (a) The voltage supplying the submersible pump shall not exceed 150 volts-to-ground;
- (b) The pump motor shall be bonded to ground by a conductor that is:
 - (i) Sized in accordance with Rule 10-814;

- (ii) Integral with the supply cable, or within the same protective enclosure as the power supply conductors if single conductors are used;
 - (iii) Of the same type of insulation as the supply conductors; and
 - (iv) Terminated adjacent to the location where the branch circuit conductors receive their supply.
- (c) The wiring method to the pump shall be:
- (i) Type RWU75, RWU90, TWU or TWU75 or equivalent single conductor or twisted assemblies of these types, suitable for handling at minus 40 degrees Celsius, enclosed in a plastic water pipe or in rigid PVC conduit; or
 - (ii) Type SOW, G, G-GC, W or equivalent power supply cable;
- (d) The branch circuit supplying the submersible pump shall be protected by a ground fault circuit interrupter with a ground fault current trip setting adjusted to function as low as practicable to permit normal operations of the pump, but in no case shall the ground fault current setting be greater than 10 milliamperes for an operating time period not exceeding 2.7 seconds; and
- (e) The supply conductors or cables shall run from an outdoor connection facility, above or below ground, to the main distribution panelboard in accordance with the requirements of Section 12.

(2) Submersible pumps operating at voltages exceeding 150 volts-to-ground, but not exceeding 5.5 kilovolts, may be installed in lakes, rivers and streams only if their installation is lawful under Rule 2-030 and,

- (a) Wiring methods used and grounding methods shall be of an acceptable type;
- (b) The electrical installation shall be maintained by a qualified electrical maintenance staff; and
- (c) The area around the submersible pump shall be protected from access by the public by fencing, cribbing or isolation and so marked.

26-1000 Permanently Connected Data Processing Units. Branch circuits supplying permanently connected data processing units shall supply no other types of load.

SECTION 28—MOTORS AND GENERATORS

Scope

28-000 Scope. This Section applies to the installation, wiring methods, conductors, and protection and con-

trol of electric motors and generators and is supplementary to or amendatory of, the general requirements of this Code.

General

28-010 Special Terminology. In this section the following definitions apply:

- (a) "Non-continuous Duty Motor" means a motor having characteristics or ratings described in Section 0 Definitions as Short time duty, Intermittent duty, Periodic duty and Varying duty.
- (b) "Locked Rotor Current Rating" means a current rating marked on electric equipment or, where not marked, shall be deemed to be equal to six times the full load current rating from the nameplate of the equipment or from Table 44 or 45 as applicable.
- (c) "Hermetic Refrigerant Motor-Compressor" means a compressor unit in which the compressor and motor are housed within a single container structure with no external shaft or shaft seals, or the motor is housed within a container structure integral with the compressor structure, so that the motor windings operate within a refrigerant atmosphere.
- (d) "Rated Load Current for a Hermetic Refrigerant Motor-Compressor" means a value marked on a Hermetic Motor-Compressor intended for use where applicable to ascertain wiring, protection and control for the unit.

28-012 Guarding. Exposed live parts of motors and controllers operating at 50 volts or more between terminals shall be guarded against accidental contact by means of enclosures or by location; except that stationary motors having commutators, collectors and brush rigging located inside of motor end brackets and not conductively connected to supply circuits operating at more than 150 volts to ground are permitted to have live parts exposed.

28-014 Methods of Guarding. Acceptable methods of guarding of motors having exposed live parts are by:

- (a) Installation in a room or enclosure which is accessible only to authorized persons;
- (b) Installation on a suitable balcony, gallery, or platform elevated and arranged so as to exclude other than qualified persons;
- (c) Elevation by 2.5 metres or more above the floor; or
- (d) Guard rails if the motor operates at 750 volts or less.

28-016 Ventilation

(1) Adequate ventilation shall be provided so as to prevent the development around motors of ambient

air temperatures exceeding 40 degrees Celsius for integral horsepower motors and 30 degrees Celsius for fractional horsepower motors.

(2) Notwithstanding Subrule (1) motors suitable for use in higher ambient temperatures shall be specifically marked for the temperatures in which they will operate.

(3) In locations where dust or flying material will collect in or on motors in such quantities as to interfere with the ventilating or cooling of motors, thereby causing dangerous temperatures, suitable types of enclosed motors which will not overheat under prevailing conditions, shall be used.

Wiring Methods and Conductors

28-100 Stationary Motors. The wiring method for stationary motors shall be in accordance with the applicable requirements of Sections 12 and 36.

28-102 Portable Motors. Connections to portable motors are permitted to be made with flexible cord which shall have a serviceability not less than that of type S cord unless the motor forms part of a motor-operated device.

28-104 Motor Supply Conductor Insulation Temperature Rating and Ampacity

(1) Supply conductors to a motor connection box shall have an insulation temperature rating equal to or greater than required by Table 37, unless the motor is marked otherwise and its ampacity based on a 75 degrees Celsius conductor insulation rating, except for Class A rated motors only where their ampacity is permitted to be based on 90 degrees Celsius insulation rating when 90 degrees Celsius is used as circuit conductors to the motor.

(2) Where Table 37 requires insulation temperature ratings in excess of 75 degrees Celsius, the motor supply conductors shall be not less than 1.2 metres long and shall terminate in a location not less than 600 millimetres from any part of the motor except that for motors rated 100 horsepower or larger, their terminations shall be not less than 1.2 metres from any part of the motor.

(3) For ambients higher than 30 degrees Celsius, the supply conductor insulation rating shall be increased at least by the difference between the ambient temperature and 30 degrees Celsius.

28-106 Conductors, Individual Motors

(1) The conductors of a branch circuit supplying a continuous duty motor shall have an ampacity not less than 125 per cent of the full load ampere rating of the motor.

(2) The conductors of a branch circuit supplying a non-continuous duty motor shall have an ampacity not less than the ampere value obtained by multiplying

the full load ampere rating of the motor by the applicable percentage given in Table 27 for the duty involved, or in the case of a varying duty motor only, that percentage or such lesser percentage as is lawful under Rule 2-030.

(3) Notwithstanding Subrule (1), conductor ampacities are permitted to be selected from Table 26 using the full load current rating for a continuous duty motor.

(4) Tap conductors supplying individual motors from a single set of branch circuit overcurrent devices supplying two or more motors shall have an ampacity at least equal to that of the branch circuit conductors, except where the tap conductors do not exceed 7.5 metres in length, they are permitted to be sized in accordance with Subrule (1) or (2) provided the ampacity so determined is not less than $\frac{1}{3}$ of the ampacity of the branch circuit conductors.

28-108 Conductors, Two or More Motors

(1) Conductors supplying a group of two or more motors shall have an ampacity equal to or exceeding:

- (a) 125 per cent of the full load current rating of the motor having the largest full load current rating plus the full load current ratings of all the other motors in the group where all motors in the group are continuously duty motors;
- (b) The total of the calculated currents determined in accordance with Rule 28-106(2) for each motor where all motors in the group are non-continuous duty motors; or
- (c) The total of the following where the group consists of two or more motors of both continuous and non-continuous duty types;
 - (i) 125 per cent of the current of the continuous duty motor having the largest full load current rating; and
 - (ii) The full load current ratings of all other continuous duty motors; and
 - (iii) The calculated current determined in accordance with Rule 28-106(2) for the non-continuous duty motors.

(2) Where the circuitry is so interlocked as to prevent all motors of the group from running at the same time, the size of the conductors feeding the group shall be permitted to be determined for the motor, or group of motors operating at the same time, having the largest rating selected as determined in Subrule (1).

(3) Where the character of the motor loading justifies reduction of the ampacity of the conductor to less than the ampacity specified in Subrule (1), demand factors may be applied if their application is lawful under Rule 2-030 and,

- (a) The conductors have sufficient ampacity for the maximum demand load; and
- (b) The rating or setting of the overcurrent devices protecting them is in accordance with Rule 28-204(4).

28-110 Feeder Conductors

(1) Where a feeder supplies both motor loads and other loads, the ampacity of the conductors shall be calculated in accordance with Rules 28-106 and 28-108 plus the requirements of the other loads added thereto.

(2) The ampacity of a tap from a feeder to a single set of overcurrent devices protecting a motor branch circuit shall be not less than that of the feeder, except that the ampacity of the tap is permitted to be calculated in accordance with Rules 28-106 and 28-108 if the tap:

- (a) Does not exceed 3 metres in length and is enclosed in metal; or
- (b) Does not exceed 7.5 metres in length, has an ampacity not less than 1/3 that of the feeder and is suitably protected from mechanical damage.

28-112 Secondary Conductors

(1) Conductors connecting the secondaries of wound rotor motors to their controllers shall have ampacities not less than:

- (a) 125 per cent of the rated full load secondary current for continuous duty motors; or
- (b) The percentage of rated full load specified in Table 27 for non-continuous duty motors.

(2) Ampacities of conductors connecting secondary resistors to their controllers shall be not less than that determined by applying the appropriate per centage in Table 28 to the maximum current which the devices are required to carry.

Overcurrent Protection

28-200 Branch Circuit Overcurrent Protection. Each ungrounded conductor of a motor branch circuit shall be protected by an overcurrent device as follows:

- (a) A branch circuit supplying a single motor shall be protected, except as permitted by Subrule (3), by using an overcurrent device of rating not to exceed the values in Table 29 using the rated full load current of the motor;
- (b) Notwithstanding Subrule (1), Table 26 is permitted to be used to select the size of overcurrent devices required for a motor where the full load current rating of the motor is shown in the Table;

(c) Magnetic instantaneous trip circuit interrupters are permitted where applied in accordance with Rule 28-210;

(d) Where the overcurrent devices as determined in Subrule (1) will not permit the motor to start, the rating or setting of the overcurrent device is permitted to be increased as follows:

(i) For a non time delay fuse:

(A) Not in excess of 400 per cent of the motor full load current for fuses rated up to 600 amperes;

(B) Not in excess of 300 per cent of the motor full load current for fuses rated 601 to 6000 amperes; or

(ii) For a time delay fuse to a maximum of 225 per cent of the motor full load current; and

(e) For a branch circuit supplying two or more motors, the rating or setting of the overcurrent device shall not exceed the maximum value permitted by Rule 28-206.

28-202 Overcurrent Protection Marked on Equipment. Where branch circuit protective device characteristics and rating or setting are specified in the marking of motor control equipment, they shall not be exceeded, notwithstanding any greater rating or setting permitted by Rule 28-200.

28-204 Feeder Overcurrent Protection

(1) For a feeder supplying motor branch circuits only, the rating or setting of the feeder overcurrent device shall not exceed a maximum value calculated by determining the maximum rating or setting of the overcurrent device permitted by Rule 28-200 for that motor which is permitted the highest rated overcurrent devices of any motor supplied by the feeder, and adding thereto the sum of the full load current ratings of all other motors which will be in operation at the same time.

(2) Where a feeder supplies a group of motors, two or more of which are required to start simultaneously, and the feeder overcurrent devices as calculated in accordance with Subrule (1) are not sufficient to allow the motors to start, the rating or setting of the feeder overcurrent device is permitted to be increased as necessary, to a maximum not to exceed the rating permitted for a single motor having a full load current rating not less than the sum of the full load current ratings of the greatest number of motors which start simultaneously, provided this value does not exceed 300 per cent of the ampacity of the feeder conductors.

(3) Where a feeder supplies one or more motor branch circuits together with other loads, the overcurrent protection required shall be determined by calculating the overcurrent protection required for the motor circuits and adding thereto the requirements of the other loads supplied by the feeder.

(4) Where a demand factor has been applied as permitted in Rule 28-108(3), the rating or setting of the overcurrent device(s) protecting a feeder shall not exceed the ampacity of the feeder, except as permitted by Rule 14-104 and Table 13.

28-206 Grouping of Motors on a Single Branch Circuit. Two or more motors are permitted to be grouped under the protection of a single set of branch circuit overcurrent devices having a rating or setting calculated in accordance with Rule 28-204(1) provided that the protection conforms to one of the following:

- (a) The rating or setting of the overcurrent devices does not exceed 15 amperes; or
- (b) Protection is provided for the control equipment of the motors by having the branch circuit overcurrent devices rated or set at:
 - (i) Values not in excess of those marked on the control equipment for the lowest rated motor of the group, as suitable for the protection of that control equipment; or
 - (ii) In the absence of such markings, values not in excess of 400 per cent of the full load current of the lowest rated motor; or
- (c) The motors are used on a machine tool or woodworking machine; and
 - (i) The control equipment is arranged so that all contacts which open motor primary circuits are in enclosures, either forming part of the machine base or for separate mounting, having a wall thickness not less than 1.69 millimetres for steel, 2.4 millimetres for malleable cast iron, or 6.3 millimetres for other cast metal, having hinged doors with substantial catches, and having no openings to the floor or the foundation on which the machine rests; and
 - (ii) The rating or setting of the overcurrent devices does not exceed 200 amperes at 250 volts or less, or 100 amperes at voltages from 251 to 750 volts; or
- (d) All the motors are operated by a single controller, as provided for in Rule 28-500(3)(d); or
- (e) The group of motors form part of the coordinated drive of a single machine or process, wherein the failure of one motor to operate creates a hazard unless all the other motors in the group are stopped, and the grouping is lawful under Rule 2-030.

28-208 Size of Fuseholders. Where fuses are used for motor branch circuit or feeder protection, the fuseholders shall be not of a size smaller than required to accommodate fuses of the maximum rating permitted

by Tables 29 or 26 except that fuseholders of a smaller size are permitted to be used:

- (a) Where Rule 28-202 is applicable;
- (b) Where fuses having time delay appropriate for the starting characteristics of the motor are used, in which case the fuseholders shall not be smaller than required to accommodate fuses rated at 125 per cent of the full load current of the motor; or
- (c) In the case of a circuit supplying a group of motors, where the fuseholders accommodate fuses of a size calculated by taking 150 per cent of the largest motor current and adding thereto the applicable full load currents of all other motors in the group which may be in operation at the same time.

28-210 Instantaneous Trip Circuit Interrupters. Instantaneous trip circuit interrupters when used for branch circuit protection, shall be:

- (a) Part of a combination motor starter or controller that also provides overload protection;
- (b) Rated or adjusted, for an A.C. motor, to trip at not more 1300 per cent of the motor full load current or at not more than 215 per cent of the motor locked rotor current, where given, except that ratings or settings for trip currents need not be less than 15 amperes; and
- (c) Rated or adjusted, for a D.C. motor rated at 50 horsepower or less to trip at not more than 250 per cent of the motor full load current, or for a direct current motor rated at more than 50 horsepower, to trip at not more than 200 per cent of the motor full load current.

Overload and Overheating Protection

28-300 Overload Protection Required. The branch circuit conductors and control equipment of each motor shall have overload protection, except as permitted by Rule 28-308.

28-302 Types of Overload Protection

- (1) Overload devices shall be either:
 - (a) A separate overload device which is responsive to motor current and which are permitted to combine the function of overload and overcurrent protection if it is capable of protecting the circuit and motor under both overload and short circuit conditions; or
 - (b) A protective device, integral with the motor and responsive to motor current or to motor current and temperature, provided such device will protect the circuit conductors and control equipment as well as the motor.

(2) Fuses used as separate overload protection of motors shall be time delay fuses of the type referred to in Rule 14-200.

28-304 Number and Location of Overload Devices

(1) The number and location of current responsive devices shall, unless otherwise required, be as follows:

- (a) If fuses are used, one in each ungrounded conductor; or
- (b) As specified in table 25, if devices other than fuses are used.

(2) Where current responsive devices are used for the overload protection of 3-phase motors, such devices shall be comprised of three current responsive elements which are permitted to be:

- (a) Connected directly in the motor circuit conductors as required by Subrule (1); or
- (b) Fed by two or three current transformers so connected that all three phases will be protected.

28-306 Rating or Trip Selection of Overload Devices

(1) Overload devices responsive to motor current shall be rated or selected to trip at not more than the following:

- (a) 125 per cent of the full load current rating of a motor having a marked service factor of 1.15 or greater; or
- (b) 115 per cent of the full load current rating of a motor which does not have a marked service factor or where the marked service factor is less than 1.15.

(2) Notwithstanding Subrule (1), Table 26 is permitted to be used to determine the value of the overload device required for motors having a service factor of 1.15 or greater for a motor where the full load current rating of the motor is listed in the table.

(3) Where a motor overload device is so connected that it does not carry the total current designated on the motor nameplate, such as for wye-delta starting, the per centage of motor nameplate current applying to the selection or setting of the overload device shall be clearly marked on the motor starter or shown in the motor starter manufacturers overload selection table.

28-308 Overload Protection not Required. Overload protection shall not be required for motors complying with any of the following:

- (a) A manually started motor rated at 1 horsepower or less that is continuously attended while in operation, which is on a branch circuit

having overcurrent protection rated or set at not more than 15 amperes or on an individual branch circuit having overcurrent protection as required by Table 29 or 26 if it may be readily determined from the starting location that the motor is running;

- (b) A motor constructed so that it cannot be overloaded;
- (c) A motor whose operating requirements are such that it is impracticable to obtain proper overload protection; or
- (d) An automatically started motor having a rating of 1 horsepower or less forming part of an assembly equipped with other safety controls that protect the motor from damage due to stalled-rotor current and on which a nameplate, so located as to be visible after installation, indicates that such protection features are provided.

28-310 Shunting of Overload Protection During Starting. Overload protection is permitted to be shunted or cut out of the circuit during the starting period, provided that the device by which the protection is shunted or cut out cannot be left in the starting position, and provided that the overcurrent device is in the motor circuit during the starting period.

28-312 Automatic Restarting after Overload. Where automatic restarting of a motor after a shut down on overload could cause injury to persons, the overload or overheating devices protecting the motor shall be so arranged that automatic restarting cannot occur.

28-314 Overheating Protection Required. Each motor shall be provided with overheating protection except as permitted by Rule 28-318.

28-316 Types of Overheating Protection

(1) Overheating protection, where required by Rule 28-314, shall be provided by devices integral with the motor and responsive to both motor current and temperature or to motor temperature only, and shall be arranged to cut off power to the motor, or, if lawful under Rule 2-030, to activate a warning signal when the temperature exceeds the safe limit for the motor.

(2) Motors with inherent overheating protection acceptable under Subrule (1), shall be marked to indicate that they are thermally protected or impedance protected.

28-318 Overheating Protection Not Required. Overheating protection shall not be required;

- (a) Where the motor circuit requires no overload protection under Rule 28-308; or
- (b) Where overload protective devices required by Rule 28-302 adequately protect the motor

against overheating due to excess current and the motor is in a location where:

- (i) Ambient temperatures are not more than 10 degrees Celsius higher than those at the location of the overload devices; and
- (ii) Dust or other conditions will not interfere with the normal dissipation of heat from the motor.

Undervoltage Protection

28-400 Undervoltage Protection Required for Motors. Motors shall be disconnected from the source of supply in case of low voltage by one of the following means unless it is evident that no hazard will be incurred through lack of such disconnection:

- (a) When automatic restarting is liable to create a hazard, the motor control device shall provide low-voltage protection; or
- (b) When it is necessary or desirable that a motor stop on failure or reduction of voltage and automatically restart on return of voltage, the motor control device shall provide low-voltage release.

Control

28-500 Control Required

(1) Except as permitted by Subrule (3), each motor shall be provided with a motor starter or controller for starting and stopping it having a rating in horsepower now less than the rating of the motor it serves.

(2) A motor controller need not open the circuit in all ungrounded conductors to a motor unless it also serves as a disconnecting means.

(3) The motor starter or controllers specified in Subrule (1) shall not be required for motors connected or controlled as follows:

- (a) A single phase portable motor rated at $\frac{1}{2}$ horsepower or less connected by means of a receptacle and attachment plug rated not in excess of 15 amperes 125 volts;
- (b) A motor controlled by a manually operated general-use switch complying with Rule 14-510 having an ampere rating not less than 125 per cent of the full load current rating of the motor;
- (c) A two wire portable alternating current or direct current motor having a rating not in excess of $\frac{1}{3}$ horsepower 125 volts controlled by a horsepower rated single pole motor switch;
- (d) Two or more motors that are required to operate together shall be permitted to be operated

from a single controller specifically approved for such purpose; or

- (e) For a motor where the controller is specifically approved for use with that motor, it need not be rated in horsepower.

28-502 Control Location. A motor controlled manually, either directly or by a control remote from the motor starter, shall have the means of operation of the controller so located;

- (a) That safe operation of the motor and the machinery driven by it is assured, or the motor and the machinery shall be guarded or enclosed so as to prevent accidents due to contact by persons with live or moving parts; or
- (b) Where compliance with Subrule (1) is not practicable because of the type, size, or location of the motor or machinery and its parts, devices shall be provided at each point where the danger of accidents exists whereby the machine or parts of the machine may be stopped in an emergency.

28-504 Starters Having Different Starting and Running Positions

(1) Manual motor starters having different starting and running positions shall be constructed so that they cannot remain in the starting position;

(2) Magnetic motor starters having different starting and running positions shall be constructed so that they cannot remain in the starting position under normal operating conditions.

28-506 Grounded Control Circuit. When power for a control circuit for a motor controller is obtained conductively from a grounded system, the control circuit shall be so arranged that an accidental ground in the wiring from the controller to any remote or signal device will not:

- (a) Start the motor; or
- (b) Prevent the stopping of the motor by the normal operation of any control or safety device in the control circuit.

Disconnecting Means

28-600 Disconnecting Means Required

(1) Except as permitted by Subrules (2) and (3) a separate disconnecting means shall be provided for:

- (a) Each motor branch circuit;
- (b) Each motor starter or controller; and
- (c) Each motor.

(2) A single disconnecting means is permitted to serve more than one of the functions described in Subrule (1).

(3) A single disconnecting means is permitted to serve two or more motors and their associated starting and control equipment grouped on a single branch circuit.

28-602 Types and Ratings of Disconnecting Means (See Appendix B)

(1) A disconnecting means for a motor branch circuit shall be:

- (a) A manually operable fused or unfused motor circuit switch, which complies with Rule 14-010(b) and has a horsepower rating not less than that of the motor it serves;
- (b) A moulded case switch or circuit breaker which complies with Rule 14-010(b) and has a current rating not less than 115 per cent of the full load current rating of the motor it serves;
- (c) An instantaneous trip circuit interrupter which complies with Rules 14-010(b) and 28-210;
- (d) An equivalent device which opens all ungrounded conductors of the branch circuit simultaneously and is capable of safely making and interrupting the locked rotor current of the connected load;
- (e) A single plug fuse for a branch circuit having one grounded conductor feeding a two-wire single phase alternating current or direct current motor rated at not more than $\frac{1}{3}$ horsepower provided it is used only as an isolating means and is not used to interrupt current;
- (f) The draw out feature of a high voltage motor starter or controller of the draw-out type which complies with Rule 14-010(b), is used only as an isolating means and is not used to interrupt current.

(2) A disconnecting means serving a group of motors on a single branch circuit, shall have:

- (a) A current rating not less than 115 per cent of the full load current rating of the largest motor in the group plus the sum of the full-load current ratings of all the other motors in the group which may be in operation at the same time; and
- (b) A horsepower rating not less than the largest motor in the group if a motor circuit switch is used.

(3) A disconnecting means for a motor, motor starter or controller shall comply with Subrule (1), except that:

- (a) An isolating switch or a general use switch used as an isolating switch, if capable of being loaded in the open position, marked as required by Rule 26-100(2) and has a current rating not less than 115 per cent of the full load current rating of the motor it serves is permitted to serve as the disconnecting means for a motor or motor starter:
 - (i) Rated at more than 100 horsepower if for 3 phase operation, or
 - (ii) Rated at more than 50 horsepower if for other than 3 phase operation;
- (b) A manually operated across-the-line type of motor starter shall be permitted to serve as both starter and disconnecting means for:
 - (i) A single motor providing it has a horsepower rating not less than the single motor it serves;
 - (ii) A group of motors providing it has a horsepower rating not less than the largest motor in the group, and a current rating not less than 115 per cent of the full load current of the largest motor in the group plus the sum of the full load currents of all the other motors in the group which may be in operation at the same time;
- (c) An attachment plug is permitted to serve as a disconnecting means for a portable motor and its starting and control equipment provided:
 - (i) The attachment plug and receptacle has a current rating not less than the ampacity of the minimum size conductors permitted for the motor branch circuit or tap in which they are connected and are used only as an isolating means and not to interrupt current; or
 - (ii) The attachment plug and receptacle is used as permitted by Rule 28-500(3);
- (d) The draw-out feature of a high voltage starter or controller of the draw-out type is permitted to serve as the disconnecting means for the motor or controller providing it is used only as an isolating means and is not used to interrupt current;
- (e) A manually operated general use alternating current switch complying with the requirements of Rule 14-510 having a current rating not less than 125 per cent of the full load current of the motor and which need not be horsepower rated is permitted to be used as a disconnecting means for a single phase motor;
- (f) A fused or unfused motor circuit switch is permitted to be used as a disconnecting means for a group of motors served from a single circuit

and need not have a rating greater than that necessary to accommodate the proper fuse rating required for the fused switch provided it has:

- (i) A horsepower rating not less than that of the largest motor in the group; and
- (ii) A current rating not less than 115 per cent of the full load current of the largest motor in the group plus the sum of the full load currents of all the other motors in the group which may be in operation at the same time.

(4) A disconnecting means shall not be of a type which is electrically operated either automatically or by remote control.

28-604 Location of Disconnecting Means

(1) Motor branch circuit disconnecting means described in Rule 28-602-(1)(a), (b), (c) and (d) shall:

- (a) Be located at the distribution center from where the motor branch circuit originates; and
- (b) Where intended to serve as a single disconnecting means for a motor branch circuit, a motor and controller or starter shall also:
 - (i) Be located in accordance with Subrule (3); or
 - (ii) Be capable of being locked in the open position by an acceptable locking device, and be clearly labelled to describe the load or loads connected.

(2) Motor branch circuit disconnecting means described in Rule 28-602(1)(f) shall be located in accordance with Subrule (3).

(3) Motor and motor starter or controller disconnecting means shall be located:

- (a) Within sight of and within 9 metres of the motor and the machinery driven thereby; and
- (b) Within sight of and within 9 metres of the motor starter or controller.

(4) Notwithstanding Subrule (3) where a motor or group of motors is fed from a single branch circuit where the branch circuit disconnecting means is not capable of being acceptably locked in the open position and where the motor disconnecting means is a manually operable across the line type of motor starter, the motor disconnecting means is permitted to be located beyond the limits defined in Subrule (3) providing it is capable of safely making and interrupting the locked rotor current of the connected load, is capable of being locked in the open position and it can be demonstrated that location in accordance with Subrule (3) is clearly impracticable.

(5) Disconnecting means shall be readily accessible

or have the means for operating them readily accessible.

(6) Motor driven machinery of a movable or portable type for industrial use shall have a motor circuit switch or circuit breaker mounted on the machine and accessible to the operator.

Hermetic Refrigerant Motor-Compressors

28-700 Rules for Hermetic Refrigerant Motor-Compressors. Rules 28-702 to 28-714 apply to hermetic motor-compressors, hereinafter referred to as motor-compressors, and are supplementary to or amendatory of the general Rules of this section.

28-702 Marking. Motor-compressors, or equipment including motor compressors, shall be marked as required by Rule 2-100; specifically the marking shall show the rated load current and the locked rotor current rating.

28-704 Horsepower Rated Equipment.

(1) Horsepower rated equipment used for the control of motor-compressors and not having a locked rotor current rating shall be given an equivalent locked rotor current rating equal to 6 times the full-load current rating.

(2) Where the full-load current rating is not marked, an equivalent full-load current rating shall be determined from the horsepower rating by referring to Table 44 or 45 as applicable.

28-706 Conductor Ampacity. The ampacity of conductors of a branch circuit supplying a motor-compressor, or equipment comprised of one or more motor-compressors and other loads, shall be based upon the marked rated load current of the motor compressor or equipment and shall comply with the general requirements of this section.

28-708 Overcurrent Protection

(1) Except as permitted in Subrule (2) each ungrounded conductor of a branch circuit feeding a motor compressor shall be protected by an overcurrent device rated or set at not more than 50 per cent of the locked rotor current of the motor compressor, unless such a device will not permit the motor compressor to start, in which case the rating or setting may be increased to a value not exceeding 65 per cent of the locked rotor current of the motor compressor.

(2) Subrule (1) shall not be deemed to require use of overcurrent devices rated or set at less than 15 amperes.

28-710 Overload Protection. The branch circuit conductors and control equipment for each motor compressor shall be provided with overload protection complying with Rules 28-302 and 28-306 except that:

- (a) The rating or setting of overload relays shall

not exceed 140 per cent of the marked rated load current of the motor compressor;

- (b) The rating or setting of other overload devices, such as fuses, shall not exceed 125 per cent of the marked rated load current of the motor compressor; and
- (c) Approved assemblies comprising one or more motor compressors with or without other loads in combination are acceptable with the overload protection included as part of the approved assembly.

28-712 Control Equipment

(1) Control equipment used for the control of motor compressors shall have:

- (a) Either a marked or an equivalent locked rotor current rating not less than that of the motor compressor which it controls; and
- (b) Either a marked or an equivalent full load current rating not less than that of the rated load current of the motor compressor which it controls.

(2) In all other respects, control equipment for motor-compressors shall be in accordance with Rules 28-500, 28-502 and 28-506.

28-714 Disconnecting Means

(1) The disconnecting means serving a motor compressor shall have:

- (a) A continuous duty current rating not less than 115 per cent of the rated load current of the motor compressor; and
- (b) An interrupting capacity, or an equivalent locked rotor current rating, as determined in accordance with Rule 28-704, of not less than the locked rotor current rating of the motor compressor.

(2) Where one disconnecting means serves one or more motor compressors together with other loads, the disconnecting means shall have:

- (a) A continuous duty current rating of not less than 115 per cent of the rated load current of the motor or motor compressor having the largest rated load current plus the sum of the rated load currents and full-load currents of all other loads which may be in operation at the same time; and
- (b) An interrupting capacity or equivalent locked rotor current rating as determined in accordance with Rule 28-704 of not less than the locked rotor current rating of the motor or motor compressor having the largest marked or equivalent locked rotor current rating, plus the

sum of the full-load current rating of all other loads which may be in operation at the same time.

Multi-Winding and Part-Winding Start Motors

28-800 Rules for Multi-Winding and Part-Winding Start Motors. Rules 28-802 to 28-812 apply to the installation of multi-winding and part-winding start motors.

28-802 Permanent Connection. Where a multi-winding motor is used with windings connected in a permanent configuration, it shall be treated as a single winding motor with ratings corresponding to the winding configuration used.

28-804 Conductor Sizes

(1) The circuit conductors on the supply side of the controller for a multi-winding or part-winding start motor shall be of a size specified by Rule 28-106 for the largest full load current of any winding configuration provided by the controller as connected.

(2) Each conductor run from the controller to the motor shall be of the size specified by Rule 28-106 for the largest full load current of any winding or winding configuration which it must supply.

28-806 Overcurrent Protection

(1) Each ungrounded conductor on the supply side of the controller shall be protected by an overcurrent device rated or set in accordance with Rule 28-200 for the largest full load current rating of any winding configuration provided by the controller as connected.

(2) Each ungrounded conductor run from the controller to the motor shall be protected by an overcurrent device rated or set in accordance with Rule 28-200 for the largest full load current of any winding configuration served by the conductor so protected, unless the overcurrent device required by Subrule (1) adequately protects it.

28-808 Overload Protection

(1) Each winding or configuration shall be provided with overload protection in accordance with Rules 28-300 to 28-310 inclusive, rated or set at not more than 125 per cent of the full load current rating of the winding or configuration so protected, or at not more than the values given in Table 26 for a motor of equal rating.

(2) For a part-winding start motor, separate overload devices need not be supplied for each winding, provided that overload devices are:

- (a) Located in the circuit feeding that winding which is used for starting;
- (b) Arranged to de-energize both windings when an overload occurs; and

- (c) Selected in accordance with the motor or equipment manufacturers recommendation or of a rating not exceeding 50 per cent of the value given in Column 4 of Table 26, whichever is greater.

28-810 Controls. Each multi-winding or part-winding start motor shall be provided with starting and control equipment in accordance with Rules 28-500, 28-502 and 28-506, except that:

- (a) The controller shall be specifically approved for use with the motor which it controls;
- (b) Where separate control equipment is provided for each winding or configuration, the individual controllers shall be rated in horsepower (or locked rotor current) not less than the rating of the winding or configuration controlled by each, and interlocks shall be provided where necessary to prevent simultaneous operation of controllers not intended to be so operated; or
- (c) The starting and control equipment for each primary winding of a part-winding start motor shall have a horsepower (or locked rotor current) rating not less than that of the motor, unless specifically approved for use with that motor.

28-812 Disconnecting Means. Each multi-winding motor and its control equipment shall be provided with disconnecting means in accordance with Rules 28-600 to 28-604 except that, for the purpose of Rule 28-602, the horsepower (or locked rotor current) rating of the motor shall be that for the winding or configuration having the largest horsepower (or locked rotor current) rating and, the full-load current rating of the motor shall be that for the winding or configuration having the largest full-load current rating.

Protection and Control of Generators

28-900 Disconnecting Means Required for Generators. Generators shall be equipped with an indicating switch or circuit breaker by means of which the generator and all protective devices and control apparatus are able to be disconnected entirely from the circuits supplied by the generator except where;

- (a) The driving means for the generator can be readily shut down; and
- (b) The generator is not arranged to operate in parallel with another generator or other source of voltage.

28-902 Protection of Constant-Voltage Generators

(1) Constant-voltage generators, whether direct current or alternating current shall be protected from excess current by overcurrent devices, except that:

- (a) Where the type of apparatus used and the nature of the system operated make protective devices inadvisable or unnecessary, protective

devices need not be provided if the failure to provide them would be lawful under Rule 2-030;

- (b) Where an alternating current generator and a transformer are located in the same building, and are intended to operate as a unit for stepping up or stepping down voltage, the protective devices shall be permitted to be connected to the primary or to the secondary of the transformer.

(2) Subrule (1) shall not apply to exciters for alternating-current machines.

28-904 Generator Not Driven by Electricity. Where a generator not driven by electricity supplies a 2-wire grounded system, the protective device shall be capable of disconnecting the generator from both conductors of the circuit.

28-906 Balancer Sets. Where a 3-wire direct-current system is supplied by 2-wire generators operated in conjunction with a balancer set to obtain a neutral, the system shall be equipped with protective devices which disconnect the system in the event of an excessive unbalancing of voltages.

28-908 3-Wire Direct-Current Generators

(1) Three-wire direct current generators, whether shunt or compound wound, shall be equipped with:

- (a) A 2-pole circuit breaker with two tripping elements; or
- (b) A 4-pole circuit breaker connected in the main-and-equalizer leads and tripped by two tripping elements.

(2) The circuit breaker shall be connected so as to be actuated by the entire armature current.

(3) One tripping element shall be connected in each armature lead.

SECTION 30—INSTALLATION OF LIGHTING EQUIPMENT

30-000 Scope. This Section is supplementary to, or amendatory of, the general requirements of this Code and applies to installations as follows:

- (a) Interior lighting equipment—Rules 30-100 to 30-822; and
- (b) Outdoor lighting equipment—Rules 30-900 to 30-1122.

INTERIOR LIGHTING EQUIPMENT

General

30-100 General. Rules 30-100 to 30-822 apply to:

- (a) The installation of interior lighting fixtures,

lampholders, pendants, rosettes, incandescent filament lamps, electric discharge lamps; and

- (b) The wiring and electrical equipment used in conjunction therewith.

30-102 Voltage

(1) Circuit voltages shall not exceed 150 volts-to-ground in dwelling units.

(2) In other than dwelling units, the branch circuit voltage shall not exceed the voltage-to-ground of a nominal system voltage of 347/600Y.

30-104 Protection

(1) Incandescent medium-base luminaires and incandescent medium-base lampholders shall not be connected to a branch circuit protected by overcurrent devices rated or set at more than 15 amperes.

(2) Notwithstanding Subrule (1), in other than dwelling units, incandescent and medium-base luminaires and incandescent medium-base lampholders shall be permitted to be connected to a branch circuit protected by an overcurrent device rated or set at not more than 20 amperes.

(3) Subrule (1) shall not apply to medium-base lampholders which form an integral part of a luminaire having mogul-base lampholders.

(4) Incandescent mogul-base luminaires and mogul-base lampholders shall not be connected to a branch circuit protected by overcurrent devices rated or set at more than 40 amperes.

(5) Fluorescent luminaires shall not be connected to a branch circuit protected by overcurrent devices rated or set at more than 15 amperes except for circuits supplying fluorescent luminaires only, where the luminaire wiring and ballasts are enclosed in metal, the rating of the overcurrent protection may exceed 15 amperes but shall not exceed 20 amperes.

(6) High intensity discharge (HID) luminaires which incorporate mogul-base lampholders shall not be connected to a branch circuit protected by overcurrent devices rated or set at more than 40 amperes.

Location of Lighting Equipment

30-200 Near or Over Combustible Material

(1) Lighting fixtures installed where combustible material is liable to be stored shall be equipped with shades or guards so as to limit the temperature to which the combustible material may be subjected to a maximum of 90 degrees Celsius.

(2) Luminaires and lampholders installed under the conditions of Subrule (1) shall be of the unswitched type.

(3) Where luminaires or lampholders are installed over readily combustible material, every luminaire

and lampholder shall be controlled by an individual wall switch, but a wall switch may control more than one luminaire or lampholder if every luminaire and lampholder is located at least 2.5 metres above floor level, or located or guarded so that the lamps cannot be readily removed or damaged.

(4) Switches and lampholders installed under the conditions of Subrule (1) shall have no exposed wiring.

30-202 In Show Windows

(1) No luminaire having exposed wiring other than a luminaire of a chain suspension type shall be used in a show window.

(2) No lampholder having a paper or fibre lining shall be used in a show window.

(3) Exposed flexible cord or fixture wire shall not be used to supply permanently installed lighting fixtures in show cases or wall cases.

30-204 In Clothes Closets

(1) Every luminaire installed in a clothes closet shall be located on the ceiling or on the front wall above the door of the closet, unless mounted on the trim or sidewall of the doorway and approved for the application.

(2) Electric luminaires of the pendant type shall not be installed in a clothes closet.

Installation of Lighting Equipment

30-300 Live Parts

(1) Luminaires, lampholders, and rosettes shall be installed so that no live part is exposed to contact while they are in use.

(2) Where lampholders and switches have exposed accessible terminals, they shall not be installed in metal luminaire-canopies or in open bases of portable lamps.

30-302 Supports

(1) Every luminaire, lampholder, and rosette shall be securely supported.

(2) Where a luminaire weighs more than 6 pounds or exceeds 16 inches in any dimension, it shall not be supported by the screw-shell of the lampholder.

(3) Where the weight of a luminaire does not exceed 25 pounds it shall be permitted to be supported directly by an outlet box or by an outlet box that is mounted on a bar hanger.

(4) Where a luminaire, weighs more than 25 pounds, it shall be supported independently of the outlet box, or by means of an acceptable fixture hanger with integral outlet box.

30-304 Outlet Boxes to be Covered

(1) Every outlet box used with lighting equipment shall be provided with a cover or covered by a luminaire-canopy, lampholder, rosette, or other device.

(2) Where any part of a combustible wall or ceiling is exposed between the edge of a luminaire-canopy or pan and an outlet box, the part of the wall or ceiling shall be covered with noncombustible material.

30-306 Wiring Space

(1) Every luminaire-canopy and outlet box shall be installed so as to provide adequate space for conductors and connections.

(2) Every luminaire shall be so constructed and installed that conductors in the luminaire and outlet box are not subjected to temperatures greater than those for which the conductors are approved.

30-308 Recessed Luminaires

(1) The recessed portion of every recessed luminaire enclosure shall be at least 12.5 millimetres from combustible material at every point other than at a point of support.

(2) Every recessed luminaire shall be so installed that adjacent combustible material is not subjected to temperatures in excess of 90 degrees Celsius.

(3) Where a luminaire is recessed in noncombustible material in a building of noncombustible construction, the noncombustible material may be subjected to temperatures of not more than 150 degrees Celsius but the luminaire shall be plainly marked as approved for the service.

(4) Recessed luminaires shall not be used when blanketed with thermal insulation unless the luminaires are marked and approved for this use.

30-310 Circuit Connections

(1) Every luminaire shall be installed so that the connections between the luminaire conductors and the branch circuit conductors may be inspected without disconnecting any part of the wiring unless the connection employs a plug and receptacle.

(2) Luminaires weighing more than 4.5 kilograms shall be installed so that the branch circuit wiring connections and the grounding connections will be accessible for inspection without removing the luminaire supports.

(3) Branch circuit conductors within 75 millimetres of a ballast within the ballast compartment shall have a maximum allowable conductor temperature of not less than 90°C.

30-312 Luminaire as a Raceway

(1) Branch circuit conductors run through a luminaire shall be contained in a raceway which is an integral part of the luminaire and which meets the requirements for a lighting fixture raceway, except that the conductors of a 2-wire, 3-wire, or 4-wire branch circuit supplying the luminaires may be carried through:

- (a) An installation of fixtures approved and marked for end-to-end assembly to form a continuous channel; or
- (b) Fixtures which are connected together by acceptable wiring methods.

(2) Ballasts located within lighting fixtures referred to in Subrule (1) shall be deemed to be sources of heat and the conductors supplying the fixtures shall:

- (a) Have a voltage rating not less than 600 volts;
- (b) Have a temperature rating not less than 90 degrees Celsius;
- (c) Be not smaller than No. 14 AWG; and
- (d) Be of a type listed in:
 - (i) Table 19, as being suitable for use in raceways; or
 - (ii) Table 11, as being suitable for use in accordance with this Rule, provided the conductors are not smaller than No. 14 AWG and do not extend beyond the luminaires through raceways more than 2 metres long.

(3) Notwithstanding Subrule (2), non-metallic sheathed cable may be used for supplying luminaires provided it has a temperature rating of 90 degrees Celsius.

30-314 Polarization of Luminaires

(1) A luminaire shall be wired so that all screw-shells of its lampholders are connected to the same luminaire conductor or terminal, which shall be connected either to the grounded circuit conductor, if one exists, or to ground, by a separate connection, providing that an isolating (2-winding) type transformer or ballast is used but, if no grounded circuit conductor exists, the lampholders shall be supplied from an isolating (2-winding) type transformer or ballast with the screw-shells separately connected to ground.

(2) Notwithstanding Subrule (1), where a high-intensity discharge lamp ballast supplies two lamps in series, the screw-shell of one lampholder need not be at ground potential, provided that removal of its lamp isolates the screw-shell.

(3) Notwithstanding Subrule (1), where an approved luminaire assembly incorporating a guard or

other means to prevent accidental contact with bare live parts while inserting or removing the lamps is provided:

- (a) Connection of the screw-shell to the grounded non-current-carrying metal parts of the luminaire is not required; and
- (b) An isolating (2-winding) transformer or ballast is not required.

30-316 Combustible Shades and Enclosures. Every luminaire having a combustible shade or enclosure shall be installed so as to provide an adequate air space between the lamps and the combustible shade or enclosure.

30-318 Minimum Height of Low Luminaires

(1) Where a rigid luminaire or lampholder is located at a height of less than 2.1 metres above the floor and is readily accessible, the luminaire or lampholder shall be protected from mechanical injury by a guard or by location.

(2) A short flexible drop light or luminaire may be used in place of the rigid luminaire in Subrule (1).

30-320 Luminaires Exposed to Flying Objects. Where luminaires are installed in gymnasiums or similar locations where the lamps are normally exposed to damage from flying objects, the lamp shall be guarded by one of the following means:

- (a) Metal reflectors that effectively protect the lamps;
- (b) Metal screens;
- (c) Enclosures of armoured glass or suitable plastic material.

30-322 Canopy Switches. Canopy switches shall only be attached to luminaires and luminaire-canopies having knockouts suitably constructed and located for the accommodation of such switches, or they may be located in the chain.

30-324 Luminaires in Damp or Wet Locations

(1) Luminaires installed in damp or wet locations shall be approved for such locations and be so marked.

(2) Luminaires suitable for use in wet locations may also be used in damp locations.

30-326 Lighting Equipment in Damp Locations or Near Grounded Metal

(1) Where lampholders or luminaires are installed in damp locations or within 2.5 metres vertically or 1.5 metres horizontally of laundry tubs, plumbing fixtures, steam pipes or other grounded metal work or grounded surfaces, the lampholders or luminaires shall

be controlled by a wall switch, except as permitted in Subrule (2).

(2) A lampholder having an outer shell of insulating material, or a luminaire, installed under the conditions of Subrule (1), may have an integral switch if the operating means for the switch is suitably insulated from live parts and, if of the pullchain type, conforms to Rule 30-610.

(3) Switches (including wall switches) for controlling lampholders or fixtures covered by Subrule (1) shall not be located within 1 metre of a shower or bathtub.

30-328 Stair Lighting in Dwelling Units

(1) Except as provided in Subrule (2), every stairway in a dwelling unit shall be lighted and where the stairway has four or more risers, the lighting shall be controlled by 3-way wall switches or the functional equivalent located at the head and foot of the stairway.

(2) The stairway lighting for basements or cellars that do not contain a finished area nor lead to an outside entrance or built-in garage, and which serve not more than one dwelling unit, is permitted to be controlled by a single switch located at the head of the stairs.

30-330 Totally-Enclosed Gasketed Luminaires. Incandescent totally-enclosed gasketed luminaires, unless marked as suitable for the purpose, shall not be mounted on a combustible ceiling.

Wiring of Lighting Equipment

30-400 Wiring of Luminaires

(1) All electrical wiring on or within a luminaire shall be:

- (a) Neatly arranged without excess wiring;
- (b) Not exposed to mechanical injury; and
- (c) Arranged so that it is not subjected to temperatures above those for which it is approved.

(2) No joint or tap shall be located within an arm or stem of a luminaire.

30-402 Colour Coding. Notwithstanding the requirements of Sections 0, 4, and 10 with regard to the colours used for distinguishing and identifying conductors, a continuous-coloured tracer in the braid of an individual braided conductor is permitted for the supply conductors of a luminaire; the colour of the tracer being black, white, and green for the ungrounded, identified and grounding conductors respectively.

30-404 Conductor Insulation. Luminaires shall be wired with conductors at least No. 18 AWG, having insulation suitable for the voltage and temperatures to which the conductors may be subjected.

30-406 Conductors on Movable Parts

(1) Stranded conductors shall be used on chain fixtures and other movable parts of lighting equipment.

(2) Conductors shall be arranged so that the weight of the lighting fixture or the movable parts does not place undue tension on the connections.

(3) All conductors which supply movable parts of lighting equipment shall be protected against mechanical injury.

30-408 Pendent Conductors for Incandescent Filament Lamps

(1) Where pendent lampholders having permanently attached leads are used with other than festoon wiring, they shall be hung from separate stranded rubber- or thermoplastic-insulated pendent conductors which are connected directly to the circuit conductors but supported independently thereof.

(2) Where thermoplastic-insulated pendent conductors are used in locations where they may be subjected to temperatures lower than -10°C they shall be of a type approved for the purpose.

(3) Where the pendent conductors supply mogul or medium-base screw-shell lampholders, they shall be not smaller than No. 14 AWG.

(4) Where the pendent conductors supply intermediate or candelabra-base lampholders other than approved Christmas-Tree and decorative lighting-outfits, the conductors shall be not smaller than No. 18 AWG.

(5) Where the pendent conductors are longer than 900 millimetres, they shall be twisted together.

30-410 Wiring of Recessed Luminaires

(1) Conductors having insulation suitable for the temperature encountered shall be used for wiring recessed luminaires.

(2) Branch circuit conductors having insulation suitable for the temperature encountered are permitted to be run directly to the luminaire.

(3) Tap connection conductors shall:

(a) Have insulation suitable for the temperatures encountered;

(b) (i) Be not smaller than No. 18 AWG copper run in a factory installed raceway; or

(ii) Be not smaller than No. 14 AWG copper if the raceway is provided but not factory assembled to the luminaire;

(c) Extend at least 150 millimetres from the raceway; and

(d) Be installed in a raceway extending at least 450 millimetres but not more than 2 meters from the luminaire, and terminate in an outlet box located not less than 300 millimetres from the luminaire.

(4) The outlet box referred to in Subrule (3) (c) shall be accessible as required by Rule 12-3018, and if access is through the opening for mounting the luminaire, or through some other opening in the ceiling, this opening shall be not less than 32,000 square millimetres with no dimension less than 200 millimetres and the outlet box shall be mounted within 350 millimetres of the opening.

(5) A supply connection box forming part of an approved fixture assembly shall be accessible in accordance with Rule 12-3018, and if access is through the opening for mounting the fixture, the following requirements shall be met:

(a) The electrical components of the luminaire shall be capable of extraction through the opening for service; these components shall include the lampholder, the leads to the lampholder, and the connections in the supply connection box; and

(b) The cover of the supply connection box shall be capable of removal by a hand tool held below the ceiling.

(6) Branch circuit conductors shall not pass through the supply connection box forming part of an approved fixture assembly unless the fixture is approved and marked for the purpose.

30-412 Wiring of Ceiling Outlet Boxes

(1) Branch circuit conductors used for the wiring of all ceiling outlet boxes on which a lighting fixture is, or may be mounted, shall have:

(a) insulation suitable for 90 degrees Celsius;

(b) insulation suitable for at least 60 degrees Celsius for boxes;

(i) Located in unheated concrete slabs;

(ii) Remote from a fixture;

(iii) Mounted in or on vertical walls; or

(iv) In barns or other damp locations;

(c) insulation suitable for at least 75 degrees Celsius for boxes located in cable-heated concrete ceilings.

(2) For the purpose of compliance with this Rule, the ampacity of the conductors referred to in Subrule (1) shall be limited to the ampacity of 60 degrees Celsius wire.

(3) Notwithstanding Subrule (1), conductors having insulation suitable for 90 degrees Celsius will not be required for:

- (a) Boxes located in concrete slabs;
- (b) Boxes remote from a fixture;
- (c) Boxes mounted in or on vertical walls; or
- (d) Boxes in barns or other damp locations;

except where the boxes are located in cable-heated concrete ceilings.

30-414 Wiring of Show Window Luminaires

(1) Where show window luminaires are closely spaced, they are permitted to be connected to a conductor suitable for the purpose which is listed in Table 11, with a temperature rating of not less than 125 degrees Celsius.

(2) The connection of show window luminaires to the circuit conductors shall be in a junction box.

(3) The junction box shall be maintained at a sufficient distance from the luminaire to ensure that the circuit conductors are not subjected to temperatures in excess of their rating.

Grounding of Lighting Equipment

30-500 Grounding. Non-current-carrying metal parts of luminaires and associated equipment shall be grounded in accordance with Section 10.

Rosettes and Lampholders

30-602 Lampholder Rating with Incandescent Lamps

(1) Every medium-base lampholder shall have a rating of 660 watts, 250 volts.

(2) Where medium-base lampholders are not of special heat-resisting construction, they shall not be used with incandescent lamps rated in excess of 300 watts.

(3) Where medium-base lampholders are used with incandescent lamps rated at 300 watts, the lamps shall be provided with a heat-deflecting disc or equivalent device.

(4) Mogul-base lampholders shall not be used with incandescent lamps rated at more than 1,500 watts.

30-604 Connections to Lampholders. The identified conductor, if present, shall be connected to the lampholder screw-shell.

30-606 Conductor Mechanical Protection. Where a metal lampholder is attached to a flexible cord, the inlet for the flexible cord shall be equipped with an insulating bushing but if the lampholder is provided with a side outlet, a metal grommet may be used.

30-608 Switched Lampholders Used on Unidentified Circuits. Where lampholders of the switched type are used on unidentified 2-wire circuits tapped from the ungrounded conductors of multi-wire circuits, the switching devices of the lampholders shall disconnect both conductors of the circuit simultaneously.

30-610 Switched Lampholders With Pull-Type Mechanisms. On switched type lampholders employing pull-type mechanisms, the operating means shall be:

- (a) Cords made of approved insulating materials;
- (b) Cords of approved insulating materials, or chains with links of approved insulating material, connected to metal chains as close as possible to where the chains emerge from the enclosure; or
- (c) Metal chains without insulating links provided that the lampholder is approved as not requiring insulating links.

30-612 Lampholders in Wet and Damp Locations

(1) Where lampholders are installed in wet or damp locations, they shall be of the weatherproof type.

(2) Where lampholders installed in wet or damp locations are of insulating material, they shall be capable of resisting mechanical shock.

30-614 Approved Rosettes. Separable rosettes which make possible a change in polarity shall not be used.

30-616 Rosettes in Wet or Damp Locations. Where rosettes are installed in wet or damp locations, they shall be of the weatherproof type.

30-618 Portable Handlamps

(1) Where a lampholder of the portable handlamp type is supplied through a flexible cord, the lampholder shall be of moulded composition or other type approved for the purpose.

(2) Every portable handlamp shall be equipped with a handle of moulded composition or other approved material.

(3) Where portable handlamps are subject to mechanical damage or may come in contact with combustible material, they shall be equipped with a substantial guard attached to the lampholder or to the handle.

Electric-Discharge Lighting Systems Operating at 1,000 Volts or Less

30-700 Rules for Discharge Lighting Systems 1000 Volts or Less. Rules 30-702 to 30-714 apply to electrical equipment used with electric-discharge lighting systems operating at 1000 volts or less.

30-702 Oil-Filled Transformers. Transformers of the oil-filled type shall not be used.

30-704 Direct-Current Equipment. Fixtures shall not be installed on a direct-current circuit unless they are equipped with auxiliary equipment and resistors designed for direct-current operation; and the fixtures are so marked.

30-706 Voltages, Dwelling Units. Where equipment has an open-circuit voltage of more than 300 volts, it shall not be installed in dwelling occupancies unless the equipment is designed so that no live parts are exposed during the insertion or removal of lamps.

30-708 Thermal Protection. Lighting fixtures which employ fluorescent lamps shall have thermally protected ballasts except where the ballasts are of simple reactance type.

30-710 Auxiliary Equipment

(1) Reactors, capacitors, resistors, and auxiliary equipment shall be:

- (a) Enclosed within the lighting fixture;
- (b) Enclosed within an accessible, permanently installed, metal cabinet where remote from the luminaire; or
- (c) Acceptable for use without an additional enclosure.

(2) Adequate provision shall be made for the dissipation of heat from enclosed auxiliary equipment and the conductors supplying the auxiliary equipment.

(3) The metal cabinet, if not part of the luminaire, shall be installed as close as possible to the luminaire.

(4) Where display cases are not permanently installed, no part of a secondary circuit shall be included in more than one case.

(5) Where discharge lamp ballasts are located remote from the lighting units, they shall be connected by:

- (a) Conductors of the fixture wire type as listed in Table 11 or building wire type as listed in Table 19:
 - (i) Having a voltage rating not less than 600 volts;
 - (ii) Having a temperature rating not less than 90°C; and
 - (iii) Suitable for pulling into a raceway; or
- (b) A cable having a temperature rating of not less than 90°C as permitted by other Sections of the Code.

30-712 Control

(1) The luminaires and lamp installations shall be controlled by a switch, circuit breaker or contactor.

(2) Where a switch is used, it shall:

- (a) Have a current rating of not less than twice the current rating of the lamps or transformers;
- (b) Be of a type approved with the assembly;
- (c) Be a manually-operated general-use alternating-current switch complying with Rule 14-510;
- (d) Be a switch having an "ac/dc" rating and an "F" rating complying with Rule 14-508; or
- (e) Be a manually operated general use 347 volt ac switch complying with Rule 14-512.

(3) Where a circuit breaker only is used, it shall comply with the requirements of Rule 14-104, and in the case of 15 amperes and 20 amperes branch circuits at 347 volts and less supplying fluorescent luminaires, the circuit breaker shall be suitable for such switching duty and shall be marked "SWD".

(4) Where a contactor is used, it shall have a current rating of not less than twice the current rating of the lamps or transformers unless the contactor is approved as suitable for this use and so marked.

30-714 Branch Circuit Capacity

(1) Where lighting branch circuits supply luminaires employing ballasts, transformers, or auto-transformers, the load on the branch circuits shall be computed on the basis of the total amperes of the units and not on the watts of the lamps.

(2) The aggregate capacity of fixtures connected to a lighting branch circuit shall not exceed 80 per cent of the branch circuit overcurrent protection.

30-715 Overcurrent Protection. In a fluorescent or incandescent lighting circuit protected by overcurrent devices set at 20 amperes, No. 14 AWG copper tap conductors are permitted to supply a single luminaire provided the tap conductors:

- (a) Do not exceed 3 metres in length;
- (b) Have a conductor insulation rating for at least 75 degrees Celsius; and
- (c) Are in non-ventilated raceways where not protected by an enclosure.

30-716 Overcurrent Protection of High-Intensity Discharge Lighting Equipment. Overcurrent protection shall not be provided in a high-intensity discharge luminaire or separate ballast box unless the combination is approved for the purpose and so marked.

Electric-Discharge Lighting Systems Operating at More Than 1,000 Volts

30-800 Rules for Discharge Lighting Systems, More than 1,000 Volts. Rules 30-802 to 30-822 apply to electrical equipment used with electric-discharge lighting system operating at more than 1,000 volts.

30-802 Voltages, Dwelling Units. Where equipment has an open-circuit voltage of more than 1000 volts, it shall not be installed in dwelling units.

30-804 Control

(1) The luminaires and lamp installations shall be controlled singly or in groups by an externally operated switch or circuit breaker which opens all ungrounded primary conductors.

(2) The switch or circuit breaker shall be:

- (a) Installed within sight of the fixtures or lamps; or
- (b) Provided with a means for locking it in the open position.

(3) The switch shall:

- (a) Have a current rating of not less than twice the current rating of the transformer or transformers controlled by it;

(b) Be of a type approved for the purpose;

(c) Be a manually-operated general-use alternating-current switch complying with Rule 14-510;

(d) Be a switch having an "ac/dc" rating and an "F" rating complying with Rule 14-508; or

(e) Be a manually operated general use 347 volt ac switch complying with Rule 14-512.

(4) The circuit breaker shall comply with the requirements of Rule 14-104.

30-806 Transformer Rating

(1) Every transformer and ballast shall have a secondary open-circuit voltage of not more than 15,000 volts, except that every transformer and ballast of the open-core-and-coil type shall have a secondary open-circuit voltage of not more than 7,500 volts.

(2) The secondary current rating shall be not more than 240 milliamperes, except that, where the secondary open-circuit voltage exceeds 7,500 volts, the secondary current rating shall not be more than 120 milliamperes.

30-808 Liquid-Filled Transformers. Transformers of the liquid-filled type shall not be used unless they are filled with a nonflammable liquid.

30-810 Transformers, Secondary Connection

(1) The high-voltage windings of transformers operating at more than 1,000 volts shall not be connected in series or in parallel, but where each of two transformers has one end of its high-voltage winding grounded and connected to the enclosure, the high-voltage windings may be connected in series to form the equivalent of a mid-point grounded transformer.

(2) The grounded end of each high-voltage winding shall be connected by an insulated stranded copper conductor not smaller than No. 14 AWG.

30-812 Location of Transformers

(1) Transformers operating at more than 1,000 volts shall be accessible for servicing or replacement.

(2) The transformers shall be installed as near to the lamps as practicable.

(3) The transformers shall be located so that adjacent combustible materials are not subjected to temperatures in excess of 90°C.

30-814 Wiring Method

(1) The secondary conductors shall be luminous-tube-sign cable approved for the purpose and for the voltage of the circuit.

(2) Not more than a total of 6 metres of cable shall be run in metal raceway from a transformer.

(3) Not more than a total of 16 metres of cable shall be run in a non-metallic raceway from a transformer.

(4) The conductors shall be installed in conformity with Section 34.

30-816 Transformer Loading. Where the lamps are connected to a transformer, they shall be of such length and characteristics as not to cause a condition of continuous over-voltage on the transformer.

30-818 Lamp Supports

(1) Lamps operating at more than 1,000 volts shall be supported in the manner required by Section 34.

(2) The lamps shall not be installed where they are exposed to mechanical injury.

30-820 Lamp Terminals and Lampholders

(1) Parts which must be removed for lamp replacement shall be hinged or fastened by an approved means.

(2) Lamp terminals and lampholders shall be designed so that the tubing can be replaced with the minimum exposure of bare live parts during re-lamping.

(3) The designs referred to in Subrule (2) need not afford protection against "Space Discharge" shocks as tubes are replaced by trained maintenance staff.

30-822 Marking. Every fixture and every secondary circuit of tubing having an open-circuit voltage of more than 1,000 volts shall be clearly and legibly marked in letters and figures not less than one inch high with the words "CAUTION . . . VOLTS", the rated open-circuit voltage being inserted in figures, in the space between the words.

OUTDOOR LIGHTING EQUIPMENT

General

30-900 General

(1) Rules 30-900 to 30-1128 apply to temporary or permanent outdoor lighting equipment, for either decorative lighting or illumination of outdoor areas,

where protection of the system and safety from shock hazard is the main concern and the fire hazard is of secondary nature.

(2) Rules 30-900 to 30-1128 cover only that portion of the installation which is outside of buildings.

(3) Luminaires which employ fluorescent lamps shall have thermally protected ballasts except where the ballasts are of the simple reactance type.

30-902 Polarization of Luminaire

(1) A luminaire shall be wired so that all screw-shells of its lampholders are connected to the same luminaire conductor or terminal, which shall be connected either to the grounded circuit conductor, if one exists, or to ground, by a separate connection, providing that an isolating (2-winding) type transformer or ballast is used, but if no grounded circuit conductor exists the lampholder shall be supplied from an isolating (2-winding) type transformer or ballast with the screw-shells separately connected to ground.

(2) Notwithstanding Subrule (1), where a high-intensity discharge lamp ballast supplies two lamps in series, the screw-shell of one lampholder need not be at ground potential, provided that removal of its lamp isolates the screw-shell.

(3) Notwithstanding Subrule (1), where an approved luminaire incorporating a guard or other means to prevent accidental contact with bare live parts while inserting or removing the lamps is provided:

- (a) Connection of the screw-shell to the grounded non-current-carrying metal parts of the luminaire is not required; and
- (b) An isolating (2-winding) transformer or ballast is not required.

30-904 Overcurrent Protection of High-Intensity Discharge Lighting Equipment. Overcurrent protection shall not be provided in a high-intensity discharge luminaire or separate ballast box unless the combination is approved for the purpose and so marked.

Permanent Outdoor Floodlighting Installations

30-1000 General

(1) Rules 30-1002 to 30-1036 apply to permanent, outdoor installations of floodlights of 300 watts or larger, using mogul-base lampholders, where the floodlights are mounted on poles or towers.

(2) These Rules are based on the understanding that authorized persons may replace lamps but all other maintenance will be done by qualified persons.

30-1002 Service Equipment

(1) Service equipment shall comply with Section 6

for low-voltage installations, and with Section 36 for high-voltage installations.

(2) Where indoor equipment is installed outdoors, it shall be installed in an acceptable weatherproof enclosure.

30-1004 Wiring Methods, Underground

(1) Wiring underground shall be run:

- (a) Where acceptable, in rigid steel or rigid aluminum conduit;
- (b) In non-metallic underground conduit;
- (c) As lead-sheathed armoured cable, mineral-insulated cable, or aluminum-sheathed cable; or
- (d) As conductors or cable assemblies acceptable for direct earth burial as indicated in Table 19 or, by special permission, for service entrance below ground as indicated in Table 19.

(2) Conductors in conduit shall be of types indicated in Table 19 as being suitable for use in wet locations.

(3) Conductors buried directly in the earth shall be installed in accordance with Rule 12-012.

(4) Suitable corrosion-resistant protection shall be provided for aluminum-sheathed cable and aluminum conduit; and also for mineral-insulated cable, if used where materials coming in contact with the cable may have a deteriorating effect on the sheath.

30-1006 Wiring Methods, on Poles

(1) All electrical equipment on the pole shall be controlled by a switch which can be locked in the "Off" position, and each pole shall be provided with a prominent sign warning against climbing the pole until the switch is "Off" unless all conductors and live parts other than those used for pole top wiring are guarded against accidental contact in one of the following ways:

- (a) The conductors are run in rigid or flexible metal conduit, as mineral-insulated cable, or up the centre of steel, aluminum or hollow concrete poles;
- (b) The conductors and live parts are kept at least 1 metre from the climbing ladder or climbing steps;
- (c) Barriers are provided between conductors or live parts, or both, and the climbing ladder so as to prevent likelihood of contact by the climber.

(2) Conductors run up the centre of poles shall be supported so as to prevent injury to the conductors inside the pole and as to prevent undue strain on the conductors where they leave the pole.

(3) Where vertical conductors, cables and grounding conductors are within 2.5 metres of locations accessible to unauthorized persons, they shall be provided with a covering which gives acceptable mechanical protection.

(4) On wood poles, for grounding conductors from lighting arresters, the protective covering specified in

Subrule (3) shall be of wood moulding or other insulating material giving equivalent protection.

30-1008 Pole Top Distribution Panelboards.

Where there is more than one branch circuit on a pole top, the feeders shall be run to a distribution panelboard which shall be either weatherproof or installed in a weatherproof enclosure, except that the panelboard may be omitted where there are only two branch circuits on a 120/240-volt circuit with common neutral and where there are only three branch circuits on a 120/208-volt, 3-phase, 4-wire circuit.

30-1010 Overcurrent Protection of Pole Top Branch Circuits. Pole top branch circuits shall have overcurrent protection rated or set at no more than 100 amperes.

30-1012 Pole Top Branch Circuit Wiring. Pole top branch circuit wiring, exclusive of leads approved with the floodlights to which they are connected, shall be run:

- (a) As lead-sheathed cable or rubber- or thermoplastic-insulated moisture-resistant types of conductors installed in rigid conduit;
- (b) As mineral-insulated cable or aluminum-sheathed cable; or
- (c) As insulated or uninsulated exposed wiring if such wiring is lawful under Rule 2-030 and,
 - (i) The wiring is supported on suitable insulators;
 - (ii) The wiring is controlled by a switch which can be locked in the "Off" position; and
 - (iii) The pole is provided with a prominent sign warning against climbing it until the switch is "Off".

30-1014 Joints

(1) Open taps and joints may be made in pole top open wiring provided the joint or tap is given insulation equivalent to that on the conductors joined.

(2) There shall be no joints or splices concealed within conduit.

30-1016 Location of Transformers. Transformers shall comply with the following:

- (a) If mounted on floodlight poles, all live parts shall be guarded as required by Rule 30-1006;
- (b) If mounted on poles, the bottom of the transformer shall be at least 5 metres above locations accessible to unauthorized persons;
- (c) If located on platforms on the ground, they shall be completely enclosed so as to prevent access by unauthorized persons or they shall be surrounded by a protecting fence which shall comply with the requirements of Rules 26-300 to 26-324.

30-1018 Overcurrent Protection of Transformers. Overcurrent protection of transformers shall be in accordance with Section 26.

30-1020 Switching of Floodlights. Switches controlling floodlights shall comply with the following:

- (a) A switch on the primary side of a transformer shall be capable of making and interrupting the full load on the transformer;
- (b) Switches controlling floodlights from the secondary side of a transformer shall have a current rating not less than 125 per cent of the current requirements of the floodlights controlled;
- (c) Switches shall be capable of being operated without exposing the operator to danger of contact with live parts, either by remote operation or by proper guarding;
- (d) Switches shall be capable of being locked in the "Off" position.

30-1022 Grounding of Circuits at 300 Volts or Less. Circuits operating at potentials of 300 volts or less between conductors shall be grounded.

30-1024 Grounding of Circuits Above 300 Volts.

Circuits operating at potentials above 300 volts may be grounded provided the installation is acceptable and does not violate any applicable code or standard under a rule or by-law of the supply authority concerning the grounding of permanent outdoor floodlighting installations.

30-1026 Material for Grounding Conductors.

Grounding conductors shall be of material as specified in Rules 10-802 and 10-804.

30-1028 Grounding Methods

(1) A grounded secondary circuit shall be grounded in accordance with Section 10.

(2) The secondary grounded circuit conductor may be grounded by an interconnection to the primary grounded circuit conductor provided:

- (a) The primary is grounded at the transformers; and
- (b) Interconnection is made only at the transformer.

30-1030 Grounding and Bonding of Non-Current-Carrying Metal Parts

(1) All non-current-carrying metal parts within 2.5 metres of locations accessible to unauthorized persons shall be grounded.

(2) Except for isolated metal parts such as cross-arm braces, bolts, insulator pins and the like, non-current-carrying metal parts of electrical equipment at the pole top shall be bonded together and, if within reach of any grounded metal, shall be grounded.

(3) The size of grounding or bonding conductor shall be as specified in Rule 10-812.

30-1032 Installation of Lightning Arresters. Where lightning arresters are installed, they shall be in accordance with Rule 10-1000 and 10-1002 with the addi-

tion that a common grounding conductor and common electrode system may be used for grounding primary and secondary neutrals and lightning arresters.

30-1034 Types of Equipment Permitted. Floodlights, secondary wiring, conduit, conduit fittings, and distribution panelboards shall be approved, and other electrical pole top equipment shall be acceptable types.

30-1036 Climbing Steps. Where it is necessary to climb the pole to replace lamps, permanent climbing steps shall be provided and the lowest permanent step shall be not less than 3.7 metres above locations accessible to unauthorized persons.

Exposed Wiring For Permanent Outdoor Lighting

30-1100 General. Rules 30-1102 to 30-1122 apply to exposed wiring for permanent outdoor lighting other than floodlighting where the circuits are run between buildings, between poles, or between buildings and poles.

30-1102 Conductors. Conductors shall be stranded, not less than No. 12 AWG, and shall be:

- (a) Of a type suitable for exposed wiring where exposed to the weather as specified in Table 19;
- (b) Of the rubber-insulated type suitable for exposed wiring where exposed to the weather as specified in Table 19, when lampholders of a type which puncture the insulation and make contact with the conductors are used; or
- (c) Of the moisture-resistant rubber-insulated type suitable for exposed wiring where exposed to the weather as specified in Table 19, if cabled together and used with messenger cables.

30-1104 Use of Insulators

(1) Conductors shall be securely attached to insulators at each end of the run if a messenger is not used and at intermediate points of support if there are any.

(2) Insulators at the ends of runs shall be of the strain type unless the conductors are supported by messenger cables.

(3) Split knobs shall not be used.

30-1106 Height of Conductors. Conductors supplying lamps in parking lots, used-car lots, drive-in establishments, and similar commercial areas shall be maintained such that the conductors or the bottom of a lamp fed from the conductors, whichever is lower, shall have a clearance of not less than 4 metres above grade at any point in a run, except that where a driveway or thoroughfare exists this clearance shall be not less than 5 metres.

30-1108 Spacing from Combustible Material. Conductors and lampholders shall be maintained at a

distance of not less than 1 metre from any combustible material except for branch circuit conductors at the point of connection to buildings or poles.

30-1110 Spacing of Conductors. Conductors shall be separated at least 300 millimetres from each other by means of insulating spacers at intervals of not more than 4.5 metres unless the conductors are secured to and supported by messenger cables.

30-1112 Lampholders

(1) Lampholders shall be of weatherproof types with moulded insulating bodies.

(2) Lampholders shall be of types having either:

- (a) Permanently attached leads; or
- (b) Terminals of a type which puncture the insulation and make contact with the conductors.

(3) Lampholders having permanently attached leads shall have the connections to the circuit wires staggered where a cabled assembly is used.

30-1114 Protection of Lampholders. Lampholders may be connected to branch circuits protected by overcurrent devices rated or set at not more than 30 amperes provided that the lampholders are:

- (a) For incandescent lamps;
- (b) Of the unswitched type; and
- (c) Rated not less than 660 watts.

30-1116 Use of Messenger Cables

(1) Messenger cables shall be used to support the conductors:

- (a) If lampholders having permanently attached leads are used, and the span exceeds 12 metres; and
- (b) In all cases where lampholders having terminals which puncture the insulation are used.

(2) Messenger cable shall be securely attached at each end of the run and shall be grounded in accordance with Section 10.

(3) Conductors shall be permanently attached to the messenger in an acceptable manner.

30-1118 Construction of Messenger Cables

(1) Messenger cables shall be of galvanized steel, copper-coated steel, or stainless steel and shall be of stranded construction with not less than seven strands.

(2) Galvanized steel shall have a coating of not less than 0.15 ounces per square foot.

(3) The effective ultimate strength of a messenger cable shall be not less than three times the calculated maximum working load, including loading due to ice loads and wind loads, and in no case shall the individual strands be less than:

- (a) 0.046 inch in diameter in the case of galvanized or copper-coated wire; or
- (b) 0.0438 inch in diameter in the case of stainless steel wire.

30-1120 Maximum Size of Lamps. The size of lamps used shall not be in excess of that for which the particular lampholder is approved and in no case more than 150 W.

30-1122 Branch Circuit Loading and Protection

(1) Branch circuits shall be protected by overcurrent devices rated at not more than 30 A.

(2) The total load on a branch circuit shall not exceed 80% of the rating or setting of the overcurrent devices.

SECTION 32—FIRE ALARM SYSTEMS AND FIRE PUMPS

32-000 Scope

(1) This Section applies to the installation of electrical local fire alarm systems emergency voice communication systems and fire pumps in buildings required to have such equipment by the Ontario Building Code.

(2) The requirements of this Section are supplementary to, or amendatory of, the general requirements of this Code.

FIRE ALARM SYSTEMS

32-100 Conductors

(1) Conductors shall be of copper and shall have an ampacity adequate to carry the maximum current that can be provided by the circuit.

(2) Stranded conductors with more than 7 strands shall be bunch-tinned or terminated in compression connectors.

(3) Conductors shall have an insulation rating not less than 300 volts, and shall be not smaller than:

- (a) No. 16 AWG for individual conductors pulled into raceways;
- (b) No. 19 AWG for individual conductors laid in raceways;
- (c) No. 19 AWG for an integral assembly of 2 or more conductors; and
- (d) No. 22 AWG for an integral assembly of 4 or more conductors.

(4) Conductors shall be suitable for the purpose of the type listed in Table 19 except individual conductors smaller than No. 14 AWG copper installed in a

raceway shall be equipment wire of the type listed in Table 11.

32-102 Wiring Method

(1) All conductors of a fire alarm system and emergency voice communication system shall be:

- (a) Installed in metal raceway of the totally enclosed type;
- (b) Incorporated in a cable, having a metal armour or sheath;
- (c) Installed in a nonmetallic raceway of the totally enclosed type, where the raceway is embedded in at least 50 millimetres of masonry or poured concrete or installed underground; or
- (d) Installed in electrical nonmetallic tubing where embedded in at least 50 mm of masonry or poured concrete.

(2) Notwithstanding Subrule (1), conductors installed in buildings of combustible construction in accordance with Rules 12-506 to 12-520, are permitted to be;

- (a) Non-metallic sheathed cables; or
- (b) Fire alarm and signal cable.

(3) The conductors shall be installed so as to be entirely independent of all other wiring and shall not enter a fixture, raceway, box, or enclosure occupied by other wiring, except as may be necessary for connection to:

- (a) The point of supply;
- (b) A signal or emergency voice communication system;
- (c) An ancillary device; or
- (d) A communication circuit.

(4) All wiring of a communication system connected to a fire alarm system to extend the fire alarm system beyond the building, shall conform to the applicable Rules of Section 60 of CSA Standard C22.1-1990.

(5) All conductors contained in the same raceway or cable shall be insulated for the highest voltage in the raceway or cable.

(6) Notwithstanding Subrule (3), conductors of a communication system intended for life safety use and used in conjunction with the fire alarm system, may be installed in the same raceway, fixture, box or enclosure as the fire alarm system conductors.

32-104 Equipment Bonding

- (1) Exposed noncurrent-carrying metal parts of

electrical equipment including outlet boxes, conductor enclosures, raceways and cabinets shall be bonded to ground in accordance with Section 10.

(2) Where a nonmetallic wiring system is used, a bonding conductor shall be incorporated in each cable and shall be size in accordance with Rule 10-814(1).

32-106 Electrical Supervision. Wiring to dual terminals and dual splice leads shall be independently terminated to each terminal or splice lead.

32-108 Current Supply

(1) A fire alarm system shall be supplied by a separate circuit connected as close as practicable, without violating other rules of this Code to:

- (a) The load terminals on the main service disconnect;
- (b) The secondary terminals of the transformer, where transformation is necessary in order to supply a utilization voltage required by the fire alarm system; or
- (c) The terminals of a transfer switch, where the fire alarm system receives emergency power from an emergency power source which also supplies other electrical equipment.

(2) Overcurrent devices and disconnecting means for the separate circuit supplying a fire alarm system shall be clearly identified in a permanent, conspicuous and legible manner as a fire alarm system, and the disconnecting means shall be coloured red and capable of being locked in the on position.

32-110 Installation of Smoke Alarm Devices in Dwelling Units. The following requirements apply to the installation of smoke alarms in dwelling units.

- (a) Except where prohibited by Rule 26-704 and on circuits where ground fault circuit interrupter protection is provided, smoke alarm devices are permitted to be installed in any lighting and receptacle branch circuit in a dwelling unit;
- (b) There shall be no disconnecting means between the smoke alarm device and the overcurrent device for the branch circuit;
- (c) The wiring method for the smoke alarm device, including any interconnection of units and their associated equipment, shall be in accordance with Rules 32-100 and 32-102;
- (d) Notwithstanding Paragraph (c), where a smoke alarm circuit utilizes a Class 2 power supply for the interconnection of the smoke alarms and their associated equipment, Class 2 wiring methods are permitted in buildings of combustible construction, provided that the conductors are installed in accordance with Rules 12-506 to 12-524 inclusive.

FIRE PUMPS

32-200 Conductors. Conductors shall be of copper and shall have the ampacity in accordance with the applicable requirements of Sections 4 and 28.

32-202 Wiring Method. All conductors to fire pump equipment shall be:

- (a) Installed in metal raceways of the totally enclosed type; or
- (b) Incorporated in a cable, having a metal armour or sheath, of a type listed in Table 19.

32-204 Supply Service

(1) Notwithstanding Rule 6-102(1), two supply services of the same voltage and characteristics are permitted to be run to a building by one supply authority where a separate supply service for fire pump equipment is required by the Ontario Building Code.

(2) Where a separate supply service for fire pump equipment is installed, each service box shall be marked in accordance with Rule 6-214.

32-206 Consumer's Service for Fire Pumps

(1) Notwithstanding Rule 6-200, where fire pump equipment is connected to a consumer's service a separate service box for the fire pump equipment is permitted.

(2) A service box for fire pump equipment is permitted to be located remote from other service boxes.

(3) A service box for fire pump equipment shall be labelled in a conspicuous, legible and permanent manner with the words "FIRE PUMP".

32-208 Overcurrent Protection

(1) The rating or setting of the overcurrent protection for services, feeders and branch circuits are permitted to be selected to carry locked rotor current of the motor(s) plus the rated current of associated equipment on the circuit continuously and the instantaneous short circuit characteristic is permitted to be selected or set at a minimum of the normal load current of the associated equipment on the circuit plus 12 times the full load current of the motor(s).

(2) Where the locked rotor current is not marked on a motor, 600 per cent of the rated current of the motor shall be considered to be the locked rotor current.

32-210 Overload and Overheating Protection. The branch circuit conductors and control conductors or equipment of a fire pump do not require overload or overheating protection and are permitted to be protected by the motor branch circuit overcurrent device(s).

32-212 Ground Fault Protection. Ground fault protection shall not be installed in a fire pump circuit.

SECTION 34—SIGNS AND OUTLINE LIGHTING**34-000 Scope**

(1) This Section applies to signs and outline lighting wherein the sources of light are:

- (a) Incandescent lamps;
- (b) Fluorescent lamps;
- (c) High-voltage luminous discharge tubes, including neon tubes; and
- (d) High-intensity discharge lamps.

(2) The requirements of this Section are supplementary to or amendatory of the general requirements of this Code.

(3) The word "sign" when used throughout this Section includes those of the through-wall type.

General Requirements

34-010 Construction. Signs and outline lighting equipment manufactured wholly or in part in the field shall conform in construction to the requirements of CSA Standard C22.2 No. 2-1956, Electric Signs.

34-012 Disconnecting Means. Each outline lighting installation, and each sign other than the portable type, shall be provided with an externally operable disconnecting means which shall:

- (a) Open all ungrounded conductors;
- (b) Be suitable for conditions of installation such as exposure to weather; and
- (c) Be integral with the sign or outline lighting.

34-014 Rating of Disconnecting Means and Control Devices. Switches, flashers and similar devices controlling transformers and ballasts shall be either of a type approved for the purpose, or have a current rating not less than twice the current rating of the transformer or ballasts.

34-016 Thermal Protection. Ballasts of the thermally-protected type shall be required for all signs and outline lighting which employ fluorescent lamps except where the ballasts are of the simple reactance type.

34-018 Branch Circuit Capacity. Circuits shall be arranged so that the load imposed by lamps and transformers shall not exceed 80 per cent of the branch circuit overcurrent protection.

34-020 Location

(1) Signs and outline lighting shall be located so that:

- (a) Any person working thereon is not likely to come into contact with overhead conductors;

(b) No part of the sign or its support will interfere with normal work operations performed on electrical and communication utility lines;

(c) No part of the sign or its support is in such proximity to overhead conductors as to constitute a hazard; and

(d) Except as provided for in Subrule (2), no part of the sign, other than its support, is less than 2.2 metres above grade.

(2) Notwithstanding Subrule (1) (d) free standing signs may be mounted with electrical components less than 2.2 metres above grade if mechanical protection is provided to prevent persons or vehicles from coming into contact with the electrical components of the sign.

34-022 Supporting Means

(1) Poles, masts, standards or devices designed as supports that are for use as electrical raceways, shall be approved for the purpose.

(2) The devices referred to in Subrule (1) when used for mechanical support only, must be suitable for the purpose.

34-024 Bonding. All conductive non-current-carrying parts of a sign or outline lighting installation shall be bonded to ground in accordance with the requirements of Section 10, except for conductive parts of letters attached to the building and illuminated from the rear.

34-026 Protection of Sign Leads. Where sign leads pass through the walls or partitions of the sign structure, they shall be protected by incombustible absorption-resisting bushings.

34-028 Installation of Conductors. Conductors for signs and outline lighting shall be installed in accordance with the requirements of Section 12.

34-030 Fuseholders and Flashers. Fuseholders, flashers, and other similar devices shall be enclosed in metal, and shall be accessible without the necessity of removing obstructions or otherwise dismantling the sign.

High-Voltage Luminous-Discharge-Tube Signs and Outline Lighting**34-200 Enclosures**

(1) Enclosures for transformers, switches, timers, relays, sequencing units and other similar devices shall be of metal or of heat and moisture-resistant non-combustible material.

(2) The enclosure in Subrule (1) shall be constructed to prevent the emission of flames or any burning or ignited material.

(3) Openings for ventilation shall be arranged to

comply with the requirements of Subrule (2) and shall be at least 100 millimetres from live parts.

(4) Metal enclosures shall be not less than No. 22 MSG.

(5) At the point where it is intended that the supply connections be made, the enclosure shall be of not less than No. 16 MSG.

(6) Each enclosure housing a transformer shall be marked in accordance with the requirements of Section 2.

34-202 Protection of Uninsulated Parts. Doors or covers accessible to the general public and which give access to uninsulated parts of indoor signs or outline lighting, shall be either provided with interlock switches which on the opening of the doors or covers disconnect the primary circuit, or shall be fastened so that the use of other than ordinary tools will be necessary to open them.

34-204 Transformer Voltage

(1) The rated secondary open circuit voltage of transformers shall not exceed 15,000 volts.

(2) In end-grounded transformers, rated secondary open circuit voltage shall not exceed 7,500 volts.

34-206 Open Core-and-Coil Type Transformers. Open core-and-coil type transformers shall only be used indoors.

34-208 Transformers Used Outdoors. Transformers used outdoors shall be of the weatherproof type or shall be enclosed in the sign body or in a separate weatherproof box.

34-210 Transformer Installation

(1) Transformers shall be installed in such locations that they are accessible and capable of being removed and replaced.

(2) Transformers shall be supported by attachment to the enclosure in which they are housed by at least two studs or bolts.

34-212 Transformer Overcurrent Protection

(1) Each transformer shall be protected by an overcurrent device except that two or more transformers may be protected by one overcurrent device if their combined load does not exceed 12 amperes.

(2) Where additional overcurrent devices for the individual protection of transformers in signs are used, they shall be placed either inside or outside the sign structure.

(3) Where exposed to the weather, overcurrent devices protecting transformers shall be of the weatherproof type.

34-214 Transformer Secondary Connection

(1) The high-voltage windings of transformers shall not be connected in parallel.

(2) The high-voltage windings of transformers shall not be connected in series, except that two transformers may have one end of each of their high-voltage windings grounded and connected in series to form the equivalent of a midpoint-grounded transformer, provided that the grounded ends of the high-voltage windings are connected by an insulated copper conductor not smaller than No. 14 AWG.

34-216 High-Voltage Wiring Methods

(1) High-voltage conductors shall be installed in:

- (a) Transformer enclosures;
- (b) Sign enclosures;
- (c) Flexible metallic conduit;
- (d) Rigid conduit; or
- (e) Other types of raceways except for surface raceways.

(2) High-voltage conductors may be run from the ends of gas tubes to the grounded midpoint of transformers which have terminals at the midpoint.

(3) The connections between the high-voltage terminals of the transformers of the midpoint-grounded type and the line ends of gas tubes shall be as short as possible.

(4) There shall be no sharp bends in high-voltage conductors.

(5) All high-voltage conductors installed inside metal sign enclosures shall be of the types permitted by Table 19.

34-218 High-Voltage Conductors in Show Windows and Similar Locations. Notwithstanding Rule 34-216, if high-voltage conductors used with signs, hang freely in the air and are not enclosed in raceways, as in show windows and similar locations, they shall be:

- (a) Located away from the combustible material;
- (b) Located so as to be free from mechanical injury; and
- (c) Enclosed in noncombustible insulating sleeving.

34-220 Length of Cable from Transformers

(1) No cable in a metal raceway from a transformer to other parts of the sign shall be longer than 6 metres.

(2) No cable in a nonmetallic raceway from a transformer to other parts of the sign shall be longer than 16 metres.

34-222 Connections of High-Voltage Conductors

(1) Connections of high-voltage conductors to neon tubing outside the building or structure shall be made by means of:

- (a) An approved electrode receptacle;
- (b) A direct connection to the neon tubing outside the building or structure wall providing that not more than 100 millimetres of high-voltage wiring extends beyond the end of the raceway; or
- (c) Any other approved method.

(2) Under Subrule (1) (b), the portion of the high-voltage wiring beyond the raceway shall be enclosed in an acceptable insulating sleeve from a point 50 millimetres within the raceway up to and including the connection to the neon tubing and shall be retained in place.

(3) The connection in Subrule (1) (b) shall be electrically secure and provided with acceptable wrapping of insulating tape.

34-224 Bonding of Metal Electrode Assembly Housing. Notwithstanding Rule 10-510(3), where flexible metal conduit is used to provide mechanical protection for the high voltage conductor run between an electrode receptacle and a transformer and from one electrode receptacle to another electrode assembly, the flexible metal conduit is permitted to serve as the bonding means for the metal electrode assembly housing if the flexible metal conduit terminates in a connector that ensures a positive bonding connection.

SECTION 36—HIGH-VOLTAGE INSTALLATIONS

General

36-000 Scope

(1) This Section applies to installations operating at voltages in excess of 750 volts.

(2) The supply authority must be consulted before proceeding with any such installation in compliance with any applicable code or standard under a rule or by-law of the supply authority concerning such consultation.

(3) This Section is additional to the requirements of this Code for installations at potentials of 750 volts or less.

(4) This Section does not affect construction details of factory fabricated assemblies approved under Part II of this Code.

36-002 Special Terminology. In this Section the following definitions apply:

- (a) "Station" means an assemblage of equipment at one place, including any necessary housing, for the conversion or transformation of electrical energy and for connection between two or more circuits;
- (b) "Maximum ground fault current" means the magnitude of the greatest fault current that may flow between the grounding grid and the surrounding earth during the life of the installation;
- (c) "Potential rise of ground grid" means the product of the ground grid resistance and the maximum ground fault current that flows between the station ground grid and the remote earth;
- (d) "Touch voltage" means the voltage difference between a grounded metallic structure and a point on the earth's surface separated by a distance equal to normal maximum horizontal reach;
- (e) "Step voltage" means the voltage difference between two points on the earth's surface separated by a distance of one pace, assumed to be 1 metre, in the direction of maximum voltage gradient;
- (f) "Ground grid conductor" means the horizontally buried conductor used for interconnecting ground rods or similar equipment which form the station ground electrode;
- (g) "Boundary fence" means a fence forming the boundary of a property or area, but not part of a station fence enclosure.

36-004 Guarding. Live parts of electrical equipment shall be accessible to authorized persons only.

36-006 Warning Notices

(1) A permanent legible warning notice carrying the wording "DANGER — HIGH VOLTAGE" or "DANGER..... VOLTS" shall be placed in a conspicuous position:

- (a) At electrical equipment vaults, electrical equipment rooms, areas or enclosures;
- (b) On all high-voltage conduits and cables at points of access to conductors; and
- (c) On all cable trays containing high-voltage conductors with the maximum spacing of warning notices not to exceed 10 metres.

(2) Permanent legible signs shall be installed at isolating equipment warning against operating it while carrying current, unless the equipment is interlocked so that it cannot be operated under load.

(3) Suitable warning signs shall be erected in a conspicuous place adjacent to fuses, warning operators not to replace fuses while the supply circuit is energized.

(4) In addition to the provisions of Subrules (1), (2) and (3), metal enclosed switchgear and equipment shall bear the following external markings:

(a) With each installation of a metal-enclosed assembly, there shall be provided a permanently legible diagram giving the following information:

(i) A block outline defining each cubicle or cell, all to a minimum scale of 1 to 10 but the drawing containing the block outline shall not be smaller than approximately 450 by 550 millimetres;

(ii) A single line diagram overlaid on the block outline indicating the physical, where possible, and electrical location of the high voltage components in the power circuit;

(iii) All possible sources of voltage to the installation under normal or emergency conditions and the locations of devices for isolating such power supplies; and

(iv) Interlocks and their functions;

(b) Each complete cell or cubicle on the diagram shall be suitably identified and cross referenced to its counterpart in the metal-enclosed assembly which shall bear the identifying mark both front and rear applied to non-removable portions of the unit and if the marking will be obscured by a removable coverplate the marking shall be repeated on the coverplate;

(c) The diagram shall be mounted conspicuously on or adjacent to the metal-enclosed assembly and shall be protected from damage by being framed under glass or by some other suitable means;

(d) On all cells in which the supply is from a source external to the assembly, there shall be installed on panels which when opened make high voltage components accessible, conspicuous warning signs having the following wording:

(i) Where a panel gives access to parts which cannot be de-energized and visibly isolated except by the Supply Authority: "WARNING—HIGH VOLTAGE—DO NOT REMOVE UNLESS PERMITTED BY SUPPLY AUTHORITY" or "COMPARTMENT FOR SUPPLY AUTHORITY USE ONLY", or

(ii) Where a panel gives access to parts which can be de-energized and visibly isolated by the owner: "WARNING—HIGH VOLTAGE—DO NOT ENTER THIS COMPARTMENT UNLESS VISIBLY ISOLATED BY DISCONNECTING DEVICE (.....)"

(the designation or location of disconnect device to be inserted in blank space); and

(e) Notwithstanding Paragraph (d), where the equipment consists solely of a single cubicle or metal-enclosed unit substation containing only one set of high voltage switching devices, diagrams are not required but conspicuous warning signs shall be installed on panels which when opened make high voltage components accessible:

(i) As in (d) (i) where the supply can be disconnected only by a Supply Authority; or

(ii) As in (d) (ii) where the owner is in control of the supply into the equipment.

Wiring Methods

36-100 Conductors

(1) Bare conductors or insulated conductors not enclosed in grounded metal shall be used only:

(a) outdoors;

(b) in electrical equipment vaults constructed in accordance with Rules 26-350 to 26-356; or

(c) in cable tray in accordance with Subrule (2)(d).

(2) Except as permitted in paragraphs (1)(b), and (1)(c) of this rule conductors used indoors or outdoors and attached to buildings shall be:

(a) installed in metal conduit;

(b) installed in metal enclosed busway;

(c) cables having a continuous metal sheath or of the interlocking metal armour type; or

(d) Type TC tray cable installed in cable tray in accordance with Rule 12-2204.

(3) High-voltage type TC cables shall not be installed in the same cable tray with low-voltage conductors except where the high-voltage TC cables are separated from the low-voltage conductors by a barrier of sheet metal not less than 0.528 inch thick (No. 16 MSG).

(4) The location of conductors encased or embedded in concrete or masonry shall be indicated by acceptable permanent markers set in the walls, floors, or ceilings.

(5) Where the coverings are of a conductive nature they shall be stripped back from the terminals sufficiently to prevent leakage of current.

(6) Service conductors shall have a mechanical strength not less than that of No. 6 AWG hard drawn copper.

36-102 Radii of Bends. The minimum bending radii measured at the innermost surface of the bend for permanent training of cables during installation shall be as shown in Table 15.

36-104 Shielding of Thermoset Insulated Conductors

(1) Except as permitted in Subrules (2), (3), and (4) shielding shall be provided over the thermoset insulation of each permanently installed conductor with or without fibrous covering or non-metallic jacket, operating at circuit voltages above 2,000 volts phase-to-phase.

(2) Shielding need not be provided for conductors having thermoset insulation where they are directly buried in the soil and operating at circuit voltages not exceeding 3,000 volts phase-to-phase, provided that the insulation or the non-metallic jacket, if provided, is of ozone and discharge-resistant type.

(3) Shielding need not be provided for conductors having thermoset insulation where the circuit voltage does not exceed 5,000 volts phase-to-phase, where the conductors are installed on insulators or in metallic raceways and bound together, in electrical equipment rooms, electrical equipment vaults, metal-enclosed switchgear assemblies, and similar permanently dry locations where the conductor run does not exceed 15 metres.

(4) Shielding need not be provided for conductors having thermoset insulations which are:

- (a) Intended for operation at not more than 5,000 volts phase-to-phase;
- (b) Intended and installed for permanent duty; and
- (c) Provided in either single- or multi-conductor cable construction with:
 - (i) A metallic sheath; or
 - (ii) Metallic armour of the interlocking type, the wire type or the flat tape type.

(5) Subject to Rule 10-302, metallic sheaths, metallic shielding, metal armour, metal conduit and metal fittings shall be bonded together and connected to ground.

36-106 Supporting of Exposed Conductors. Bare conductors and insulated conductors unless enclosed in or in contact with grounded metal shall be mounted on suitable insulating supports capable of withstanding the short circuit stresses liable to be imposed by the supply system.

36-108 Spacing of Exposed Conductors

(1) Bare conductors, and insulated conductors unless enclosed in or in contact with grounded metal, other than those within or at the point of connection to apparatus or devices shall be spaced to provide

a clearance under all operating conditions in accordance with Tables 30 and 31 between:

- (a) Live parts of opposite polarity; and
- (b) Live parts and all other structural parts other than the conductor supports.

(2) Where the conductors mentioned in Subrule (1) are connected to apparatus or devices having terminal spacings less than those shown in Tables 30 and 31, the conductors shall be spread out so as to attain the required spacings at the first point of support beyond such terminals.

36-110 Guarding of Live Parts and Exposed Conductors

(1) Bare conductors, insulated conductors unless enclosed in or in contact with grounded metal, and other bare live parts shall be:

- (a) Accessible only to authorized persons; and
- (b) Isolated by elevation or by acceptable barriers.

(2) Where the conductors or live parts mentioned in Subrule (1) are isolated by elevation, the elevations and clearances maintained shall be as specified in Tables 32, 33, and 34 except that:

- (a) For voltages in excess of those specified in Tables 32, 33 and 34, the elevations and clearances maintained shall be in accordance with the requirements of CSA Standard CAN3-C22.3 No. 1-M87, Overhead Lines; and
- (b) For conductors crossing highways, railways, communication lines, and other locations not covered in this Code, the elevations and clearances maintained shall be in accordance with the requirements of CSA Standard CAN3-C22.3 No. 1-M87, Overhead Lines.

(3) For a given span, clearances specified in Tables 32 and 34 shall be increased by 1 per cent of the amount by which the span exceeds 50 metres.

36-112 Terminating Facilities. Suitable terminating facilities shall be provided to protect cables from harm due to moisture or mechanical damage.

36-114 Joints in Sheathed Conductors or Cables

(1) Splices or taps in sheathed conductors or cables shall have the conductor or cable covered with insulation and shall have shielding, when used, electrically and mechanically equivalent to that on the conductors or cables joined.

(2) For conductors or cables having a metallic or conducting sheath, provision shall be made for continuity of the sheath over the splice or tap unless the joint is made in a suitable splicing box which maintains the continuity of the bonding path.

36-116 Elevator Shafts

(1) High-voltage conductors shall not be installed in elevator shafts.

(2) The conductors may be installed in conduit embedded in the masonry walls of the hoistway but the conduit shall be surrounded throughout the entire length of its run by not less than 50 millimetres of masonry or concrete.

Control and Protective Equipment

36-200 Service Equipment Location. Service equipment shall be installed in an acceptable location and in compliance with applicable codes and standards under a rule or by-law of the supply authority concerning service equipment location and, in the case of a building, shall be at the point of service entrance.

36-202 Rating and Capacity. The type and ratings of circuit breakers, fuses and switches, including the trip settings of circuit breakers and the interrupting capacity of overcurrent devices shall be:

- (a) Acceptable; and
- (b) Sized in accordance with the appropriate Rules of this Code for transformers, capacitors, motors and other electrical equipment.

36-204 Overcurrent Protection

(1) Each consumer's service, operating unit of apparatus, feeder and branch circuit shall be provided with overcurrent protection having adequate rating and interrupting capacity in all ungrounded conductors by one of the following:

- (a) A circuit breaker;
- (b) Fuses preceded by a group-operated visible break load-interrupting device capable of making and interrupting its full load rating and which may be closed with safety to the operator with a fault on the system; or
- (c) Fuses preceded by a group-operated visible break air-break switch capable of interrupting the magnetizing current of the transformer installation and which may be closed with safety to the operator with a fault on the system and so interlocked with the transformers secondary load interrupting device to prevent its operation under load.

(2) Fuses shall be accessible to authorized persons only.

36-206 Indoor Installation of Circuit Breakers, Switches and Fuses

(1) Circuit breakers, switches, and fuses installed indoors shall be in an acceptable enclosure unless installed in a room of non-combustible construction.

(2) In addition to the requirements of Subrule (1), dielectric liquid-filled equipment located indoors shall be installed in accordance with Rules 26-012 and 26-246.

36-208 Interlocking of Fuse Compartments. Compartments containing fuses shall have the cover (or door) interlocked with the isolating or disconnecting means so that:

- (a) Access cannot be had to the fuses unless the isolating or disconnecting means immediately ahead of the fuses is in the de-energized position; and
- (b) The switch cannot be placed in the closed position until the fuse compartment has been closed.

36-210 Protection and Control of Instrument Transformers

(1) Instrument potential transformers shall have overcurrent protection as required by Rule 26-258.

(2) A suitable disconnecting means shall be provided on the supply side of fuses used for the protection of instrument potential transformers.

36-212 Outdoor Installations

(1) High-voltage switches not of the metal enclosed type which are assembled in the field shall be spaced according to Table 35.

(2) Horn-gap switches shall be mounted in a horizontal position and be capable of being locked in the open position.

(3) High-voltage fuses shall be spaced according to Table 35.

36-214 Disconnecting Means

(1) Where conductors fed directly by an outdoor station enter a building, either:

- (a) A load-breaking device shall be installed indoors at the entry of the conductors to the building; or
- (b) A load-breaking device at the outdoor service shall be capable of being tripped or operated from within the building.

(2) Unless of the draw-out type each circuit breaker and each load-break switch having contacts which are not visible for inspection in both the open and closed positions shall be provided with a group-operated isolating switch on the supply side which shall:

- (a) Be provided with the means for adequate visible inspection of all contacts in both the open and closed position;
- (b) Be interlocked so that it cannot be operated under load; and
- (c) Be provided with positive position indicators.

(3) Group operated isolating switches complying with Subrule (2) shall be provided where required to prevent the possibility of feedback.

(4) In a double-ended station forming part of an industrial establishment, isolation meeting the requirements of Subrule (2) shall be provided to prevent feedback to a high voltage circuit through the transformer secondary power circuits.

Grounding and Bonding

36-300 Material and Minimum Size of Grounding Conductor and Ground Grid Conductor and Connections

(1) Except as provided for in Subrule (2) bare copper conductors shall be used for grounding purposes and shall be not smaller than those specified in Rules 36-302 to 36-310 and Table 51.

(2) Notwithstanding the requirement of Subrule (1) galvanized steel, copper-weld or other metallic conductor may be permitted for grounding purposes providing:

- (a) Its current-carrying rating is equal to or greater than that of the copper conductor specified in Rules 36-302 to 36-310;
- (b) Consideration is given to galvanic action if such conductors are buried in the ground or come in contact with dissimilar metals;
- (c) The method of bolting or connecting such conductors to each other and to other surfaces is such as to maintain the required current-carrying capacity for the life of the electrode design; and
- (d) The necessary supporting data is supplied.

36-302 Station Ground Electrode

(1) Every outdoor station shall be grounded by means of a station ground electrode which shall meet the requirements of Rule 36-304 and shall:

- (a) Consist of a minimum of four driven ground rods not less than 3 metres long and $\frac{3}{4}$ inch in diameter spaced at least the rod length apart and where practicable located adjacent to the equipment to be grounded;
- (b) Have the ground rods interconnected by ground grid conductors not less than No. 2/0 AWG bare copper buried to a maximum depth of 600 millimetres below the rough station grade and a minimum depth of 150 millimetres below the finished station grade; and
- (c) Have the station ground grid conductors in Subrule 1(b) connected to all non-current-carrying metal parts of equipment and structures and shall where practicable form a loop around the equipment to be grounded.

(2) Notwithstanding Subrule (1), a buried station ground electrode other than described in Subrule (1) is

permitted to be used where having regard for public safety and protection of property, the installation is not dangerous.

(3) Where it is not practicable to locate the station ground electrode adjacent to the station as described in Subrule (1) the station ground electrode is permitted to be remote from the station; and

- (a) Two grounding conductors of a minimum of No. 2/0 AWG copper shall connect the ground electrode to the station equipment in such a way that should one grounding conductor or ground electrode be damaged, no single metal structure or equipment frame may become isolated; and
- (b) In locations with system short circuit currents exceeding 30 000 amperes, the grounding conductor wire size shall be increased and shall be such that it will not suffer thermal damage or be a fire hazard under the severest fault conditions occurring on the system thus grounded in accordance with Rule 36-300.

(4) Every indoor station shall be grounded by means of a station ground electrode:

- (a) In accordance with Subrules (1), (2), or (3); or
- (b) If it is not practicable to ground an indoor station in accordance with Subrules (1), (2), or (3) and the indoor station receives its supply from a main station on the same property, the station equipment shall be connected to the main station ground electrode in accordance with Subrule (3).

(5) All parts of the indoor station which are required to be grounded shall be connected together by copper conductors of not less than No. 2/0 AWG.

36-304 Station Ground Resistance

(1) The maximum lawful resistance of the station ground electrode shall be determined by the maximum fault current in the station, and the ground resistance shall be such that under all soil conditions the maximum fault current conditions shall limit the potential rise of the station ground grid to 5,000 volts, or, in special circumstances where this level cannot be reasonably achieved, such higher voltage not exceeding the maximum insulation level of the communication equipment as is lawful under Rule 2-030.

(2) In addition to the requirements of Subrule (1) the touch and step voltage within the station grounding electrode area shall not exceed tolerable values as specified in Table 52.

(3) The resistance of the station ground electrode at each station shall be measured after completion of construction and changes shall be made if necessary to ensure that the maximum permissible resistance of Subrule (1) is not exceeded.

36-306 Connections to the Station Ground Electrode

(1) All non-current carrying metallic equipment and structures forming part of the station shall be bonded to the station ground electrode to prevent the build-up of dangerous potential differences between the equipment or structures and the nearby earth.

(2) All metallic items forming part of the station shall be connected to the station ground electrode as follows:

- (a) Metallic structures:
 - (i) Single columns or pedestal type (pipe, etc.) structures shall be bonded to ground by a bonding conductor not less than No. 2/0 AWG copper; and
 - (ii) Single and multi-bay structures shall be bonded to ground at each column by a bonding conductor not less than No. 2/0 AWG copper;
- (c) Apparatus mounted on both metal and non-metal structures (e.g., wood pole, concrete, etc.):
 - (i) Tanks or frames of transformers, generators, motors, circuit breakers, reclosers, instrument transformers, switchgear, and other equipment shall be bonded to ground by bonding conductors of not less than No. 2/0 AWG copper.
 - (ii) Metal bases of all gang-operated switches shall be bonded to ground by a bonding conductor of not less than No. 2/0 AWG copper (for switch handles see Rule 36-308);
 - (iii) The grounding of metal bases single-pole fuse cutouts and isolating switches is optional, providing, having regard for public safety and protection of property, the installation is not dangerous.
- (d) Lightning arresters;
 - (i) The lightning arresters shall be connected to the station ground electrode by a grounding conductor of not less than No. 2/0 AWG copper;
 - (ii) Lightning arrester grounding conductors shall be as short, straight and direct as practicable;
 - (iii) Where lightning arresters are for the protection of high-voltage cable and cable sheath, the lightning arrester grounding conductor shall be connected to metal potheads and/or metal sheath or armour or shielding of all cables;

- (e) A metallic water main inside or adjacent to the station ground electrode area, shall be grounded by at least one copper conductor of not less than No. 2/0 AWG copper, at intervals not exceeding 12 metres;
 - (f) The non-current-carrying parts of metallic equipment such as:
 - (i) Cable sheaths, cable armour, shield, bonding conductors, potheads, raceways, pipe work, screen guards and switchboards by copper conductor of not less than No. 4 AWG;
 - (ii) Meter, instrument and relay cases, when mounted on insulated panels, by a copper conductor of not less than No. 10 AWG;
 - (iii) The metal frame and all exposed metal work on buildings within or forming part of the station shall be:
 - (A) Bonded to the station ground electrode by a minimum of No. 2/0 AWG copper in at least two places and at intervals not exceeding 12 metres along the building perimeter;
 - (B) Where a building forms part of the fence or is located outside the fence but is electrically connected to the station ground electrode area by means of cables, conduits, or other metallic means, a loop of No. 2/0 AWG copper shall be installed around and at a distance of at least 1 metre from the building and it shall be connected to the metal work of the building at intervals not exceeding 12 metres along the perimeter; and
 - (C) The loop shall be buried horizontally to a maximum depth of 600 millimetres and it shall be connected to the station ground electrode at two points with a minimum No. 2/0 AWG copper and where practicable a layer of clean crushed stone 1 metre in width and 150 millimetres in depth covering the area immediately outside the building and surrounding the whole building is recommended;
 - (g) Steel rails of railway spur tracks entering an outdoor station ground electrode area by a copper conductor of not less than No. 2/0 AWG with the part of the spur track located outside the station ground electrode area isolated from the station ground electrode by insulating joints.
- (3) A transmission line overhead ground wire is permitted to be either:
- (a) Isolated from the station ground electrode; or

- (b) Connected to the station ground electrode with a grounding conductor of not less than No. 2/0 AWG copper which, notwithstanding Rule 36-300(1), is permitted to be insulated.

(4) A line neutral conductor on grounded neutral systems by a grounding conductor with not less than the equivalent current-carrying capacity of the neutral conductor.

(5) A transformer neutral on grounded neutral systems, by a copper grounding conductor not less than No. 2/0 AWG, which shall also be of sufficient size and capacity to carry the maximum ground fault current of the transformer in accordance with Table 51.

36-308 Grounding of Gang-Operated Switch Handles

(1) The operating handle of all gang-operated switches not enclosed in metal housings shall be bonded to ground in an acceptable manner by one of the following methods:

- (a) An approved, multi-revolution bonding device connected to the station ground electrode by a grounding conductor having a current-carrying capacity of not less than No. 2/0 AWG copper; or
- (b) The operating shaft shall be connected to the station ground electrode by a combination of extra flexible conductor, braid, and/or stranded conductor not less than No. 2/0 AWG copper.

(2) In addition to the requirements of Subrule (1) the touch voltage shall be maintained at a tolerable level as specified in Table 52 at the location where the operator is normally standing and shall be done in an acceptable manner as follows:

- (a) By the use of a metallic gradient control mat connected to the operating handle bonding conductor as required in Subrule (1) by two separate conductors each not less than No. 2/0 AWG copper; and
- (b) The gradient control mat:
- (i) Shall be so positioned that the operator will not be required to step from the mat during the operation of the switch;
- (ii) Shall be placed on a minimum of 150 millimetres of crushed stone on the ground;
- (iii) Shall have dimensions approximately 1.2 metres by 1.8 metres; and
- (iv) Is permitted to be covered by a layer of crushed stone, asphalt, or concrete not exceeding 150 millimetres in depth, where the mat is not located inside a station fence.

36-310 Bonding of Wire Fence Enclosures of Outdoor Stations

(1) The fence shall be bonded to ground by means of a conductor loop of not less than No. 2/0 AWG located outside the fence, and where practicable 600 millimetres from the fence line and buried to a depth of 150 to 200 millimetres below rough grade, on which a layer of clean crushed stone 1 metre in width and 150 millimetres in depth covering the area both inside and outside the fence shall be placed where necessary to maintain the touch voltage within the tolerable value as specified in Table 52.

(2) Ground rods shall be installed at intervals not exceeding 12 metres, and each ground rod shall be connected to the fence ground loop conductor by a conductor of not less than No. 2/0 AWG copper and the conductor loop shall be bonded to the fence by a tap conductor at each end post, corner post, gate post, and fence posts at intervals not exceeding 12 metres by a conductor of not less than No. 2/0 AWG copper.

(3) The tap conductor at each hinge gate post shall be clamped or bonded to the gate frame by a copper braid or a flexible copper conductor of at least No. 2/0 AWG.

(4) The tap conductor shall be bonded to the fence post, the bottom tension wire, the fence fabric for which the conductor may be woven in at least two places, the top rail and each strand of barbed wire with the connection to the bottom tension wire, the fence fabric and barbed wire strands made with bolted or equivalent connectors, and with the top rail connections bonded at every joint by a jumper equivalent to No. 2/0 AWG copper.

(5) The fence ground loop:

- (a) Shall be connected to the station ground electrode at not less than two places where the fence is located within 1.5 metres of the station equipment or ground grid conductors or when metallic pipes, sheathed cables or other conducting materials are present, or where it is necessary to lower the station ground electrode resistance to the required level;

- (b) Need not be connected to the station ground electrode unless the conditions of Subrule (5) (a) are present.

(6) When the fence ground loop is connected to the station ground electrode (Subrule (5) (a)) and when the fence forms part of a metallic boundary fence, the boundary fence shall be isolated from the station fence by a insulated fenced section of at least 2.4 metres in length.

ELEVATORS, ESCALATORS AND SIMILAR EQUIPMENT

38-000 Scope. This Section applies to the installation of electrical equipment for passenger and freight ele-

vators, including dumbwaiters, escalators, moving walks, freight platform lifts, and elevating devices for the handicapped, and is supplementary to, or amendatory of, the general requirements of this Code.

38-002 Voltage Limitations

(1) No part of any electric circuit having a circuit voltage in excess of 300 volts shall be used on any car or control circuit, except that higher voltages may be used for frequencies of 25 through 60 cycles alternating current or for direct current, provided that the current in the system cannot, under any conditions, exceed 8 milliamperes for alternating current or 30 milliamperes for direct current.

(2) Electric circuits in machine rooms or penthouses for the operation of motors and brakes shall have a potential not in excess of 750 volts, provided that if it exceeds 300 volts, all control and signal circuits shall be insulated from the power circuits.

(3) Electric circuits fed from motor generators, rectifiers or control transformers shall be grounded as required in Section 10.

38-004 Isolation of Live Parts. All live parts of electrical apparatus in hoistways, at the landings or in or on the cars of elevators and dumbwaiters, or in the wellways or at the landings of escalators shall be enclosed to protect against accidental contact.

38-006 Insulation of Conductors

(1) Conductors from the control panel to the main circuit resistors not located within the control panel shall be of a type suitable for use in raceways as indicated in Table 19 and shall be suitable for operation at a temperature of not less than 90°C having a rating not less than 600 volts, and be flame tested.

(2) Except for conductors in travelling cables, the insulation of all conductors in hoistways, in or on cars of elevators and dumbwaiters, in wellways of escalators and moving walks and in machine rooms of elevator dumbwaiters, escalators and moving walks, shall be flame tested and suitable for use in damp locations as indicated in Tables 11 and 19.

(3) The voltage rating of insulation of all conductors shall be suitable for the voltage to which the conductors are subjected.

38-008 Travelling Cables. Travelling cables used as flexible connections between elevator or dumbwaiter cars and their hoistways shall be elevator cable, suitable for use in dry locations only or damp or dry locations, as applicable, as indicated in Table 11.

38-010 Conductor Sizes

(1) In travelling cables the minimum size conductors shall be:

- (a) For lighting circuits, No. 14 AWG copper or No. 12 AWG aluminum except that smaller conductors may be used in parallel provided that the ampacity is equivalent to at least that of No. 14 AWG copper; and
- (b) For all operating, control, and signal circuits, No. 20 AWG copper.

(2) Except as specified in Subrule (1), the minimum size of conductors for operating, control and signal circuits shall be No. 24 AWG copper.

(3) The size of branch circuit conductors supplying individual elevator motors shall be determined in accordance with Rule 28-106 and Table 27, except that for long runs, the cross-sectional area shall be such that the voltage drop at rated current does not exceed 3 per cent of no-load voltage at the motor terminals.

(4) The size of feeder conductors supplying two or more motors shall be determined in accordance with Rule 28-108 and Table 62.

38-012 Branch Circuits for Car Lighting, Accessories, Heating and Air Conditioning

(1) In passenger elevators, at least one branch circuit shall be provided solely for the lighting and accessories on each car.

(2) Where air conditioning and heating units are installed on the car they shall be supplied by separate branch circuits.

(3) The overcurrent device protecting each branch circuit shall be located in the elevator machine room.

38-014 Wiring Methods in Hoistways, Machine Rooms and Escalator Wellways

(1) Conductors located in hoistways, machine rooms, and escalator wellways, except travelling cables, shall be installed in rigid metal conduit, electrical metallic tubing or metal wireways, except that flexible metal conduit or armoured cable is permitted if not subject to mechanical damage.

(2) Only conductors used in connection with the operation of the elevator or dumbwaiter supply or feeder conductors, including wiring for signals, hoistway-fire detection, communication with the car and for lighting and ventilating the car, or such other conductors as are lawful under Rule 2-030, are permitted to be installed inside a hoistway.

(3) Mineral-insulated cable or aluminum-sheathed cable may be used if located so that there is no liability of damage to the sheath.

(4) Travelling cable to the elevator is permitted to be installed in the hoistway and on the car as fixed wiring without the use of conduit or other raceway providing it is suitably supported from damage.

(5) Extra hard usage cable as listed in Table 11 is permitted as flexible connections on escalator or moving walk controllers and disconnecting means installed in conformity with Rules 38-044(6) and 38-050(3).

38-016 Wiring Methods on Cars

(1) Conductors on elevators and dumbwaiter cars shall be run in rigid metal conduit, electrical metallic tubing or wireways, except that:

- (a) Short runs of flexible metal conduit or armoured cable may be used where they are securely fastened in place and not exposed to oil or grease;
- (b) Flexible cord listed in Table 11 as suitable for hard usage is permitted to be used between fixed wiring on the car and switching or sensing devices on the door or gate, and between the fixed car top inspection light and an extension light controlled by the same switch, provided it is securely fastened and so located as to not be subject to mechanical injury.
- (c) Mineral-insulated cable or aluminum-sheathed cable may be used if located so that there is no liability of damage to the sheath.

(2) Where conductors may be in contact with oil or grease, they shall have oil-resistant insulation.

(3) Where cord permitted in Subrule (1) contains an identified conductor and/or a conductor showing green, or green yellow combination coloured insulation, such conductors may be used for control circuitry, provided that by painting, taping, or other suitable means, their colouring has been suitably altered wherever they are made accessible, or visible, through removal of the outer covering of the cord.

38-018 Wiring Methods Between Motors, Machine Brakes, Valves, Generators, and Control Panels

(1) Conductors of circuits between motors, machine brakes, valves, generators, and control panels may be run without additional protection, provided the conductors are:

- (a) Not over 2 metres long;
- (b) Bound together and supported at intervals not more than 1 metre; and
- (c) Not located so as to be subject to mechanical damage or to temperatures in excess of their ratings.

(2) Where motor-generators are used with elevator motors and both are located adjacent to or underneath the control equipment and are provided with extra-length terminal leads, the leads may be connected directly to the controller or motor generator terminal studs, and the provisions of Rule 4-004 in respect of ampacity shall not apply, but no lead shall be longer than 2 metres.

38-020 Wiring Methods on Sidewalk Elevators. Where the top-terminal-landing opening is in the sidewalk or other area exterior to the building, the following special requirements apply:

- (a) All electrical wiring shall be installed in rigid conduit or electrical metallic tubing except that:
 - (i) Lead-sheathed armoured cable, not

exceeding 1.5 metres in length, may be used as permitted in Rule 38-014 (1); and

- (ii) Mineral-insulated cable or aluminum-sheathed cable may be used if located so that there is no liability of damage to the sheath;

- (b) All boxes and fittings in the hoistway shall be weatherproof;
- (c) All electrical equipment in or on the car shall be weatherproof;
- (d) Travelling cables, where used between the car and hoistway wiring shall be elevator cable, suitable for damp locations as indicated in Table 11.
- (e) Slack rope switches where required, lower normal-terminal and lower final-terminal hoistway limit switches, and pit stop switches, shall be located as far above the bottom of the pit as practicable.

38-022 Grouping of Conductors. Conductors of elevator operating, control, signal, telephone and lighting circuits may be run in the same raceway or travelling cable provided that all conductors are insulated for the maximum voltage found in the cable or raceway system.

38-024 Raceway Supports. Supports for raceways in hoistways or escalator wellways shall be securely fastened to the guide-rail, hoistway or wellway construction.

38-026 Fittings

(1) Where conduit or electrical metallic tubing is installed in the open, split fittings or clamp fittings may be used provided the conduit or tubing does not contain feeders.

(2) Where conductors leave raceways, the provisions of Rules 12-3002, 12-3006, and 12-3008 shall apply.

(3) No terminal fitting shall be installed less than 150 millimetres from the floor in machine rooms.

38-028 Suspension of Travelling Cables

(1) Where the length of unsupported cable exceeds 60 metres, the cable shall be so supported at each end that the weight of the unsupported cable is borne by the steel support filler incorporated in the cable assembly.

(2) Where the length of unsupported cable does not exceed 60 metres, the cable shall be supported at each end by:

- (a) Looping around supports; or
- (b) A means capable of automatically gripping the cable in reaction to tension applied by the cable weight.

38-030 Hazardous Locations. In hazardous locations, travelling cables shall terminate in cabinets approved for the class and group of the location and shall enter such enclosures through heavy-duty rubber-bushed threaded connector bushings which have been designed for this use.

38-032 Mechanical Protection. Whenever the travelling cables in swinging may come in contact with projections or corners of the building construction in the hoistway, such as "I" beams, beams, ledges and the like, such irregular surfaces shall be made smooth by covering with heavy gauge sheet metal or by other acceptable means.

38-034 Disconnecting Means

(1) Disconnecting means shall be provided for the opening of all ungrounded conductors of:

- (a) The drive motor and its ventilation and control circuits in each elevator, dumbwaiter and escalator operating individually or as one of a group.
- (b) The signal dispatch and scheduling circuitry, common to a group of elevators, dumbwaiters, or escalators; and
- (c) The branch circuit supplying the lighting and accessories in each elevator car and such circuit shall not be controlled by the disconnecting means described in paragraphs (a) or (b).

(2) Each disconnecting means shall be an externally operated fusible switch or a circuit breaker and shall be equipped with means for locking it in the open position.

(3) The overcurrent protection shall be coordinated with any upstream overcurrent protective device.

(4) Means shall be provided on the switch or circuit breaker to indicate the disconnected position.

(5) The disconnecting means shall be located where it is visible on entry to the machinery area and readily accessible to authorized persons.

(6) When the disconnecting means required by Subrule (1)(a) is not visible from, or is located more than 9 metres from the machine, controller or motor generator set, an additional manually operable switch:

- (a) shall be installed so that it is visible from, or adjacent to, the remote equipment;
- (b) shall prevent the machine or motor generator set from starting when in the open position; and
- (c) is permitted to be connected in the control circuit.

(7) Each disconnecting means shall be plainly marked to indicate the machine or circuit that it controls.

(8) The disconnecting means serving an escalator or moving walk controller shall be installed in the same location as the controller.

38-036 Emergency Power

(1) An elevator shall be permitted to operate from an emergency power supply in the event of normal power supply failure provided the elevator operates on such emergency power in accordance with the emergency power system requirements of CSA Standard CAN3-B44-M85, Safety Code for Elevators.

(2) The disconnecting means required by Rule 38-034 shall disconnect the emergency power source and the normal power source.

(3) In the case of hydraulic elevators where emergency power is supplied from a second source for lowering the car only, the disconnecting means required in Rule 38-034 shall be provided with an auxiliary contact that is positively opened mechanically, the opening not being solely dependant on springs, and connected in the control circuit to prevent movement of the car when the disconnecting means is open.

38-038 Overload Protection for Motors

(1) Each ac drive motor for an elevator, dumbwaiter, and escalator, and each ac drive motor of a motor-generator set supplying current to the machine-drive motor, shall be provided with overload protection in accordance with Rule 28-302.

(2) Overload devices shall be provided for each dc machine-drive motor where:

- (a) Motor-generator set provides power to two or more drive motors;
- (b) The capacity of the motor-generator set is such that the protection provided in accordance with Subrule (1) is inadequate; or
- (c) The drive motor of a variable-voltage machine is subject to overcurrent at reduced voltage during levelling.

(3) The overload devices required by Subrule (2) (c) may be omitted where a time-delay relay is provided in the levelling circuit for purposes of disconnecting the power supply at the motor-generator set within an interval which will prevent damage to motor windings.

38-040 Overcurrent Protection of Operating, Control and Signal Circuits

(1) Overcurrent protection for operating and control circuits shall be provided in accordance with Section 14.

(2) Overcurrent protection for signal circuits shall be provided in accordance with Section 16.

38-042 Installation of Machines. Elevator, dumbwaiter or escalator machines, controllers, and auxiliary equipment shall be installed in a space which is secured against unauthorized access.

38-044 Installation of Control Panels

(1) There shall be a working space of not less than 600 millimetres, clear of live parts, behind each controller where the back panel of the control cabinet can be removed or opened, and not less than 750 millimetres of working space clear of live parts in front of each controller.

(2) There shall be a clear access of 460 millimetres width from the front to the rear of the controller and if there are any exposed current-carrying parts in this area, they shall be protected by barriers.

(3) Controllers shall be enclosed in cabinets with doors or removable sections and the working space prescribed in Subrule (1) shall apply when the doors are opened or any section is removed.

(4) Controllers may be mounted on, over, or against the machine provided that there is reasonable access to the controller.

(5) Auxiliary equipment may be placed in front or rear of the controller, provided that the installation of such equipment will not reduce the space requirements of Subrule (1).

(6) An enclosed escalator or a moving walk controller and its disconnecting means is permitted to be installed with less working space than required in Subrule (1) provided that:

- (a) The controller and disconnecting means can be readily removed for maintenance purposes;
- (b) Extra hard usage cable is used as flexible connections; and
- (c) The controller, disconnecting means and external devices are grounded to conform with Rule 38-050(3).

38-046 Bonding of Raceways to Car. Metal raceways attached to the car shall be bonded to metal parts of the car with which they come in contact.

38-048 Bonding of Equipment. The frames of all motors, generators, machines, controllers, and the metal enclosures for all electrical devices shall be bonded to ground.

38-050 Methods of Bonding

(1) Equipment mounted on members of a grounded structural metal frame of a building shall be deemed to be bonded to ground.

(2) Metal car frames supported by metal hoisting cables attached to or running over sheaves or drums of elevator machines shall be deemed to be bonded when the machine is bonded to ground in accordance with Section 10.

(3) Enclosed equipment connected by flexible cables so that it can be readily removed from a

machine space for maintenance as permitted by Subrule 38-044(6), shall be bonded to all connected external devices and to ground by means of an equipment bonding conductor run with the circuit conductors.

38-052 Branch Circuit and Lighting for Machine Rooms

(1) Permanent provision of adequate artificial light shall be made in machine rooms of power elevators.

(2) Illumination shall be not less than 100 lux at floor level.

(3) The machine room lighting switch shall be within easy reach of the entrance to the machine room.

(4) At least one duplex receptacle connected to a 15 ampere branch circuit supplying no other receptacles shall be installed in the machine room.

38-054 Branch Circuit and Lighting for Hoistway Pits

(1) One or more permanent luminaires equipped with a guard of metal, safety glass or suitable plastic material shall be provided in all pits.

(2) The lighting luminaire(s) shall provide an illumination level of at least 100 lux at the pit floor.

(3) A light switch shall be provided and shall be located so as to be accessible from the pit access door.

(4) At least one duplex receptacle connected to a 15 ampere branch circuit supplying no other receptacles shall be installed in each pit.

SECTION 40—ELECTRIC CRANES AND HOISTS**40-000 Scope**

(1) This Section covers such features of the installation of electrical equipment providing circuits for electric cranes, hoists, and monorails which are additional to or amendatory of the general requirements of this Code.

(2) This Section does not cover equipment and wiring of cranes, hoists, and monorails which are assembled and erected in the field and that comply with CSA Standard C22.2 No. 33-M1984, Construction and Test of Electric Cranes and Hoists.

40-002 Supply Conductor Sizes. The size of conductors in raceways or cables supplying main contact conductors or supplying equipment directly shall be determined from Table 58.

40-004 Conductor Protection

(1) Conductors supplying main contact conductors shall be in rigid conduit, electrical metallic tubing, armoured cable, mineral-insulated cable or aluminum-

sheathed cable except as otherwise provided for in Rule 40-018.

(2) Conductors supplying the equipment directly shall comply with Subrule (1) unless a flexible connection is required in which case an acceptable armoured or unarmoured cable or flexible cord, with take-up devices where necessary to prevent damage to the cable or cord and to keep it clear of the operating floor, may be used.

40-006 Overcurrent Protection. Conductors supplying main contact conductors or supplying the equipment directly where there are no main contact conductors shall be provided with overcurrent protection in accordance with the requirements of Rule 28-200 for the motor load plus an allowance in accordance with Rule 14-104 for any other loads if the size of conductors has been increased to provide capacity for the other loads.

40-008 Disconnecting Means. Suitable means which will disconnect all ungrounded conductors of the circuit simultaneously shall be:

- (a) Provided within sight of the main contact conductors or within sight of the equipment if there are no main contact conductors; and
- (b) Accessible and operable from the ground or from the floor over which the equipment operates.

40-010 Main Contact Conductors

(1) Bare main contact conductors shall have an ampacity not less than that of the conductors supplying them and, if wire is used in no case shall they be smaller than:

- (a) No. 4 AWG copper or No. 2 AWG aluminum if the length of contact conductor is 18 metres or less;
- (b) No. 2 AWG copper or No. 1/0 AWG aluminum if the length of contact conductor is greater than 18 metres, unless the intermediate insulating supports are of a clamp type which is capable of providing some strain relief.

(2) Bare main contact conductors may be of hard drawn copper or aluminum wire or may be of steel or other suitable metal in the form of tees, angles, T-rails, or other rigid shapes.

40-012 Spacing of Main Contact Conductors

(1) Bare main contact conductor wires shall be supported so that:

- (a) They will be separated, centre-to-centre:
 - (i) Not less than 150 millimetres for other than monorail hoists, if installed in a horizontal plane;
 - (ii) Not less than 75 millimetres, for monorail hoists, if installed in a horizontal plane; or
 - (iii) Not less than 200 millimetres, if installed in other than a horizontal plane; and

(b) The extreme limit of displacement will not bring them within less than 38 millimetres of the surface wired over.

(2) Rigid main contact conductors shall be supported so that there will be an air space of not less than 25 millimetres between conductors, between conductors and adjacent collectors, and between conductors and the surface wired over.

40-014 Supporting of Main Contact Conductors

(1) Bare main contact conductor wires shall be secured at each end to strain insulators, and shall be supported on insulating supports placed at intervals not exceeding 6 metres except that, where building conditions make the above impossible, the interval between insulating supports may be increased to a maximum of 12 metres if the separation between contact conductors is increased proportionately.

(2) Rigid main contact conductors shall be secured to insulating supports spaced at intervals of not more than 80 times the vertical dimension of the conductor, but in no case greater than 4.5 metres.

40-016 Joints in Rigid Contact Conductors. Joints in rigid main contact conductors shall be made so as to ensure proper ampacity without overheating.

40-018 Use of Track as a Conductor. Monorail, tramrail or crane runway tracks may be used as a main contact conductor or as a supply circuit conductor for one phase of a three-phase alternating-current system if:

- (a) The power for all phases is obtained from an isolating transformer;
- (b) The voltage does not exceed 300 volts;
- (c) The rail serving as a conductor is effectively grounded, preferably, at the transformer, with permissive additional grounding by the fittings used for the suspension or attachment at the rail to the building structure; and
- (d) Any joints in the rail meet the requirements of Rule 40-016.

40-020 Guarding of Contact Conductors

(1) Contact conductors shall be so guarded that inadvertent contact cannot be made with bare current carrying parts or they shall be incorporated in an acceptable enclosed contact assembly.

(2) Guarding of bare contact conductors are not required where a clearance of at least 6 metres between such conductors and grade, floor, or any working surface is provided and maintained.

40-022 Contact Conductors Not to Supply Other Equipment. Contact conductors shall not be used as feeders for any equipment other than that essential for the operation of the cranes, hoists or monorails which they supply.

40-024 Grounding

(1) All exposed non-current carrying metal parts shall be bonded to ground.

(2) Tracks shall be bonded to ground as required by Rule 10-406 or 40-018.

(3) The flexible supply connection permitted in Rule 40-004 (2) shall incorporate a bonding conductor.

SECTION 42—ELECTRIC WELDERS**General**

42-000 Scope. This Section applies to the installation of electric welders and is supplementary to, or amendatory of, the general requirements of this Code.

42-002 Special Terminology. In this Section, the following definitions apply:

- (a) "Rated primary current" means the kilovolt-ampere rating of the welder as shown on the nameplate thereof multiplied by 1000 and divided by the rated primary voltage shown on the nameplate on the welder;
- (b) "Actual primary current" means the current drawn from the supply circuit during each welder operation at the particular heat tap and control setting used; and
- (c) "Duty cycle" means the ratio of the time during which the welder is loaded to the total time required for one complete operation.

42-004 Receptacles and Attachment Plugs. Where a welder is cord connected, the rating of the receptacle and attachment plug is permitted to be less than the rating of the overcurrent devices protecting them, but not less than the ampacity of the supply conductors required for the welder.

Transformer Arc Welders**42-006 Supply Conductors**

(1) The supply conductors for an individual transformer arc welder shall have an ampacity of not less than the value obtained by multiplying the rated primary current of that welder in amperes by a factor of:

- (a) 1.00, 0.95, 0.89, 0.84, 0.78, 0.71, 0.63, 0.55 or 0.45 for welders having a duty cycle of 100, 90, 80, 70, 60, 50, 40, 30 and 20 per cent or less respectively; or
- (b) 0.75 for a welder having a time rating of 1 hour.

(2) The supply conductors for a group of transformer arc welders shall have an ampacity not less than the sum of the currents determined for each welder in the group in accordance with Subrule (1) multiplied by a demand factor of:

- (a) 100 per cent of the two largest calculated currents of the welders in the group; plus
- (b) 85 per cent of the third largest calculated current of the welders in the group; plus
- (c) 70 per cent of the fourth largest calculated current of the welders in the group; plus
- (d) 60 per cent of the calculated currents of all remaining welders in the group.

(3) Lower values than those given in Subrule (2) are permissible in cases where the work is such that a high operating duty cycle for individual welders is impossible.

42-008 Overcurrent Protection for Transformer Arc Welders

(1) Each transformer arc welder shall have overcurrent protection rated or set at not more than 200 per cent of the rated primary current of the welder, unless the overcurrent device protecting the supply conductors meets this requirement.

(2) Each ungrounded conductor shall have overcurrent protection rated or set at not more than 200 per cent of the allowable ampacity of the conductor as specified in Tables 1, 2, 3 or 4, except that the next higher rating or setting may be used where:

- (a) The nearest standard rating of the overcurrent device is less than the rating or setting otherwise required by this Rule; or
- (b) The rating or setting otherwise required by this Rule results in too frequent opening of the overcurrent device.

(3) The maximum rating or setting of the overcurrent device protecting a feeder supplying a group of transformer arc welders shall not exceed a value calculated by determining the maximum rating or setting of the overcurrent device permitted by Subrules (1) and (2) for that welder which is permitted the highest rated overcurrent device of any welder supplied by the feeder, and adding thereto the sum of ampacities as calculated by Rule 42-006 for all other welders in the group.

42-010 Disconnecting Means

(1) A disconnecting means shall be provided in the supply connection of each welder which is not equipped with a disconnecting means mounted as an integral part of the welder.

(2) The disconnecting means shall be a switch or circuit breakers and its rating shall be not less than necessary to accommodate overcurrent protection as specified under Rule 42-008.

Motor-Generator Arc Welders

42-012 Conductors, Protection and Control of Motor-Generator Arc Welders. The rules of Section 4, Conductors, and Section 28, Motors and Generators, shall apply to motor-generator arc welders except that:

(1) The motors may be marked in amperes only; and

(2) Where the controller is built-in as an integral part of the motor-generator set, the controller need not be separately marked provided the necessary data is on the motor nameplate.

(3) The supply conductors for an individual motor generator arc welder shall have an ampacity of not less than the value obtained by multiplying the rated primary current of that welder by a factor of:

(a) 1.00, 0.96, 0.91, 0.86, 0.81, 0.75, 0.69, 0.62 or 0.55 for welders having a duty cycle of 100, 90, 80, 70, 60, 50, 40, 30 and 20 per cent or less respectively; or

(b) 0.80 for a welder having a time rating of 1 hour.

(4) The supply conductors for a group of motor generator arc welders shall have an ampacity not less than the sum of the currents determined for each welder in the group in accordance with Subrule (3) multiplied by a demand factor of:

(a) 100 per cent of the two highest calculated currents of the welders in the group;

(b) 85 per cent of the third largest calculated current of the welders in the group;

(c) 70 per cent of the fourth largest calculated current of the welders in the group; and

(d) 60 per cent of the calculated currents for all remaining welders in the group.

(5) Lower values than those given in Subrule (4) are permissible in cases where the work is such that a high operating duty cycle for individual welders is impossible.

42-014 Supply Conductors for Resistance Welders. The ampacity of supply conductors shall be as follows:

(a) Where an individual seam resistance welder or an individual automatically-fed resistance welder is operated at different times at different values of primary current or duty cycle, the supply conductors shall have an ampacity of not less than 70 per cent of the rated primary current of the welder;

(b) Where an individual manually-operated non-automatic resistance welder is operated at different times at different values of primary current or duty cycle, the ampacity of the supply conductors shall be not less than 50 per cent of the rated primary current of the welder;

(c) Where an individual resistance welder operates at known and constant values of actual primary current and duty cycle, the supply conductors shall have an ampacity of not less than the

value obtained by multiplying the actual primary current by a factor of 0.71, 0.63, 0.55, 0.50, 0.45, 0.39, 0.32, 0.27 or 0.22 for duty cycles of 50, 40, 30, 25, 20, 15, 10, 7.5 and 5 per cent or less respectively;

(d) Where there is a group of resistance welders, the supply conductors shall have an ampacity of not less than;

(i) The sum of the values obtained from paragraph (a), (b) or (c) for the largest welder in the group; and

(ii) 60 per cent of the values so obtained for all of the other welders in the group.

42-016 Overcurrent Protection

(1) Every resistance welder shall have overcurrent protection rated or set at not more than 300 per cent of the rated primary current of the welder unless the overcurrent device protecting the supply conductors gives equivalent protection.

(2) Every ungrounded conductor of a resistance welder shall have overcurrent protection rated or set at not more than 300 per cent of the allowable ampacity of the conductor as specified in Tables 1, 2, 3 or 4, except that the next higher rating or setting may be used where:

(a) The nearest standard rating of the overcurrent devices is less than the rating or setting required by this Rule; or

(b) The rating or setting required by this Rule results in too frequent opening of the overcurrent device.

(3) The maximum rating or setting of the overcurrent device protecting a feeder supplying a group of resistance welders shall not exceed a value calculated by determining the maximum rating or setting of the overcurrent device permitted by Subrules (1) and (2) for the welder allowed the highest overcurrent protection and adding thereto the sum of ampacities as calculated by Rule 42-014 for all other welders in the group.

42-018 Control of Resistance Welders. Every resistance welder shall have installed in its supply circuit a switch or circuit breaker, rated at not less than the rating of the conductors as determined by Rule 42-014, whereby the welder and its control equipment can be isolated from the supply circuit.

42-020 Nameplate Data for Resistance Welders. Every resistance welder shall be provided with a nameplate giving the maker's name, primary voltage, frequency, rated kilovolt-amperes at 50 per cent duty cycle, maximum and minimum open-circuit secondary voltage, short-circuit secondary current at maximum secondary voltage, and the specified throat and gap setting.

SECTION 44—THEATRE INSTALLATION**Scope**

44-000 Scope. This Section applies to electrical equipment and installations in buildings or parts of a building designed, intended, or used for dramatic, operatic, motion picture, or other shows, and it is supplementary to or amendatory of the general requirements of this Code.

44-002 Motion Picture Studios and Projectors. Motion picture studios and projectors shall comply with the requirements of Section 48.

44-004 Sound Reproduction. Sound reproducing equipment shall comply with the requirements of Section 66.

General

44-100 Travelling Shows. Electrical equipment used by a travelling theatrical company, circus, or other travelling show, whether or not the performance is held within a theatre, shall not be used for the initial performance of any "Stand" until a permit has been obtained from the inspection department.

44-102 Wiring Method

(1) Wiring in stage and stage wing areas, orchestra pits, and projection booths shall be rigid metal conduit, electrical metallic tubing, mineral insulated cable, flexible metal conduit, armoured cable, lead-sheathed armoured cable, or aluminum-sheathed cable except that:

- (a) Other wiring methods are permitted for temporary work; and
- (b) Flexible cord or cable are permitted in accordance with other Rules in this Section.

(2) Surface raceways shall not be used on the stage side of the proscenium wall.

(3) Wiring in areas other than those listed in Subrule (1) shall be in accordance with the requirements of the appropriate Sections of this Code.

44-104 Number of Conductors In Raceways. For border or stage pocket circuits or for remote-control circuits:

- (a) The number of conductors run in rigid metal conduit or electrical metallic tubing shall not exceed that shown in Rule 12-1014; and
- (b) Conductors run in auxiliary gutters or metal wireways shall have a total cross-sectional area not exceeding 20 per cent of the cross-sectional area of the gutter or wireway.

44-106 Aisle Lights in Moving-Picture Theatres. Circuits for aisle lights located under seats may supply 30 outlets provided that the size of lamp bulb which can be used with each outlet

is limited by barriers or the equivalent to 25 watts or less.

Fixed Stage Switchboards

44-200 Stage Switchboards to be Dead Front. Stage switchboards shall be:

- (a) Of the dead-front type; and
- (b) Protected above with a suitable metal guard or hood extending the full length of the board and completely covering the space between the wall and the board to protect the latter from falling objects.

44-202 Guarding Stage Switchboards

(1) Where a stage switchboard has exposed live parts on the back of the board, it shall be enclosed by the walls of the building, by wire mesh grills, or by other acceptable methods.

(2) The entrance to the enclosure shall have a self-closing door.

44-204 Switches. Switches shall be of the enclosed type and externally operated.

44-206 Pilot Lamp on Switchboards

(1) A pilot lamp shall be installed within every switchboard enclosure.

(2) The pilot lamp shall be connected to the circuit supplying the switchboard so that the opening of the master switch does not cut off the supply to the lamp.

(3) The lamp shall be on an independent circuit protected by an overcurrent device rated or set at not more than 15 amperes.

44-208 Fuses. Fuses on switchboards shall be:

- (a) Of either the plug or cartridge type; and
- (b) Provided with enclosures in addition to the switchboard enclosure.

44-210 Overcurrent Protection. All circuits leaving the switchboard shall have an overcurrent device connected in each ungrounded conductor.

44-212 Dimmers

(1) Dimmers shall be connected so as to be dead when their respective circuit switches are open.

(2) Dimmers which do not open the circuit may be connected in a grounded neutral conductor.

(3) The terminals of dimmers shall be provided with approved enclosures.

(4) Dimmer faceplates shall be arranged so that accidental contact cannot readily be made with the faceplate contacts.

44-214 Control of Stage and Gallery Pockets. Stage and gallery pockets shall be controlled from the switchboard.

44-216 Conductors

(1) Stage switchboards equipped with resistive or transformed type dimmer systems shall be wired with conductors having insulation suitable for the temperature generated therein and in no case less than 125°C.

(2) The conductors shall have an ampacity of not less than that of the switch or overcurrent device to which they are connected.

(3) Holes in the metal enclosure through which conductors pass shall be bushed.

(4) The strands of the conductor shall be soldered together before they are fastened under a clamp or binding screw.

(5) Where a conductor of No. 8 AWG or of a larger size is connected to a terminal:

- (a) It shall be soldered into a lug; or
- (b) An approved solderless connector shall be used.

Portable Switchboards on Stage**44-250 Construction of Portable Switchboards**

(1) Portable switchboards shall be placed within enclosures of substantial construction but may be arranged so that the enclosure is open during operation.

(2) There shall be no live parts exposed within the enclosure except those on dimmer faceplates.

44-252 Supply for Portable Switchboards

(1) Portable switchboards shall be supplied by means of flexible cord or cable, Types S, SO, or ST, terminating within the switchboard enclosure in an externally operated, enclosed, fused master switch.

(2) The master switch shall be arranged so as to cut off current from all apparatus within the enclosure except the pilot light.

(3) The flexible cord or cable shall have a sufficient ampacity to carry the total load current of the switchboard.

(4) The ampere-rating of the fuses of the master switch shall not be greater than the total load current of the switchboard.

Fixed Stage Equipment**44-300 Footlights**

(1) Where footlights are wired in rigid metal conduit or electrical metallic tubing, every lampholder shall be installed in an individual outlet box.

(2) Where footlights are not wired in rigid metal conduit or electrical metallic tubing the wiring shall be installed in a metal trough.

44-302 Metal Work

(1) The metal work for footlights, borders, proscenium sidelights, and strips shall be not less than 0.0309 inch (No. 20 MSG) thick.

(2) The metal work for bunches and portable strips shall be not less than 0.0209 inch (No. 24 MSG) thick.

44-304 Clearances at Terminals. The terminals of lampholders shall be separated from the metal of the trough by at least 13 millimetres.

44-306 Mechanical Protection of Lamps in Borders, Etc. Borders, proscenium sidelights, and strips shall be constructed so that the flanges of the reflectors or other suitable guards protect the lamps from mechanical injury and from accidental contact with scenery or other combustible material.

44-308 Suspended Fixtures. Borders and strips shall be so suspended as to be electrically and mechanically safe.

44-310 Connections at Lampholders. Conductors shall be soldered to the terminals of lampholders unless other suitable means are provided to obtain positive and reliable connection under severe vibration.

44-312 Ventilation for Mogul Lampholders. Where the lighting devices are equipped with mogul lampholders, the lighting devices shall be constructed with double walls and with adequate ventilation between the walls.

44-314 Conductor Insulation for Field Assembled Fixtures. Foot, border, proscenium and portable strip light fixtures assembled in the field shall be wired with conductors having insulation suitable for the temperature at which the conductors will be operated and in no case less than 125°C.

44-316 Branch Circuit Overcurrent Protection. Branch circuits for footlights, border lights and proscenium sidelights shall have overcurrent protection in accordance with Rule 30-104.

44-318 Pendent Lights Rated More Than 100 Watts. Where a pendent lighting device contains a lamp or group of lamps of more than 100 watts capacity, it shall be provided with a guard of not more than 13 millimetres mesh so arranged as to prevent danger from falling glass.

44-320 Cable for Border Lights

(1) Flexible cord or cable for border lights shall be of Types S, SO, or ST.

(2) The flexible cord or cable shall be fed from points on the grid iron or from other acceptable overhead points but shall not be fed from side walls.

(3) The flexible cord or cable shall be arranged so that strain is taken from clamps and binding screws.

(4) Where the flexible cord or cable passes through a metal or wooden enclosure, a metal bushing shall be provided to protect the cord.

(5) Terminals or binding posts to which flexible cords or cables are connected inside the switchboard enclosure shall be located so as to permit convenient access to them.

44-322 Wiring to Arc Pockets. Where the wiring to arc pockets is in rigid metal conduit or electrical metallic tubing, the end of the conduit or tubing shall be exposed at a point approximately 300 millimetres away from the pocket, and the wiring shall be continued in flexible metal conduit in the form of a loop at least 600 millimetres long, with sufficient slack to permit the raising or lowering of the box.

44-324 Receptacles in Gallery Pockets. At least one receptacle having a rated capacity of not less than 30 amperes shall be installed in the gallery of theatres where dramatic or operatic performances are staged.

44-326 Receptacles and Plugs

(1) Receptacles intended for the connection of arc lamps shall:

- (a) Have an ampere rating not less than 35 amperes; and
- (b) Be supplied by conductors not smaller than No. 6 AWG.

(2) Receptacles intended for the connection of incandescent lamps shall:

- (a) Have a rated capacity not less than 15 amperes; and
- (b) Be supplied by conductors not smaller than No. 12AWG copper or No. 10 AWG aluminum.

(3) Plugs for arc and incandescent receptacles shall not be interchangeable.

44-328 Curtain Motors. Curtain motors shall be of the enclosed type.

44-330 Flue-Damper Control

(1) Where stage flue dampers are released by an electrical device, the circuit operating the device shall, in normal operation, be closed.

(2) The circuit shall be controlled by at least 2 single-pole switches enclosed in metal boxes with self-closing doors without locks or latches.

(3) One switch shall be placed at the electrician's station and the other at a suitable place.

(4) The device shall be:

- (a) Designed for the full voltage of the circuit to which it is connected, no resistance being inserted;
- (b) Located in the loft above the scenery; and
- (c) Enclosed in a suitable metal box with a tight self-closing door.

Portable Stage Equipment

44-350 Fixtures on Scenery

(1) Fixtures attached to stage scenery shall be:

- (a) Of the internally wired type; or

(b) Wired with flexible cord or cable approved for hard usage.

(2) The fixtures shall be secured firmly in place.

(3) The stems of the fixtures shall be carried through to the back of the scenery and shall have a suitable bushing on the end thereof.

44-352 String or Festooned Lights

(1) Joints in the wiring of string or festooned lights shall be staggered where practicable.

(2) Where the lamps of string or festooned lights are enclosed in paper lanterns, or shades or other devices of combustible material, they shall be equipped with lamp guards.

44-354 Flexible Conductors for Portable Equipment. Flexible conductors for arc lamps, bunches, or other portable equipment shall be Types S, SO, or ST cord or cable, but for separate miscellaneous portable devices operated under conditions where the conductors are not exposed to severe mechanical injury, reinforced cords Types SV, SVO, SJ, SJO, or SJT may be used provided that they are protected by an overcurrent device rated or set at not more than 15 amperes.

44-356 Portable Equipment for Stage Effects. Portable equipment for stage effects shall be of a type acceptable for the purpose and shall be so located that flames, sparks or hot particles cannot come in contact with combustible material.

SECTION 46—EMERGENCY SYSTEMS, UNIT EQUIPMENT, AND EXIT SIGNS

46-000 Scope

(1) This Section applies to the installation, operation and maintenance of emergency systems and unit equipment intended to supply illumination and to emergency systems intended to supply power, in the event of failure of the normal supply, where required by any governmental or other agency having jurisdiction.

(2) This Section applies to the wiring of exit signs.

(3) The requirements of this Section are supplementary to or amendatory of the general requirements of this Code.

General

46-100 Capacity. Emergency systems and unit equipment shall have adequate capacity and rating to ensure the satisfactory operation of all connected equipment when the principal source of power fails.

46-102 Maintenance. Where batteries are used as a source of supply, the batteries shall be kept:

- (a) In proper condition; and
- (b) Fully charged at all times.

46-104 Arrangement of Lamps

(1) Emergency lights shall be so arranged that the failure of any one lamp will not leave in total darkness the area normally illuminated by it.

(2) No appliance or lamp, other than those required for emergency purposes, shall be supplied by the emergency circuits.

46-106 Method of Wiring

(1) The method of wiring including that between unit equipment and remote lamps shall be in accordance with Section 12.

(2) The wiring shall be kept entirely independent of all other wiring and equipment and shall not enter a fixture, raceway, box, or cabinet occupied by other wiring except where necessary:

- (a) In transfer switches; and
- (b) In emergency lighting fixtures supplied from two sources.

Emergency Systems

46-200 Emergency Systems. Rules 46-200 to 46-214 apply to emergency systems from central standby supplies only.

46-202 Supply

(1) The emergency supply shall be a standby supply consisting of:

- (a) A storage battery of the rechargeable type having sufficient capacity to supply and maintain at not less than 91 per cent of full voltage the total load of the emergency circuits for the time period required by the authority having jurisdiction, but in no case less than half an hour, and equipped with a charging means to maintain the battery in a charged condition automatically; or
- (b) A generator driven by a dependable prime mover.

(2) Automobile batteries and lead batteries not of the enclosed glass-jar type are not considered suitable under Subrule (1) and shall not be used unless their use is lawful under Rule 2-030.

(3) Where a generator is used, it shall be:

- (a) Of capacity sufficient to carry the load; and
- (b) Arranged to start automatically without failure and without undue delay upon the failure of the current supply of the principal equipment of the building.

46-204 Control

(1) The current supply for emergency systems shall be controlled by an automatic transfer switch which energizes the emergency system upon failure of the

normal current supply and is accessible only to authorized persons.

(2) An automatic light-actuated device, approved for the purpose, may be used to control separately the lights located in an area that is adequately illuminated during daylight hours without the need of artificial lighting.

46-206 Overcurrent Protection

(1) No device capable of interrupting the circuit, other than the overcurrent device for the current supply of the emergency system, shall be placed ahead of the branch circuit overcurrent devices.

(2) The branch circuit overcurrent devices shall be accessible only to authorized persons.

46-208 Audible and Visual Trouble-Signal Devices

(1) Every emergency system shall be equipped with audible and visual trouble-signal devices which give warning of derangement of the current source or sources and which indicate when the emergency load is supplied from batteries or generators.

(2) Audible trouble signals may be wired so that:

- (a) They can be silenced, but a red warning or trouble light shall continue to provide the protective function; and
- (b) When the system is restored to normal, the audible signal will:
 - (i) Sound, thus indicating the necessity of restoring the silencing switch to its normal position; or
 - (ii) Reset automatically so as to sound for any subsequent operation of the emergency system.

46-210 Remote Lamps. Lamps may be mounted at some distance from the current supply which feeds them, but the voltage drop in the wiring feeding such lamps shall not exceed 5 per cent of the applied voltage.

Unit Equipment

46-300 Unit Equipment. Rules 46-302 to 46-306 inclusive apply to individual unit equipment for emergency lighting only.

46-302 Mounting of Equipment. Each unit equipment shall be mounted with the bottom of the enclosure not less than 2 metres above the floor wherever practicable.

46-304 Supply Connections

(1) Receptacles to which unit equipment is to be connected shall be not less than 2.5 metres above the floor, where practicable, and shall be not more than 1.5 metres from the location of the unit equipment.

(2) Unit equipment shall be permanently connected to the supply if:

- (a) The voltage rating exceeds 250 volts; or
- (b) The marked input rating exceeds 24 amperes.

(3) Where the ratings in Subrule (2) are not exceeded, the unit equipment may be connected using the flexible cord and attachment plug supplied with the equipment.

(4) Unit equipment shall be:

- (a) Installed in such a manner that it will be automatically actuated upon failure of the power supply to the normal lighting in the area covered by that unit equipment; and
- (b) Fed where practicable from the same panel-board, and may be fed from the same branch circuit which feeds the normal lighting in the area covered by that unit equipment.

46-306 Remote Lamps

(1) The circuit conductors to remote lamps shall be of such size that the voltage drop does not exceed 5 per cent of the marked output voltage of the unit equipment; or such other voltage drop for which the performance of unit equipment is certified when connected to the specific remote lamp being installed.

(2) Remote lamps shall be acceptable for the purpose and shall be included in the list of lamps provided with the unit equipment.

(3) The number of lamps connected to a single unit equipment shall not result in a load in excess of the watts output rating marked on the equipment for the emergency period, and the load shall be computed from the information in the list of lamps referred to in Subrule (2).

Exit Signs

46-400 Exit Signs

(1) The power supply for exit signs shall be provided from:

- (a) A separate circuit, or circuits, used for no other purpose; or
- (b) The circuit supplying exit lighting.

(2) Exit signs shall be wired in accordance with Section 12.

SECTION 48—MOTION PICTURE STUDIOS, PROJECTION ROOMS, FILM EXCHANGES INCLUDING FILM-VAULTS AND STORE HOUSES FOR PYROXYLIN PLASTIC AND NITROCELLULOSE X-RAY AND PHOTOGRAPHIC FILM

48-000 Scope

(1) This Section applies to:

- (a) Motion picture studios, projection rooms, exchanges, factories and laboratories; and
- (b) Any building or portion of a building in which motion picture films, pyroxylin plastic and nitrocellulose X-ray and photographic films are manufactured, projected, developed, printed, rewound, repaired or stored;

and is supplementary to or amendatory of the general requirements of this Code.

(2) This Section does not apply where only slow-burning (cellulose-acetate or equivalent) film is used.

48-002 Wiring Method. The wiring method, unless specified otherwise in this Section, shall be rigid conduit, steel electrical metallic tubing, or mineral-insulated cable, except that portable cables or flexible cord may be used on studio stages and other locations where fixed wiring methods are impracticable.

48-004 Lamp Outlets. Lamp outlets on walls shall consist of lampholders mounted in outlet boxes and equipped with open-end guards securely fastened to the cover of the box.

48-006 Pendent Lamps. Pendent lamps shall be suspended by means of reinforced cord, armoured cord or armoured cable, and shall be protected by guards or metal shades.

48-008 Portable Lamps. For portable lamps other than those used as properties in a motion picture set on a studio stage or similar location, the lampholders shall be:

- (a) Unswitched;
- (b) Of composition or metal-sheathed porcelain; and
- (c) Provided with a guard hook and handle.

48-010 Flexible Cords. Type S, SO or ST cord shall be used on portable lamps and equipment.

48-012 Patching Table Fixtures. At film-patching tables all lighting fixtures, except lamps forming an integral part of patching table equipment, shall be of the totally-enclosed gasketed type.

48-014 Motors and Generators. Motors and generators having brushes or sliding contacts, other than those used on studio stages shall be of approved dust-tight or enclosed types.

48-016 Storage Batteries. Storage batteries shall comply with the requirements of Rules 26-540 to 26-554.

48-018 Pyroxylin Plastic Storage Rooms. In rooms used for the storage of pyroxylin plastic no receptacle or attachment plugs shall be installed.

Film-Vaults

48-020 Equipment in Film-Vaults. No electrical equipment other than that necessary for fixed lighting shall be installed in film-vaults.

48-022 Film-Vaults Wiring Method

(1) The wiring method in film-vaults shall be rigid conduit or mineral-insulated cable only, with threaded joints at couplings, boxes and fittings.

(2) Conduit or cable shall not run directly from vault to vault, but only from the switch to the lighting fixture within the vault.

(3) Conduit shall be sealed off near the switch enclosure with a fitting and compound approved for the purpose.

48-024 Film-Vault Lighting Fixtures

(1) Lighting fixtures in film-vaults shall be of the explosion-proof type approved for use in Class 1, Group C hazardous locations and shall have metal cages or guards protecting the globes.

(2) The fixtures shall be located as close as practicable to the ceiling so as not to be liable to damage through handling of film containers.

48-026 Film-Vault Circuits

(1) Fixtures shall be controlled by a double-pole switch located outside the film-vault.

(2) A red pilot light shall be provided to indicate when the switch is closed and shall be located outside the film-vault.

(3) Wiring shall be arranged so that when the switch is off, all conductors within the film-vault will be dead.

Motion Picture Projection Rooms

48-028 Flexible Cords in Projection Rooms. Type S, SJ, SO, or ST flexible cords shall be used on portable equipment in motion picture projection rooms.

48-030 Lamps in Projection Rooms. Incandescent lamps in projection rooms or booths shall be provided with a lamp guard unless otherwise protected by noncombustible shades or other enclosures.

48-034 Ventilation. Exhaust ventilation fans for the projection room shall be controlled from inside the projection room.

SECTION 52 — DIAGNOSTIC IMAGING INSTALLATIONS**52-000 Scope**

(1) This Section applies to the installation of x-ray and other diagnostic imaging equipment operating at any frequency, and is supplementary to, or amendatory of, the general requirements of this Code.

(2) Nothing in this Section shall be construed as specifying safeguards against direct, stray, or secondary radiation emitted by the equipment.

52-002 Special Terminology. In this Section the following definitions apply:

(a) **Long-time rating**, when applied to x-ray or computerized tomography equipment, means a rating that is applicable for an operating period of 5 minutes or more;

(b) **Momentary rating**, when applied to x-ray or computerized tomography equipment, means a rating that is applicable for an operating period of not more than 20 seconds.

52-004 High-Voltage Guarding

(1) High-voltage parts shall be mounted within metal enclosures that are bonded to ground except when installed in separate rooms or enclosures where a suitable switch shall be:

(a) Provided to control the circuit supplying diagnostic imaging equipment; and

(b) Arranged so that it will be in an open position except when the door of the room or enclosure is locked.

(2) High-voltage parts of diagnostic imaging equipment shall be insulated from the enclosure.

(3) Conductors in the high-voltage circuits shall be of the shockproof type.

(4) A milliammeter, if provided, shall be:

(a) Connected, if practicable, in the lead that is bonded to ground; or

(b) Guarded if connected in the high-voltage lead.

52-006 Connections to Supply Circuit

(1) Permanently connected diagnostic imaging equipment shall be connected to the power supply by means of a wiring method meeting the general requirements of this Code except that apparatus properly supplied by branch circuits not larger than a 30 ampere branch circuit may be supplied through a suitable plug and hard usage cable or cord.

(2) Mobile diagnostic imaging equipment of any capacity may be connected to its power supply by suitable temporary connections and hard usage cable or cord.

52-008 Disconnecting Means

(1) A disconnecting means of adequate capacity for at least 50 per cent of the input required for the momentary rating or 100 per cent of the input required for the long-time rating of x-ray or computerized tomography equipment, whichever is greater, shall be provided in the supply circuit.

(2) A disconnecting means of adequate capacity shall be provided in a location readily accessible from the radiation control.

(3) For apparatus requiring a 120 volt branch circuit fused at 30 amperes or less, a plug and receptacle of proper size shall be permitted to serve as a disconnecting means.

52-010 Transformers and Capacitors

(1) Transformers and capacitors forming a part of diagnostic imaging equipment shall not be required to conform to the requirements of Section 26 of this Code.

(2) Capacitors shall be provided with an automatic means for discharging and grounding the plates whenever the transformer primary is disconnected from the source of supply, unless all current-carrying parts of the capacitors and of the conductors connected therewith are:

- (a) At least 2.5 metres from the floor, and are inaccessible to unauthorized persons; or
- (b) Within metal enclosures that are bonded to ground or with enclosures of insulating material if within 2.5 metres of the floor.

52-012 Control

(1) For stationary equipment, the low-voltage circuit of the step-up transformer shall contain an overcurrent device which:

- (a) Has no exposed live parts; and
- (b) Protects the radiographic circuit against fault conditions under all operating conditions; and
- (c) Is installed as a part of the equipment or adjacent thereto.

(2) Where in Subrule (1) the design of the step-up transformer is such that branch fuses having a current rating lower than the current rating of the overcurrent device are required for adequate protection for fluoroscopic and therapeutic circuits, they shall be added for protection of these circuits.

(3) For portable equipment, the requirements of Subrules (1) and (2) shall apply but the overcurrent device shall be located in or on the equipment except that no current limiting device is required when the high-voltage parts are within a single metal enclosure that is provided with a means for bonding to ground.

(4) Where more than one piece of equipment is operated from the same high-voltage circuit, each piece or group of equipment, as a unit, shall be provided with a high-voltage switch or equivalent disconnecting means.

52-014 Bonding. Non-current-carrying parts of tube stands, tables, and other apparatus shall be bonded to ground in conformity with the requirements of Section 10.

52-016 Ampacity of Supply Conductors and Rating of Overcurrent Protection

(1) The ampacity of supply conductors and the rating of overcurrent protection devices shall not be less than:

- (a) The long-time current rating of x-ray or computerized tomography equipment; or
- (b) 50 per cent of the maximum momentary current rating required by x-ray or computerized tomography equipment on a radiographic setting.

(2) The ampacity of conductors and the rating of overcurrent protection devices for two or more branch circuits supplying x-ray or computerized tomography units shall not be less than:

- (a) The sum of the long-time current rating of all x-ray or computerized tomography units which are intended to be operated at any one time; or
- (b) The sum of 50 per cent of the maximum momentary current rating for x-ray or computerized tomography equipment on a radiographic setting, for the two largest units plus 20 per cent of the maximum current rating of the other units.

SECTION 56 — OPTICAL FIBRE CABLES

Scope

56-000 Scope. This Section applies to the installation of optical fibre cables in conjunction with electrical systems and is supplementary to, or amendatory of, the general requirements of this Code.

General

56-100 Special Terminology. In this Section:

Optical Fibre Cable means a cable consisting of one or more optical fibres which transmits modulated light for the purpose of control, signalling or communications.

56-102 Types. Optical fibre cables are grouped into the following types:

- (a) Nonconductive cables which contain no metal members and no other electrically conductive materials;
- (b) Conductive cables which contain non-current-carrying conductive members such as metal strength members, metal vapour barriers, or metal sheaths or shields; and
- (c) Hybrid cables which contain both optical fibre cables and current-carrying electrical conductors.

56-104 Approvals

(1) Non-conductive and conductive optical fibre cables:

- (a) Placed within buildings shall be of the types as specified in Table 19; and
- (b) Placed outside of building shall be of an acceptable type.

(2) Hybrid cables placed outside of buildings and only containing electrical conductors of a communications, community antenna distribution or radio and television circuit shall be of an acceptable type.

Installation Methods**56-200 Nonconductive Optical Fibre Cables**

(1) Nonconductive optical fibre cables are not permitted to occupy the same raceway with conductors of electric light, power, or Class 1 circuits unless:

- (a) The nonconductive optical fibre cables are functionally associated with the electric light, power, or Class 1 circuit not exceeding 750 volts; and
- (b) The number and size of nonconductive optical fibre cables and other types of electric conductors in the raceway meet with the applicable requirements for the electrical wiring method.

(2) Nonconductive optical fibre cables are not permitted to occupy the same cabinet, panel, outlet box or similar enclosure housing the electric terminals of an electric light, power or Class 1 circuit unless:

- (a) The nonconductive optical fibre cables are functionally associated with an electric light, power or Class 1 circuit not exceeding 750 volts, and the number and size of optical fibre cables and other types of electric conductors in the enclosure meet with the applicable requirements for the electrical wiring method; or
- (b) The nonconductive optical fibre cables are factory assembled in the enclosure.

(3) Notwithstanding Subrules (1) and (2), non-conductive optical fibre cables are permitted to occupy the same raceway, cabinet, panel, outlet box or similar enclosure with functionally associated electric circuits exceeding 750 volts for industrial establishments where installed and maintained by qualified personnel.

56-202 Conductive Optical Fibre Cables

(1) Conductive optical fibre cables are permitted to occupy the same raceway with Class 2 circuits in accordance with Section 16.

- (2) Conductive optical fibre cables are not permit-

ted to occupy the same raceway, panel, cabinet, or similar enclosure housing electric light, power, or Class 1 circuits.

(3) Conductive optical fibre cables are not permitted to occupy the same cabinet, panel, outlet box or similar enclosure housing the electrical terminals of a Class 2 circuit unless:

- (a) The conductive optical fibre cables are functionally associated with the Class 2 circuit; or
- (b) The conductive optical fibre cables are factory assembled in the enclosure.

(4) The conductive non-current-carrying members of conductive optical fibre cables shall be grounded in accordance with Section 10.

56-204 Hybrid Cables

(1) Optical fibres are permitted within the same hybrid cable for electric light, power or Class 1 circuit conductors not exceeding 750 volts, or within the same hybrid cable for Class 2 circuit conductors, if the functions of the optical fibres and the electrical conductors are associated.

(2) Hybrid cables shall be classed as electrical cables in accordance with the type of electrical circuit in the conductors, and shall be installed in accordance with the Code Rules applicable to the electrical circuit conductors.

56-206 Penetration of a Fire Separation. Hybrid optical fibre cables extending through a fire separation shall be installed so as to limit fire spread in accordance with Rule 2-126.

56-208 Optical Fibre Cables in a Vertical Shaft. Optical fibre cables in a vertical shaft shall be in a totally enclosed noncombustible raceway.

56-210 Optical Fibre Cables in Ducts and Plenum Chambers. Hybrid optical fibre cables shall not be placed in ducts or plenum chambers except as permitted by Rules 12-010 and 2-128.

56-212 Raceways. Raceways shall be installed in accordance with the requirements of Section 12.

56-214 Grounding of Entrance Cables. Where conductive optical fibre cables are exposed to lightning or accidental contact with electrical light or power conductors, the metal members of the conductive optical fibre cable shall be grounded in the building as close as possible to the point of cable entry.

SECTION 62—FIXED ELECTRIC SPACE AND SURFACE HEATING SYSTEMS**Scope****62-000 Scope**

- (1) This Section applies to:

- (a) Fixed electric space heating systems for heating rooms and similar areas; and
 - (b) Fixed surface heating systems for pipe heating, melting of snow or ice on roofs or concrete or asphalt surfaces, soil heating and similar applications other than space heating.
- (2) The requirements of this Section are supplementary to, or amendatory of, the general requirements of this Code.

General

62-100 General Rules. Rules 62-102 to 62-128 apply to both fixed space and surface heating installations.

62-102 Special Terminology. In this Section the following definitions apply:

- (a) "Central unit" means any heating unit (or group of units assembled so as to form a complete unit) permanently installed in such a way that it can convey heat to rooms or areas using air, liquid, or vapour flowing through pipes or ducts, and includes duct heaters;
- (b) "Fixture" means any heating unit (or group of units assembled so as to form a complete unit) permanently installed in such a manner that it can be removed or replaced without removing or damaging any part of the building structure;
- (c) "Heating cable set" means a series heating cable set or a parallel heating cable set;
- (d) "Heating panel" means a rigid or non-rigid laminated plane section in which the heating element consisting of a continuously parallel resistive material, a series resistive material, or a parallel-series resistive material is embedded between or in sheets of electrical insulating material;
- (e) "Heating panel set" means a heating panel together with cold leads or non-heating portion;
- (f) "Heating unit" is a general term applying to any form of electrical heating device, and includes cable, fixture, panel and strip system;
- (g) "Parallel heating cable" means a cable incorporating heating elements connected in parallel either continuously or intermittently such that the watt density along the length of the cable is not altered by changes in the cable length;
- (h) "Parallel heating cable set" means the combination of a parallel heating cable and associated parts necessary to connect it to a source of electrical supply;
- (i) "Series heating cable" means a cable using a series resistance conductor(s);

- (j) "Series heating cable set" means the combination of a series heating cable and a means of connecting it to a source of electrical supply where the combination is assembled by the manufacturer;
- (k) "Sauna heater" means a device that is designed for heating air and that is installed permanently in a special room to produce a hot atmosphere with generally a relatively low humidity although brief excursions to relatively high humidity may take place.

62-104 Special Locations. Heating equipment installed in hazardous locations or where subject to wet or corrosive conditions shall be marked as being suitable for the particular location.

62-106 Terminal Connections

(1) Connections to heating equipment shall be made in terminal fittings or boxes, and equipment shall be installed so that connections between circuit conductors and equipment conductors are accessible without disturbing any part of the wiring.

(2) Where the connections of Subrule (1) are made in terminal fittings, they shall be contained in an enclosure of noncombustible material.

(3) Where the temperature at the point of connection between branch circuit conductors and heating unit exceeds 60 degrees Celsius, the branch circuit conductors shall be installed in accordance with Rule 30-410.

62-108 Branch Circuits

(1) Branch circuit conductors used for the supply of energy to heating equipment shall:

- (a) Be used solely for such equipment; and
- (b) Have an ampacity not less than that of the connected load supplied; and
- (c) Conductors having insulation suitable for the temperatures encountered shall be used for branch circuits supplying a heating unit.

(2) For the purpose of this Rule an approved unit which combines heating with ventilating or lighting equipment, or both, shall be considered to be heating equipment.

(3) Notwithstanding Subrule (1) where a heat lamp is not the sole source of heat it may be used in a medium-base lampholder acceptable for the purpose where the lampholder is supplied from a general-use branch circuit.

62-110 Installation of Fixtures

- (1) Fixtures shall be installed so that:

- (a) The proper radiation of heat shall not be obstructed by any portion of the building structure;
- (b) Adjacent combustible material shall not be subjected to temperatures in excess of 90 degrees Celsius.

(2) Where a fixture is recessed in noncombustible material in a building of concrete, masonry or equal noncombustible construction, the noncombustible material may be subjected to temperatures not exceeding 150 degrees Celsius, but the fixture shall be plainly marked as suitable for the service.

(3) Fixtures weighing more than 10 pounds shall be installed so that the wiring connections in the outlet box or its equivalent will be accessible for inspection without removing the fixture supports.

(4) Fixtures weighing more than 25 pounds shall not be supported directly by an outlet box which is mounted on a bar hanger.

(5) Fixtures weighing more than 50 pounds shall be supported independently of the outlet box.

(6) Where fixtures are installed less than 5.5 metres above the floor in an arena, gymnasium, or similar location, where they may be exposed to damage from flying objects, the heating elements shall be of the metal sheathed type or the fixture shall be suitable for the application.

62-112 Fixtures as Raceways

(1) No fixture shall be used as a raceway for circuit conductors unless the fixture is marked for this use.

(2) Notwithstanding Subrule (1), the wiring channel of a baseboard heating unit may be used to contain the wiring for the interconnection of adjacent baseboard units on the same branch circuit if the units are marked for this use.

62-114 Overcurrent Protection and Grouping

(1) Every fixture, cable set, heating panel set or parallel heating set having an input of more than 30 amperes shall be supplied by a branch circuit that supplies no other equipment.

(2) In buildings for residential occupancy, two or more fixtures, cable sets or heating panel sets may be connected to a branch circuit used for space heating, provided that the branch circuit overcurrent devices are rated or set at not more than 30 amperes.

(3) In other than buildings for residential occupancy:

- (a) Two or more fixtures, cable sets, heating panel sets or parallel heating sets may be grouped on a branch circuit, and the branch circuit overcurrent devices shall not be set or rated in

excess of 60 amperes or such greater amperage as is lawful under Rule 2-030;

- (b) Where three fixtures, cable sets, heating panel sets or parallel heating sets are grouped on a branch circuit in a balanced 3-phase arrangement, the branch circuit overcurrent devices may be set or rated in excess of 60 amperes.

(4) Where two or more fixtures, cable sets, heating panel sets or parallel heating sets are grouped on a single branch circuit, the non-heating leads of cable sets and taps to cable sets, fixtures and strip systems shall:

- (a) Have an ampacity not less than one-third the rating of the branch circuit overcurrent device; and
- (b) Be not more than 7.5 metres in length.

(5) Where the heating portion of a cable set is not totally embedded in noncombustible material, the rating or setting of the branch circuit overcurrent devices shall not exceed 15 amperes.

(6) Where a service, or feeder or branch circuit is used solely for the supply of energy to heating equipment, the load, as determined using Rule 62-116, shall not exceed:

- (a) 100 per cent of the rating or setting of the overcurrent devices protecting the service conductors, feeder conductors, or branch circuit conductors when the service box, fusible switch, circuit breaker, or panelboard is marked for continuous operation at 100 per cent of the ampere rating of its overcurrent devices; or
- (b) 80 per cent of the rating or setting of the overcurrent devices protecting the service conductors, feeder conductors, or branch circuit conductors when the service box, fusible switch, circuit breaker, or panelboard is marked for continuous operation at 80 per cent of the ampere rating of its overcurrent devices.

(7) Service, feeder, or branch circuit conductors supplying only fixed resistance heating loads shall be permitted to have an ampacity less than the rating or setting of the circuit overcurrent protection provided that their ampacity.

- (a) Is not less than the load; and
- (b) Is at least 80 per cent of the rating or setting of the circuit overcurrent protection.

(8) Notwithstanding Paragraph (7)(b), where 125 percent of the allowable ampacity of a conductor does not correspond to a standard rating of the overcurrent device, the next higher standard rating shall be permitted.

62-116 Demand Factors for Service Conductors and Feeders

(1) Where service conductors or feeders are used solely for the supply of energy to heating equipment they shall have an ampacity of not less than the sum of the current ratings of all the equipment they supply.

(2) Notwithstanding Subrule (1), where a heating installation in buildings for residential occupancy is provided with automatic thermostatic control devices in each room or heated area the ampacity of service conductors or feeders supplying heating equipment only shall be based on the following:

- (a) The first 10 kilowatts of connected heating load at 100 per cent demand factor; plus
- (b) The balance of the connected heating load at 75 per cent demand factor.

(3) Where service conductors or feeders supply a combined load of heating and other equipment, they shall have an ampacity consisting of:

- (a) In the case of buildings for residential occupancy, the sum of the heating load as computed by Subrule (2) plus the combined loads of other equipment with demand factors as applicable in Section 8; or
- (b) In the case of other occupancies, 75 per cent of the total connected heating load plus the combined loads of the other equipment with demand factors as applicable in Section 8 for the type of occupancy.

(4) Notwithstanding Paragraph (3)(b), where the combined loads with applicable demand factors of other than heating equipment is less than 25 per cent of the connected heating load on a service or feeder no demand factor shall be applicable to the heating portion of the load, but in no case shall the resultant demand be less than the connected heating load.

62-118 Temperature Control Devices

(1) Temperature control devices rated to operate at line voltage shall have a current rating at least equal to the sum of the current ratings of the equipment they control.

(2) Temperature control devices which can be turned automatically or manually to a marked "OFF" position and which either interrupt line current directly or control a contactor or similar device which interrupts line current shall open all ungrounded conductors of the controlled heating circuit when in the "OFF" position.

(3) Where the liquid to be heated is a fuel or other flammable product, temperature controls shall be installed to ensure that the liquid temperature does not exceed the minimum flash point of the liquid.

62-120 Construction of Series Heating Cable Sets. Series heating cable sets shall be complete assemblies including both the heating portion and the non-heating end leads and shall have permanent markings as required, located on one or both of the non-heating leads not more than 75 millimetres from the supply end of a non-heating lead.

62-122 Installation of Series Heating Cable Sets

(1) The heating portion of a series heating cable set shall not be shortened and any series heating cable set which does not bear its original markings shall be considered to have been shortened and will be rejected unless the installer can prove to the satisfaction of the inspection department, by instrument measurements, that the characteristics of the series heating cable set have not been altered.

(2) The entire length of the heating portion, including connections to nonheating leads, shall be installed within the heating area.

(3) Series heating cable sets shall be installed so that the temperature on any part will not exceed 90 degrees Celsius except as permitted in Rule 62-304(1).

(4) The heating portions of series heating cable sets shall not be run closer than 200 millimetres to any outlet to which a lighting fixture or other heat-producing equipment is liable to be connected.

(5) Where series heating cable sets without metal shields or sheaths are installed, metal structures or materials used for the support of such series heating cable sets shall be bonded to ground.

(6) Where a series heating cable set is liable to accidental contact with conductive material which is not effectively bonded to ground, the heating portion of the series heating cable set shall have a metal shield or sheath.

(7) Metal shields and sheaths of series heating cable sets shall be bounded to ground.

62-124 Field-Assembled Series Heating Cable Sets for Embedding in Concrete Indoors (see Appendix B)

(1) Heating cables for embedding in concrete indoors shall be Type 1B, as specified in Table 60, and so marked.

(2) Notwithstanding Rules 62-120 and 62-122(1), series heating cable sets forming part of a heating cable system for embedding in concrete indoors and approved for assembly at the time of installation may be so installed.

(3) The electrical rating of the series heating cable sets referred to in Subrule (1) shall be marked in the junction box provided as part of the system and which encloses the connection between the branch circuit conductors and the non-heating end leads.

(4) Notwithstanding Rules 62-126 and 62-218(2), the series heating cable sets referred to in Subrule (1) may, subject to the conditions of approval, be installed with the joint between the heating portion and the non-heating end leads in the supply junction box forming part of the system, provided that the heating portion is contained with a raceway between the point where it leaves the concrete and enters the box.

62-126 Non-heating End Leads of Series Heating Cable Sets and Heating Panel Sets

(1) The non-heating end leads of series heating cable sets and heating panel sets shall be installed in accordance with the requirements of Section 12 for the type of conductors employed.

(2) Where the heating element of a series heating cable set is embedded in a concrete or similar floor the non-heating end leads if not of the metal sheathed type, shall be run from within the concrete to the junction box in rigid conduit, electrical metallic tubing, or other approved raceway, which shall terminate in a horizontal run within the concrete and have a bushing or equivalent fitting to prevent abrasion of the conductors where they emerge.

62-128 Heating Panel and Heating Panel Sets

(1) Heating panels shall be complete assemblies including terminal fittings.

(2) Heating panel sets shall be complete assemblies including the terminal fittings and the non-heating leads.

(3) The non-heating leads for heating panels or heating panel sets shall be of a type equivalent to the insulated conductors in nonmetallic sheathed cable.

Electric Space Heating Systems

62-200 Electric Space Heating. Rules 62-202 to 62-224 apply to fixed electric space heating systems for heating rooms and similar areas.

62-202 Temperature Control. Each enclosed area within which a heater is located shall have a temperature control device.

62-204 Connections to Branch Circuit Conductors

(1) A cable set or heating panel used for interior space heating shall have non-heating end leads for connection to branch circuit conductors.

(2) For the heating panel referred to in Subrule (1), the non-heating end leads may be attached at the time of installation in accordance with the manufacturer's instructions.

62-206 Proximity of Other Wiring. Wiring of other circuits located:

(a) Above heated ceilings shall be spaced not less than 50 millimetres above the ceiling and shall be considered as operating at an ambient temperature of 50 degrees Celsius unless thermal insulation having a minimum thickness of 50 millimetres is interposed between the wiring and the ceiling;

(b) In heated concrete slabs shall be spaced not less than 50 millimetres from the heating cables and shall be considered as operating at an ambient temperature of 40 degrees Celsius.

62-208 Installation of Central Units

(1) Central units shall be installed so that there is reasonable accessibility for repair and maintenance.

(2) Central units shall be installed:

(a) In an area which is large compared with the physical size of the unit unless specifically approved for installation in an alcove or close; and

(b) So as to comply with the clearances from combustible materials as specified on the nameplate.

62-210 Wattage of Heating Panels and Panel Sets. The heating portion of the heating panels and panel sets when in contact with gypsum board or plaster lath, or when embedded in plaster, as per manufacturer's installation instructions and Rule 62-214, shall not have a watt density such that it will produce an exposed ceiling surface temperature in excess of the limiting temperature of the ceiling finish materials used.

62-212 Location of Heating Panels or Heating Panel Sets

(1) The heating portion of heating panels or heating panel sets shall not be:

(a) Installed in or behind any wall surface, nor in any location where it may be subject to mechanical injury either during or after construction; or

(b) Run through walls, partitions, floors or similar portions of structures.

(2) The heating panels or heating panel sets may be in contact with thermal insulation, but shall not be run in or through thermal insulation.

62-214 Installation of Heating Panels and Heating Panel Sets

(1) Heating panels and heating panel sets shall be installed in accordance with the manufacturer's instructions.

(2) Field made connections necessary to assemble heating panel sets shall be permitted to be inaccessible providing they are accessible before ceiling finishing materials are applied and the connectors and enclosures are part of heating panel sets.

(3) Subject to the temperature limitations of the particular application heating panels or heating panel sets shall be installed so that the temperature of any part does not exceed its temperature rating.

(4) The heating panels shall be installed parallel to joists or nailing strips.

(5) The heating panels shall be secured to the lower face of joists, headers, or nailing strips.

(6) Nailing or stapling of the heating panels to the ceiling shall be done only through the unheated strips provided for this purpose.

(7) Heating panels shall not be cut through or nailed through any point closer than $\frac{1}{4}$ inch to the element.

(8) The ceiling finish material shall be secured so that nails or other fastenings do not pierce the heating panels.

(9) The heating portion of the heating panels shall not be installed closer than 200 millimetres to any outlet to which a lighting fixture or other heat producing equipment is liable to be connected.

(10) Heating panels shall not be installed above cupboards, walls or other obstructions.

(11) Branch circuits supplying heating panels and/or heating panel sets shall be marked by a warning label supplied by the heating panel or heating panel set manufacturer and affixed to the panelboard by the installer, stating that the ceiling supplied by the branch circuit is electrified (or contains live wiring) and should not be penetrated by nails, screws or similar devices.

62-216 Heating Cable Sets in Ceilings. Heating cable sets installed in ceilings shall be Type 1A, as specified in Table 60, and so marked.

62-218 Series Heating Cable Sets in Cement or Plaster Ceilings

(1) Series heating cable sets installed in cement or plaster shall be secured in place on the undercoat, gypsum board or plaster lath at not over 600 millimetre intervals by acceptable fastening devices suitable for the temperature involved, and of such nature as not to damage the cable.

(2) The entire length of the heating portion including the connections to the non-heating leads, shall be completely embedded in noncombustible material.

(3) Where series heating cable sets are installed in

plastered ceilings, the plaster shall be a thermally non-insulating sand plaster, or equivalent, having a nominal thickness of not less than 13 millimetres.

62-220 Series Heating Cable Sets in "Dry-Board" Installations

(1) For "dry-board" installations the cable shall be installed parallel to the joist or nailing strips, leaving a clear space of not less than 25 millimetres wider than the width of the lower face of the joist, header or nailing strip, between centres of adjacent cable runs.

(2) Crossing of joists by cable shall be done only at the ends of the joists or such other location as is lawful under Rule 2-030.

(3) After the heating cable is installed;

(a) The entire ceiling below the cable shall be covered with gypsum board not exceeding 13 millimetres in thickness; and

(b) The voids between the upper layer of gypsum board and the surface layer of gypsum board shall be filled with thermally conducting plaster or other suitable material; and

(c) The surface layer of gypsum board shall be mounted so that the nails or other fastenings do not pierce the heating cable.

62-222 Wattage Rating and Spacing of Series Heating Cable Sets

(1) Series heating cable sets, when in contact with gypsum board or plaster lath, or when embedded in plaster or sand which is in contact with gypsum board or plaster lath, shall not:

(a) Have a rating in excess of 9 watts per metre of the heating portion; and

(b) Be spaced closer than on 50 millimetres centres.

(2) Series heating cable sets, when embedded in concrete or poured masonry, shall not:

(a) Have a rating in excess of 65 watts per metre of heating portion, unless not adjacent heating cable is closer than 450 millimetres when up to 100 watts per metre may then be used; and

(b) Be spaced closer than 25 millimetres on centres; and

(c) Have watts per square metre in excess of 430 watts.

62-224 Location of Series Heating Cable Sets. The heating portions of series heating cable sets shall not be:

(a) Installed in or behind any wall surface, nor in any other location where they may be subject

to mechanical injury either during or after construction; or

- (b) Installed in, nor concealed behind any surface having wood lath, wood panelling, or similar combustible material; or
- (c) Run through walls, partitions, floors or similar structure; or
- (d) Run in or through any thermal insulation.

Electric Surface Heating Systems

62-300 Electric Surface Heating

(1) Rules 62-302 to 62-314 apply to fixed surface heating system for pipe heating, melting of snow or ice on roofs or concrete or asphalt surfaces, soil heating and similar applications other than space heating.

(2) Heating cable sets installed in accordance with Rules 62-302 to 62-314 shall be Types 2A, 2B, 2C, 2D, 2E, 3A, 3B, 3C or 3D, as specified in Table 60, and so marked.

62-302 Installation of Fixtures

(1) If located so as to be exposed to rainfall, fixtures shall be provided with a weatherproof enclosure.

(2) All exposed metal surfaces of fixtures shall be bonded to ground.

62-304 Installation of Heating Units, General

(1) Heating units shall be installed so that adjacent materials will not be subjected to temperatures in excess of 90 degrees Celsius or such higher temperature as is lawful under Rule 2-030 if the heating units are approved for such higher temperature.

(2) No heating unit shall be installed closer than 13 millimetres to any exposed combustible surface unless the cable has a metal shield or sheath and is provided with a positive temperature control which will limit the surface temperature of the heating units to a value not exceeding 72 degrees Celsius.

62-306 Series Heating Cable Sets and Heating Panel Sets Installed Below the Heated Surface

(1) Series heating cable sets and heating panel sets installed outdoors under the surface of driveways, sidewalks, and similar locations shall:

- (a) Have a metal shield or sheath over the heating portion;
- (b) Be surrounded by noncombustible material throughout their length, including the point of connection to the non-heating leads;

(c) When embedded in concrete be embedded to a depth of at least 50 millimetres the concrete being reinforced except in sidewalks, and have a minimum depth of 150 millimetres where subject to vehicular traffic, or 100 millimetres where not subject to vehicular traffic;

(d) When embedded in asphalt:

(i) Be embedded:

(A) At least 25 millimetres after first being covered with iron or steel mesh not less than No. 10 gauge or greater than 100 millimetres mesh; or

(B) At least 25 millimetres after first being fastened securely to an asphaltic or equivalent base slab not less than 25 millimetres thick at intervals not exceeding 750 millimetres; and

(ii) Be installed so that adjacent runs of cable are 150 millimetres or less apart, and be rated at not more than 82 watts per metre; and

(iii) Be located not less than 300 millimetres from the edge of the driveway where no curbs are provided; and

(iv) Be supported on a substantial base of concrete or well-compacted crushed stone at least 150 millimetres deep.

(2) Nonmetallic series heating cable sets and heating panel sets installed indoors shall be not less than 25 millimetres from any uninsulated metal bodies located below the surface to be heated.

(3) Where heating cables do not have a metal sheath or shield, all uninsulated metal located at or below the surface to be heated shall be bonded to ground.

62-308 Heating Cable Sets Installed on or Wrapped Around Surfaces

(1) Heating cable sets installed on or wrapped around surfaces shall be secured in place by suitable fastening devices which will not damage the heating unit, and which are suitable for the temperature involved.

(2) Heating cable sets wrapped over valves or expansion joints in pipes shall be installed in such a manner as to avoid damage when movement occurs at these areas.

62-310 Parallel Heating Cable Sets

(1) Parallel heating cable sets shall be assembled and installed in accordance with the manufacturer's instructions.

(2) Branch circuits used to supply energy to parallel heating cable sets shall have a nominal voltage rating of 600 volts or less.

(3) Metal structures or materials used for the support of, or on which parallel heating cable sets are installed, shall be bonded to ground in accordance with Section 10.

62-312 Heating Cable Sets Installed In or On Nonmetallic Pipes, Ducts, or Vessels

(1) Heating cable sets intended for use in or on non-metallic pipes, ducts, or vessels shall be installed in accordance with the manufacturer's instructions.

(2) The temperature of the pipe, duct, or vessel shall be controlled by a thermostat or other equivalent means in such a manner that the temperature shall be low enough to eliminate the danger of damage to the pipe, duct or vessel.

(3) Internal heating or pipes, ducts, or vessels shall be limited to those not containing sewage solids, or flammable liquids.

(4) Where the pipes, ducts, or vessels are heated by an internal heating cable set, the heating cable set shall be provided with a non-heating section which shall pass through a suitable gland.

62-314 Marking. Pipes, ducts, or vessels with electric heating shall be suitably marked to indicate they are electrically traced if the systems are not readily visible throughout the length.

Other Heating Systems

62-400 Heating Cable Sets Installed in Pipes, Ducts, or Vessels

(1) Heating cable sets installed in pipes, ducts, or vessels shall be of a type acceptable for immersion in the liquid to be heated and shall be Type 4A or 4B, as specified by Table 60, and so marked.

(2) Where practicable, heating cable sets installed in pipes, ducts, or vessels shall be secured in place by suitable fastening devices which will not damage the heating cable set.

(3) Where the heating cable set passes through the pipe, duct, or vessel, it shall pass through a suitable gland.

(4) Where a metal raceway is required for the non-heating leads of a heating cable set installed in a pipe, duct, or vessel it shall be installed so that it will not become flooded in the event of the failure of the gland required by Subrule (3).

62-402 Pipeline Resistance Heating. Pipeline resistance heating equipment shall conform to the following:

- (a) Voltage applied to the piping shall not exceed 30 volts, and the supply shall be from an isolating type transformer;
- (b) No part of the extra-low-voltage circuit, including the conductors and the piping in the loop used for heating shall be bonded to ground;
- (c) Pipe hangers shall have insulating bushings, or be made of insulating material;
- (d) Pipes shall have a minimum clearance of 100 millimetres from adjacent material, and from each other, except from hangers or supports;
- (e) Where pipes pass through walls, floors, or ceilings, they shall be bushed with insulating bushings or have 100 millimetres of clearance as required in Paragraph (d);
- (f) Vertical runs shall be supported every 6 metres or at each floor, whichever distance is less, with insulating hangers, and shall be firestopped at each floor;
- (g) Horizontal runs shall be supported every 3 metres at least;
- (h) Pipes used as heating elements shall be electrically insulated, and guarded, or shielded;
- (i) Pipes shall be protected from mechanical damage or installed in such a manner that the building beams or framing provide mechanical protection;
- (j) All pipes used for conductors in the electrical circuit shall be of the same diameter and of the same material;
- (k) Joints shall be at least as electrically conductive as the adjacent piping such as provided by welding or bonding.

62-500 Heaters for Sauna Rooms

(1) Heaters for sauna rooms shall be marked as being suitable for the purpose.

(2) Sauna heaters shall be installed in rooms that are built in accordance with the nameplate size specifications and shall be fastened securely in place to ensure that the minimum safe clearances indicated on the nameplate are not reduced.

(3) Each sauna heater shall be controlled by a thermostat or other temperature regulating device installed in accordance with the manufacturer's instructions.

(4) Sauna heaters shall not be installed below shower heads or water spray devices.

(5) Each sauna heater shall be controlled by a timed

cut-off switch, having a rating suitable for the application, and having a maximum time setting of one hour with no override feature, which switch shall be mounted on the outside wall of the room containing the sauna heater, and connected so as to be capable of disconnecting all ungrounded conductors in the circuit supplying the heater.

SECTION 66—AMUSEMENT PARKS—MIDWAYS—CARNIVALS TRAVELLING SHOWS

Scope and Application

66-000 Scope

(1) This Section applies to the installation of electrical equipment for amusement parks, midways, carnivals and travelling shows and is supplementary to, or amendatory of the general requirements of this Code.

66-002 Special Terminology. In this Section the following definitions apply:

- (a) "Amusement ride" means a device or combination of devices designated or intended to entertain or amuse people by physically moving them;
- (b) "Amusement Park" means a tract of land used as a temporary or permanent location for amusement rides and structures;
- (c) "Concession" means a structure, or a combination of structures erected for the purpose of entertaining or amusing people with games or shows and for the dispensing of food, souvenirs and tickets.

General

66-100 Supporting of Conductors

(1) Only decorative lighting, signal, communication, and control circuits shall be supported on structures that support amusement rides.

(2) The decorative lighting and control circuits of one amusement ride shall not be installed on a supporting structure of another ride.

(3) Overhead conductors shall have a vertical clearance to finished grade of not less than the following:

- (a) Across highways, streets, lanes and alleys 5.5 metres;
- (b) Across areas accessible to vehicles 5 metres;
- (c) Across areas accessible to pedestrians 3.5 metres.

66-102 Protection of Electrical Equipment. Mechanical protection of electrical equipment must be

acceptable for the conditions of use for the particular location.

Grounding

66-200 Grounding. The service and electrical distribution shall be grounded in accordance with Section 10 of this Code.

66-202 Equipment Bonding

(1) Exposed non-current carrying metal parts of fixed electrical equipment such as motor frames, starters and switch boxes; parts of rides, concessions and ticket booths and moving electrically operated equipment shall be bonded to ground by:

- (a) means of the bonding conductor in the supply cord; or
- (b) means of a separate insulated flexible No. 6 AWG copper bonding conductor.

(2) Cord connected operator controlled remote stations shall be bonded to ground.

Services and Distribution

66-300 Service Equipment

(1) Service equipment shall be of a size suitable for the connected load;

(2) Where accessible to unauthorized persons enclosures for service equipment shall be capable of being locked.

66-302 Mounting of Service Equipment. Service equipment shall be mounted on a solid backing and:

- (a) be located so as to be protected from the weather;
- (b) be installed in a weather proof enclosure; or
- (c) be of weather proof construction.

66-304 Distribution Equipment

(1) Each concession and ride shall be provided with a fused disconnect switch or circuit breaker.

(2) Where accessible to unauthorized persons enclosures for switches, panelboards and splitters shall be capable of being locked.

Wiring Methods and Equipment

66-400 Wiring Methods

(1) Wiring methods shall be in accordance with Section 12 and suitable for the condition of use.

(2) Cords, cables, conduits and other electrical equipment, shall be protected from physical damage.

(3) Flexible supply cords shall be of the extra hard usage type and:

- (a) provided with strain relief where they enter into enclosures; and
- (b) if exposed to the weather, be of a type suitable for outdoor use.

66-402 Equipment

(1) Lighting streamers shall be made up of extra hard usage outdoor flexible cord with pin type sockets or with pig tail sockets attached to the cord by acceptable means.

(2) Fluorescent fixtures shall not be mounted end-to-end unless they are marked for that purpose.

(3) Incandescent lampholders shall be of the screwbase type.

Motors

66-500 Motors. Motors, including the protection and control for the motors, shall be installed in accordance with Section 28.

66-502 Location. Motors shall be installed only in dry locations unless they are of a type specifically marked for other locations.

66-504 Portable Motors. Connections to portable motors are permitted to be made with flexible cord which shall have a serviceability not less than Type SOW for outdoor use.

SECTION 68—POOLS, TUBS AND SPAS

Scope

68-000 Scope

(1) This Section applies to:

- (a) Electrical installations and electrical equipment in or adjacent to pools; and
- (b) Non-electrical metal accessories in a pool or within 3 metres of the inside wall of a pool.

(2) A pool is deemed to include:

- (a) Permanently installed and storable swimming pools;
- (b) Hydromassage bathtubs;
- (c) Spas and hot tubs;
- (d) Wading pools;
- (e) Baptismal pools; and
- (f) Decorative pools.

(3) The requirements of this Section are supplementary to, or amendatory of, the general requirements of this Code.

General

68-050 Special Terminology. In this Section the following definitions shall apply:

- (a) "Permanently installed swimming pool" means a pool constructed in such a manner that it cannot be disassembled for storage;
- (b) "Storable swimming pool" means a pool constructed in such a manner that it may be readily disassembled for storage and reassembled to its original integrity;
- (c) "Forming shell" means a structure intended for mounting in a swimming pool structure to support a wet-niche luminaire assembly;
- (d) "Wet-niche luminaire" means a luminaire intended for installation in a forming shell mounted in a pool structure where the luminaire will be completely surrounded by pool water;
- (e) "Dry-niche luminaire" means a luminaire intended for installation in the wall of the pool in a niche which is sealed against the entry of pool water by a fixed lens;
- (f) "Spa" or "hot tub" means a pool or tub designed for the immersion of persons in heated water circulated in a closed system incorporating a filter, heater, pump, and with or without a motor driven blower but not intended to be filled and drained with each use;
- (g) "Hydromassage bathtub" means a permanently installed bathtub having an integral or remote water pump or air blower, and having a fill and drain water system, and includes therapeutic pools;
- (h) "Leakage current collector" means a section of corrosion-resistant metal tubing at least five times as long as its diameter, provided with a brazed or welded copper lug; all placed in a run of nonmetallic pipe to provide a path to ground for leakage current originating from devices in contact with pool water;
- (i) "Decorative pool" means a pool that could be used as a wading pool, that is larger than 1.5 metres in any dimension, and that is readily accessible to the public.

68-052 Electrical Wiring or Equipment in Pool Walls or Water. Electrical wiring or equipment shall not be installed in the walls nor in the water of pools except as permitted by this Section.

68-054 Overhead Wiring

(1) No pool shall be placed under or near overhead wiring and no overhead wiring shall be placed over or near a pool unless the installation complies with the requirements of this Rule.

(2) There shall not be any overhead wiring above the pool, diving structure, observation stand, tower or platform, or above the area extending 3 metres horizontally from the pool edge except as permitted by Subrules (3) and (4).

(3) Insulated communication conductors, communication antenna distribution conductors, and neutral supported cables not exceeding 750 volts shall be permitted to be located over a pool, diving structure, observation stand, tower, or platform, or above the area extending 3 metres horizontally from the pool edge, providing there is a clearance (measured radially) of at least 4.5 metres.

(4) Conductors other than those covered by Subrule (3) and operating at not more than 50 kilovolts phase-to-phase shall be permitted to be located above a pool, diving structure, observation stand, tower or platform, or above the area extending 3 metres horizontally from the pool edge, providing there is a clearance (measured radially) of at least 7.5 metres.

68-056 Underground Wiring. The horizontal separation between the inside walls of a pool and underground conductors, except for bonding conductors or conductors supplying electrical equipment associated with the pool and protected by a ground fault circuit interrupter, shall be not less than that shown in Table 61.

68-058 Bonding to Ground

(1) The metal parts of the pool and of other non-electrical equipment associated with the pool such as piping, pool reinforcing steel, ladders, diving board supports, and fences within 1.5 metres of the pool shall be bonded together and to non-current carrying metal parts of electrical equipment such as decorative type pool luminaires and lighting equipment not located in a forming shell, forming shells, metal screens of shields for underwater speakers, conduit, junction boxes, and the like by a copper bonding conductor.

(2) Pool reinforcing steel shall be bonded with a minimum of four connections equally spaced around the perimeter.

(3) Bonding conductors for pools shall be:

- (a) Not smaller than No. 6 AWG for permanently installed pools and for all in-ground pools; or
- (b) As required by Table 16 for all other pools.

(4) Metal sheaths and raceways shall not be relied upon as the bonding medium and a separate copper

bonding conductor shall be used, except that a metal conduit between a forming shell and its associated junction box are permitted to be used as the bonding medium if the forming shell and junction box are installed in the same structural section.

(5) The bonding conductor from the junction box referred to in Rule 68-060 shall be run to the main distribution panelboard, and if smaller than No. 6 AWG, shall be installed and mechanically protected in the same manner as the circuit conductors.

(6) The bonding conductor in Subrule (4) shall be of copper and not smaller than that required by Table 16, except that the bonding conductor for an in-ground pool shall be not smaller than No. 6 AWG.

(7) Notwithstanding Subrule (1), the metal parts of a pool need not be bonded to ground or to each other where the electrical equipment associated with the pool is:

- (a) Not located within 3 metres of the pool; or
- (b) Suitably separated from the pool by a fence, wall, or other barrier; or
- (c) Approved without a bonding conductor.

68-060 Junction and Deck Boxes

(1) Junction boxes are permitted to be submerged in decorative pools provided the boxes are marked for such usage.

(2) Junction boxes installed on the supply side of conduits extending to forming shells, referred to hereinafter as deck boxes, shall be specifically approved for the purpose.

(3) Deck boxes shall be provided with a means for independently terminating at least three bonding conductors inside the box and one No. 6 AWG bonding conductor outside the box.

(4) Deck boxes shall not contain the conductors of any circuits other than those used exclusively to supply the underwater equipment.

(5) Deck boxes shall be provided with electrical continuity between every connected metal conduit and the bonding terminals by means of copper, brass, or other corrosion-resistant metal that is integral with the box.

(6) Deck boxes shall be installed:

- (a) Above the normal water level of the pool; and
- (b) So that the top of the box is located at or above the finished level of the pool deck; and
- (c) In such a manner or location that the box will not be an obstacle; and

- (d) In such a manner that any water on the deck will drain away from the box.

(7) Junction boxes and conduit shall be water-tight and provided with a packing seal that will seal around the cord and effectively prevent water from entering the box through the conduit from the forming shell.

68-062 Transformers and Transformer Enclosures

(1) Transformers shall not be located within 3 metres of the inside wall of the pool unless suitably separated from the pool area by a fence, wall, or other permanent barrier which will make the transformer not accessible to persons using the pool area.

(2) A metal shield, if provided between the primary and secondary windings of a transformer, shall be bonded to ground.

(3) Audio isolation transformers shall:

- (a) Be connected between the audio output terminals of each amplifier and any loudspeaker which is located within 3 metres of the pool wall; and
- (b) Be located in or adjacent to the amplifier with which they are used; and
- (c) Have an audio output voltage of not more than 75 volts.

68-064 Receptacles

(1) Receptacles shall not be located within 1.5 metres of the inside walls of the pools.

(2) Receptacles located between 1.5 metres and 3 metres of the inside walls of a pool shall be protected by a ground fault circuit interrupter.

(3) In maintaining the dimensions referred to in this Rule, the distance to be measured is the shortest path which the power supply cord of an appliance connected to the receptacle would follow without piercing a building floor, wall, or ceiling.

68-066 Luminaires and Lighting Equipment

(1) Wet-niche or submersible luminaires shall:

- (a) Except for decorative pools, be mounted in forming shells which shall have provision for a suitable connection to the wiring method used;
- (b) Unless specifically approved and marked for submersion at a greater depth, not be submersed in the pool water at a depth of more than 600 millimetres, such distance being measured from the centre of the lens face of the luminaire to the normal water level; and
- (c) Operate with neither the supply voltage to the

luminaire nor its associated ballast or transformer, if applicable, nor the secondary open-circuit voltage of the ballast or transformer exceeding 150 volts during either starting or operating conditions.

(2) Where dry-niche luminaires are installed so as to be accessible from a walkway or a service tunnel outside the walls of the pool or from a closed, drained recess in the walls of the pool, neither the supply voltage to the fixture nor its associated ballast or transformer shall exceed 300 volts during either starting or operating conditions.

(3) Dry-niche luminaires shall be accessible for maintenance:

- (a) From a service tunnel or walkway outside the walls of the pool; or
- (b) Through a handhole in the deck of the pool to a closed, drained recess in the wall of the pool.

(4) Metal parts of luminaires in contact with the pool water shall be of brass or other suitable corrosion-resistant material.

(5) Luminaires installed below, or within 3 metres of the pool surface or walls, and not suitably separated from the pool area by a fence, wall or other permanent barrier shall be electrically protected by a ground fault circuit interrupter.

(6) Standards or supports for luminaires shall not be installed within 3 metres of the inside walls of a swimming pool unless such luminaires are protected by ground fault circuit interrupters.

(7) Forming shells for lamps supplied from a grounded circuit or a circuit operating at a voltage exceeding 30 volts shall be metal and have provision for a threaded connection to a rigid metal conduit.

68-068 Ground Fault Circuit Interrupters

(1) Except as permitted in Subrule (2), ground fault circuit interrupters required by the Rules of this Section shall be of the Class A type.

(2) Where ground fault circuit interrupters of the Class A type are not available due to rating, the equipment is permitted to be protected by a ground fault circuit interrupter which will clear a ground fault within the time specified for a Class A type interrupter.

(3) Ground fault circuit interrupters shall be permanently connected.

(4) Ground fault circuit interrupters are permitted to be applied to a feeder, a branch circuit, or an individual device.

(5) A warning sign shall be located beside the switches controlling circuits electrically protected by

ground fault circuit interrupters advising that the circuits are so protected and that the equipment shall be tested regularly.

(6) Ground fault circuit interrupters shall be installed in a location which will facilitate the testing required in Subrule (5) but not closer than 3 metres to the pool water.

(7) Except as permitted by Rule 68-070, the following equipment shall be protected by a ground fault circuit interrupter:

- (a) Electrical equipment placed in the water in the pool; and
- (b) Audio amplifiers connected to loudspeakers in the pool water; and
- (c) Electrical equipment located within the confines of the pool walls or within 3 metres of the inside walls of the pool and not suitably separated from the pool area by a fence, wall, or other permanent barrier; and
- (d) Receptacles or appliance located in wet areas of a building, and associated with the swimming pool, such as locker and change rooms.

68-070 Other Electrical Equipment. Loudspeakers installed beneath the pool surface:

- (a) Shall be mounted in a recess in the wall or floor of the pool and shall be enclosed by a separate, rigid, corrosion-resistant metal screen; and
- (b) Shall be connected to their audio isolating transformers by ungrounded wiring.

Permanently Installed Swimming Pools

68-100 Wiring Method

(1) Rigid conduit of copper or other corrosion-resistant metal or rigid PVC conduit, shall be provided between the forming shell of luminaires installed below the pool surface and the junction box referred to in Rule 68-060.

(2) The wiring method between the wet-niche luminaires and the junction boxes referred to in Rule 68-060 shall be flexible cord suitable for use in wet locations and supplied as a part of the luminaire.

(3) Where Subrules (1) and (2) do not apply, any acceptable wiring method specified in Section 12 is permitted to be used.

(4) Conductors on the load side of each ground fault circuit interrupter shall be kept entirely independent of all other wiring which is not so protected and shall not enter a luminaire, raceway, box, or cabinet occupied by other wiring except for panelboards which house the interrupters.

(5) Conduits in the walls and deck of a swimming pool shall be installed so that suitable drainage is provided.

Storable Swimming Pools

68-200 Electrical Equipment. No electrical equipment shall be located in the pool water or on the pool wall unless specifically approved for the purpose.

68-202 Pumps

(1) Swimming pool pumps shall be:

- (a) Supplied from a permanently installed receptacle located not less than 1.5 metres nor more than 7.5 metres from the pool wall; and
- (b) Protected by a ground fault circuit interrupter if located within 3 metres of the inside walls of the pool and not suitably separated from the pool area by a fence, wall, or other permanent barrier.

(2) Swimming pool pumps located within 3 metres of the pool walls shall be specifically approved for the purpose.

Hydromassage Bathtubs

68-300 Protection. Electrical equipment forming an integral part of a hydromassage bathtub shall be protected by a ground fault circuit interrupter of the Class A type.

68-302 Control

(1) A hydromassage bathtub shall be controlled by an automatic shut-off timer with an "on" time of not more than 30 minutes.

(2) Electric controls associated with a hydromassage bathtub shall be located behind a barrier or shall be located not less than 1 metre horizontally from the wall of the hydromassage bathtub, unless they are an integral part of an approved factory built hydromassage bathtub.

(3) Subject to Subrule (2) and notwithstanding Subrule 68-068(6), ground fault circuit interrupters shall be permitted to be closer to the pool than 3 metres but not less than 1.5 metres from the pool wall.

68-304 Other Electric Equipment. Luminaires, switches, receptacles, and other electrical equipment not directly associated with a hydromassage bathtub shall be installed in accordance with the Rules of this Code covering the installation of that equipment in bathrooms.

Spas and Hot Tubs

68-400 General. Rules 68-402 to 68-408 apply to the installation of spas and hot tubs.

68-402 Bonding to ground

(1) Metal parts of spas and hot tubs shall be bonded together and to ground in accordance with Rule 68-058.

(2) Notwithstanding Subrule (1), metal rings or bands used to secure staves of wooden hot tubs need not be bonded.

(3) A copper bonding conductor sized not less than the circuit conductors supplying the equipment shall be connected between the control panel of a spa or hot tub and the consumer's service or distribution panel.

68-404 Controls and Other Electrical Equipment

(1) Controls for a spa or hot tub shall be located behind a barrier or shall be located not less than 1.5 metres horizontally from the spa or hot tub, unless they are an integral part of an approved factory built spa or hot tub.

(2) Receptacles shall be installed in accordance with Rule 68-064.

(3) Luminaires shall be installed in accordance with Rule 68-066.

68-406 Leakage Current Collectors

(1) Leakage current collectors shall be installed in all water inlets and in all water outlets of a field assembled spa or hot tub so that all water flows through the leakage current collectors.

(2) Leakage current collectors shall be electrically insulated from the spa or hot tub and shall be bonded to the control panel or the main service ground with a copper bonding conductor.

(3) Notwithstanding Subrule (1), leakage current collectors shall not be required in a system in which the only electrical component is a pump marked as an insulated wet end pump.

(4) The bonding conductor for leakage current collectors shall be not smaller than required by Table 16 where the bonding conductors are mechanically protected in the same manner as the circuit conductors, or a minimum No. 6 AWG copper conductor.

68-408 Field Assembled Units

(1) Spas and hot tubs field assembled with individual components shall be installed in accordance with Rules 68-400 to 68-406 and Subrules (2) and (3).

(2) Individual components, such as pumps, heaters, and blowers, shall be specifically approved for use with spas or hot tubs.

(3) Air blowers shall be installed above the tub rim, or other acceptable means used to prevent water from contacting blower live parts.

**SECTION 70—ELECTRICAL
REQUIREMENTS FOR FACTORY-
BUILT RELOCATABLE STRUCTURES
AND NON-RELOCATABLE STRUCTURES**

Scope**70-000 Scope**

(1) Rules 70-100 to 70-130 apply to relocatable structures (factory-built) towable on their own chassis, for use without permanent foundations having provision for connection to utilities and include:

- (a) Mobile homes; and
- (b) Mobile commercial and industrial structures.

(2) Rules 70-200 to 70-204 apply to non-relocatable structures (factory built) for use on permanent foundations and include:

- (a) Housing (residential); and
- (b) Commercial and industrial structures.

(3) These Rules do not apply to recreational vehicles covered by CSA Standard CAN/CSA-Z240 RV, Recreational Vehicles.

(4) This Section is supplementary to or amendatory of the general requirements of this Code.

Relocatable Structures

70-100 Equipment. Electrical components including those connected in Class 1 extra-low-voltage power circuits (e.g. lighting fixtures) and in Class 2 extra-low-voltage circuits shall conform with the requirements of the Canadian Electrical Code Part II and be suitable for the application.

70-102 Method of Connection

(1) Subject to the conditions of Subrule (2) of this rule, the method of connection to the supply circuit shall be:

- (a) Connection to an overhead or underground supply;
- (b) Power supply cord set; or
- (c) A length of flexible cord or cable without an attachment plug.

(2) For mobile homes the method of connection to the power supply shall be directly to an overhead or underground supply or such other method as is lawful under Rule 2-030.

70-104 Connection to an Overhead or Underground Supply

(1) Where the supply connection is directly to an overhead or underground supply a conduit nipple

or a length of rigid conduit shall be provided and shall:

- (a) Project from the structure through the exterior wall, roof, or floor to permit attachment of a conduit fitting;
- (b) Have a suitable cap on the exposed end;
- (c) Terminate at the disconnecting means, at an intermediate box, or, for other than mobile homes, at the distribution equipment if a disconnecting means is not provided; and
- (d) Be of sufficient size to accommodate copper conductors of a calculated ampacity for the load involved, except:
 - (i) where the structure is specifically designed for connection by conductors other than copper; or
 - (ii) as specified in Subrule (3).

(2) For mobile homes the conduit shall project so that it is readily accessible for power supply connection.

(3) For mobile homes the size of conduit shall not be less than that specified in Table 48.

(4) Where it is intended or it is likely that the system grounding conductor be run separately, a non-metallic raceway shall be installed at the time of manufacture for this purpose.

70-106 Service for Communication Systems. All mobile homes shall be provided with a length of metal conduit, 1/2-inch or larger, for use as a communication service which shall:

- (a) Project from the structure a minimum of 75 millimetres through the floor;
- (b) Terminate at least 300 millimetres above the finished floor in a wall or partition in a standard metallic switch or outlet box complete with cover;
- (c) Be bonded to the frame of the mobile home; and
- (d) Have a suitable cap on the exposed end of the conduit stub.

70-108 Power Supply Cord or Cord Set

(1) Where a power supply cord or cord set is used except as provided for in Subrule (4) the cord shall:

- (a) Be provided as part of the mobile vehicle;
- (b) Have an ampacity not less than the ampere rating of the attachment plug;
- (c) Be of the extra hard usage type suitable for outdoor use as specified in Table 11;

(d) Have separate identified and grounding conductors;

(e) Be not less than 7.5 metres in length, as measured from the attachment plug to the point of entrance to the unit;

(f) If a permanently connected power supply cord, terminate at the main disconnecting means in the unit or at a box in or on the unit, suitable space being provided in the unit for storage of the cord when not in use to protect it from damage; and

(g) Have a suitable grounding type attachment plug having an ampere rating not less than that of the service conductor ampacity required by Section 8 for applications specified therein, or that for which it is approved for other applications.

(2) Bushings of rubber, unless of an oil-resistant compound, shall not be used where they are so located as to be exposed to mechanical injury.

(3) Where a cord set is used a male receptacle is to be provided on the unit which shall:

(a) Be of weatherproof construction unless adequately protected or enclosed;

(b) Have a contact arrangement which will mate with the cord connector on the cord; and

(c) Have a current rating not less than that of the main overcurrent protection.

(4) A cord or cord set may be used for mobile homes if their use is lawful under Rule 2-030 and,

(a) Are not smaller than No. 6 AWG;

(b) Have an attachment plug moulded to the cord with configuration designated as CSA 14-50P (3-pole, 4-wire, 125/250 volt, 50 amperes); and

(c) Enter where it will not be subject to mechanical damage.

70-110 Disconnecting Means and Main Overcurrent Protection

(1) Except as provided for in Subrule (2) each structure shall be provided with:

(a) A service box or a combined service and distribution box located within the structure with provision for grounding the neutral;

(b) Main overcurrent protection having a current rating at least equal to the minimum ampacity of the consumer's service as determined in accordance with Section 8 but in no case less than 50 amperes for mobile homes and not exceeding the ampacity of the supply conductors actually used except as permitted by Rule 14-104; and

- (c) The identified conductor shall be:
- (i) Connected to ground within the mobile structure if a power supply cord or cord set is not provided; or
 - (ii) Isolated from ground if a power supply cord or cord set is used.

(2) For other than mobile homes the structure may be provided with distribution equipment in lieu of the type of service equipment listed in Subrule (1) where such service equipment is provided in the supply to the unit.

70-112 Location of Service or Distribution Equipment.

Service or distribution equipment shall be:

- (a) Readily accessible;
- (b) Not located in clothes closets unless in its own compartment, in bathrooms, in stairways, or in any similar or undersirable location;
- (c) Within the structure with consideration being given to the possibility of the formation of condensation;
- (d) As close as practicable to the point where the supply conductors enter the structure; and
- (e) Of the circuit-breaker type if in other than extra-low-voltage circuits and if mounted less than 1.5 metres above the floor in which case it shall be protected from mechanical injury.

70-114 Wiring Methods—General

(1) The wiring method shall be as specified in Section 12 except where flexible cords are permitted in Rule 70-116 or for Class 2 circuits.

(2) Surfaces against which conductors are in contact shall be smooth and entirely free from sharp edges and burrs which may cause abrasion of the insulation of the conductors;

(3) Where cable is required to be protected from mechanical injury by Rules 12-516, 12-616, and 12-710 plates or tubes of sheet steel of at least No. 16 MSG or the equivalent, secured in place, shall be used to protect the cable from driven nails, screws or staples.

(4) Cable run through holes in joists or studs shall be considered to be secured for purposes of Rules 12-510 and 12-618.

(5) Unless provided with insulation suitable for the highest voltage involved, insulated conductors of low voltage and extra-low voltage circuits shall be separated by barriers, or shall be segregated by clamping, routing, or equivalent means which will ensure permanent separation and shall in any case be so sepa-

rated or segregated from bare live parts of the other circuit.

(6) For purposes of Subrule (5) the jacket of non-metallic sheathed cable shall be considered to be a suitable barrier.

(7) Bare live parts, including terminals of electrical equipment in extra-low-voltage circuits other than Class 2 circuits shall be enclosed in accordance with Rule 2-202 (1).

(8) Conductors for extra-low-voltage Class 2 circuits shall be Type LVT, low-energy safety control cable or equivalent and if protected by fuses, in accordance with Rule 16-200, the fuses shall not be interchangeable with those of higher ratings.

70-116 Wiring Methods, Swing-out and Expandable Room Sections

(1) The means used to make electrical connections between a swing-out or expandable room section and the wiring in the main section of the structure shall be located or protected so that there is no likelihood of damage to the interconnecting means when the section is extended or retracted or when the structure is in transit.

(2) A flexible cord or power supply cable shall be used as an interconnecting means where flexibility is involved and shall:

- (a) Be of the extra-hard usage type;
- (b) Have an ampacity suitable for the connected load but in no case be smaller than No. 14 AWG;
- (c) Be of the outdoor type if it has thermoplastic insulation or is exposed to the weather; and
- (d) Incorporate a grounding conductor.

(3) A plug, connector, or fitting used in conjunction with a flexible cord for electrical interconnections shall have an electrical rating suitable for the maximum connected load and if located outside of the mobile home shall be protected from the weather or other adverse conditions (including when the structure is in transit).

70-118 Wiring Methods, Multiple Section Mobile Units

(1) Provision shall be made for interconnection of circuits in each section of multiple section units.

(2) The means for interconnection shall be such that no bare live parts of a low-voltage circuit are exposed to accidental contact should any section be temporarily energized before the other sections are in place.

70-120 Branch Circuits, Mobile Homes

(1) Circuits other than those referred to in Rules 26-748, 26-752, 26-806, 26-808 and 62-108 supplying permanently connected appliances may have

additional outlets, but not receptacles, provided that these outlets are for fans, stationary lighting fixtures, or similar permanently connected appliances.

(2) The outlets referred to in Subrule (1) shall be considered to have a demand of 1 ampere each, except where the load is known to be greater, and in no case shall the total load exceed 80 per cent of the rating of the overcurrent device protecting the circuit.

(3) Notwithstanding Rule 8-104, a circuit supplying an electric water heater having an input not more than 1,500 watts at 115 volts or 3,000 watts at 230 volts may have overcurrent protection rated or set at 15 amperes.

(4) In determining compliance with Rule 62-108 (2), fans on oil or gas heaters which are not required for the operation of the heaters and are rated not more than 3 amperes, are not required to be on individual branch circuits.

70-122 Receptacles and Switches

(1) In applying Rule 26-702(2), a hallway need not be considered as a room.

(2) The receptacles required by Rule 26-702(6) to be installed at counter or table height shall be located not less than 750 millimetres and not more than 1.2 metres above the floor.

(3) Switches of the pull-type including those for fans and lights shall conform with Rule 30-610.

(4) Where a ceiling mounted, rigid lighting fixture or lampholder is located at a height of less than 2 metres above the floor and is readily accessible, the fixture or lampholder shall be protected from mechanical injury, by a guard or by location.

(5) Notwithstanding Rule 26-702(16), a receptacle installed on the underside of a mobile home, intended for the use of electric heating for plumbing pipes, need not be protected by a ground fault circuit interrupter if the receptacle is located within 600 millimetres of the cold water inlet and at least 900 millimetres from the outside edge of the mobile home.

70-124 Ventilating Fans Used in Kitchen Areas

(1) The motor of any fan installed in the kitchen area above or in the vicinity of cooking equipment and which is located in the air stream shall be of the totally-enclosed type unless specifically approved for this application.

(2) For purposes of Subrule (1) the "area above or in the vicinity of cooking equipment" is:

(a) That portion of any wall located within 1.2 metres of the cooking surface, as measured from any point on the cooking surface, regardless of the height of such walls; and

(b) That portion of the ceiling defined by a rectangle having sides parallel to the edges of

the cooking surface and located within 1.2 metres of a vertical projection of the cooking surface, as measured from any point on this projection, regardless of the height of such ceiling.

(3) For purposes of Subrule (2), the "cooking surface" of a built-in oven is the area of a bottom-hinged door of a size required to close the oven opening, when such a door is in the fully-opened (horizontal) position and for a freestanding stove or range (with or without an oven) or a built-in counter top surface element unit, the "cooking surface" is the entire top surface of the unit, including the back-splash (if any).

(4) For the purposes of Subrules (1), (2), and (3) if any full-height wall or partition is located within the space defined above, the space beyond this full height is not included in this restriction.

70-126 Grounding and Bonding

(1) All major exposed metal parts that may become energized, including the water, gas, and waste plumbing, the roof and outer metallic covering, the chassis and metallic circulating air ducts shall be in good electrical contact with one another and with the termination of the grounding conductor of the supply circuit at the disconnecting means for the purpose of grounding and bonding.

(2) The metallic roof and exterior covering shall be considered bonded as required by Subrule (1):

(a) If the metal panels overlap one another and are securely attached to the wood or metal frame parts by metallic fasteners; and

(b) If bonded to the chassis by metallic fasteners or by a metal strap.

(3) All exposed non-current carrying metal parts of a swing-out or expandable room section shall be reliably bonded to the exposed non-current carrying metal parts of the main section of the mobile unit.

(4) The grounding conductors of the low voltage wiring system other than the chassis shall not be used to carry current of any extra-low potential circuit.

(5) Grounding and bonding connections and terminals shall be:

(a) Made of non-ferrous metal or plated steel;

(b) Used for no other purpose than grounding or bonding except for bonding between the chassis and skin where assembly screws may be used;

(c) Protected from mechanical injury; and

(d) Readily accessible for inspection and maintenance.

(6) Bare grounding and bonding conductors shall be located so that there is no danger of contact with live parts but if their location or flexibility is such that separation from live parts is not assured they shall be insulated from tapping or sleeving.

(7) A bonding conductor between the chassis and the distribution panel may be insulated or bare and shall:

- (a) Be of copper and be protected from salt spray;
- (b) Be of a size not smaller than that specified in Table 41 for a structure having a rated input current corresponding to the ampere values specified in Column 1 of that Table;
- (c) Be so located that they will not be subject to mechanical injury; and
- (d) Be suitably secured within 300 millimetres of the attachment to the chassis.

(8) Bonding conductors other than those referred to in Subrule (7) shall have adequate ampacity but in no case less than that of a No. 14 AWG copper conductor.

70-128 Marking

(1) Units to which the main power supply connection is made shall be marked in a permanent manner in a place where the details will be readily visible with the following information as required by Rule 2-100.

- (a) Manufacturer's name, trademark, tradename or other recognized symbol of identification;
- (b) Model, style or type designation;
- (c) Nominal voltage of the system to which the unit is to be connected (e.g. 120, 120/240, etc.);
- (d) Rated frequency;
- (e) Rated input current in amperes.

(2) For purposes of Paragraph (e) of Subrule (1) the rated input current in amperes is:

- (a) The ampere rating of the main overcurrent protection, if provided;
- (b) The ampere rating of the distribution equipment, if no main overcurrent protection and no power supply cord are provided; or
- (c) The ampere rating of the attachment plug if provided.

(3) Markings adjacent to the main and branch circuit overcurrent devices shall be provided in accordance with Rule 2-100 (3).

(4) For multiple section mobile homes, or structures, each section shall be suitably and permanently marked to identify the other sections to be used with it to form a single structure.

(5) Unless it is otherwise clearly evident, instructions shall be provided on the main section of multiple section mobile homes or structures to indicate the

interconnections necessary to complete the installation.

70-130 Tests

(1) The following tests shall be performed on the complete assembly at the factory:

- (a) **Continuity.** All circuits, including grounding circuits shall be tested for continuity;
- (b) **Insulation Resistance.** The insulation resistance between live parts and ground at the completion of a one-minute application of a 500 volt dc test voltage shall be not less than that specified in Table 24.

(2) As an alternative to the insulation resistance test specified in Subrule (1) (b), an ac dielectric strength test may be performed, in which case an ac voltage of 900 volts shall be applied for 1 minute (or 1,080 volts for 1 second) between all live parts and non-current carrying metal parts without breakdown occurring.

(3) In performing either the insulation resistance or the dielectric strength test, the neutral shall be disconnected from ground for the test and be re-connected afterwards.

Non-Relocatable Structures (Factory Built)

70-200 General. Rules 70-100, 70-112, 70-114, 70-118, 70-122, 70-124, 70-126, 70-128 and 70-130 shall also apply to non-relocatable structures.

70-202 Connection to Overhead and Underground Supply

Provision shall be made at the factory for the electricians in the structure to be connected either to an overhead or underground power supply through conduit nipples or equivalent and supports which shall:

- (a) Be of sufficient size to accommodate conductors having the minimum ampacity determined by Section 8 of this Code; and
- (b) Be limited in number to meet the limitations set out in Rules 6-102 and 6-200.

70-204 Service and Distribution Equipment

(1) Provision shall be made at the factory for the installation either at the factory or on the job site of a service box or other approved service equipment in the structure which shall be:

- (a) In a readily accessible location within the building and as close as practicable to the point where the service conductors enter the building; and
- (b) Within the individual units where multiple occupancy residential condominium or row house structures are involved or in a central location accessible to all tenants in all other cases.

(2) Each complete structure shall be provided with distribution equipment.

SECTION 72 — MOBILE HOME AND RECREATIONAL VEHICLE PARKS

Scope and Application

72-000 Scope

(1) Rules 72-100 to 72-112 apply to services and distribution facilities for mobile home and recreational vehicle parks.

(2) This Section is supplementary to or amendatory of the general requirements of this Code.

General

72-100 Service. Each mobile home and recreational vehicle park and/or consumer service shall be provided with service equipment in accordance with the applicable requirements of Section 6 of this Code.

72-102 Demand Factors for Service and Feeder Conductors

(1) The minimum ampacity of the consumer service and feeder conductors for mobile home parks shall be based on the requirements of Rules 8-200 and 8-202.

(2) The minimum ampacity of the consumer service and feeder conductors in the case of recreational vehicle parks shall be calculated on the basis of the ampere rating of the receptacles and applying the following demand factors:

- (a) 100 per cent of the sum of the first 5 receptacles having the highest ampere ratings; plus
- (b) 75 per cent of the sum of the ampere ratings of the next 10 receptacles having the same or next smaller ratings to those specified in Paragraph (a); plus
- (c) 50 per cent of the sum of the ampere ratings of the next 10 receptacles having the same or next smaller ratings to those specified in Paragraph (b); plus
- (d) 25 per cent of the sum of the ampere ratings of the remainder of the receptacles.

(3) Where 3 wire circuits are involved in the application of Subrule (2) consideration shall be given to the distribution of 2-pole receptacles on each half of the circuit.

72-104 Feeders. Feeders between the park consumer's service equipment and the park distribution centres are permitted to be installed in accordance with the applicable requirements for service conductors.

72-106 Overcurrent Devices and Disconnecting Means for Recreational Vehicles

(1) The circuit for each receptacle for a recreational

vehicle lot shall be preceded by an individual overcurrent device not exceeding the rating of the receptacle involved and by a suitable disconnecting means.

(2) The disconnecting means shall be accessible.

72-108 Overcurrent Devices and Disconnecting Means for Mobile Homes

(1) The circuit for each mobile home lot shall be preceded by an individual overcurrent device not exceeding the rating of the equipment involved and by a suitable disconnecting means.

(2) All supply facilities for overcurrent devices and disconnecting means for mobile homes shall be within enclosures of weatherproof construction if installed outdoors.

(3) The disconnecting means shall be accessible.

72-110 Connection Facilities for Recreational Vehicles and Mobile Homes

(1) Where receptacles are installed on recreational vehicle lots, they shall be of the following types:

- (a) A 15 ampere, 125 volt, 2-pole, 3-wire type 5-15R receptacle; or
- (b) A 30 ampere, 125 volt, 2-pole, 3-wire ANSI configuration C73.13-1966 (R1972) receptacle; or
- (c) A 50 ampere, 125/250 volt, 3-pole, 4-wire type 14-50R receptacle.

(2) Each mobile home lot shall have provision for a permanent connection to the mobile unit except that for mobile homes having main overcurrent protection of 50 amperes, a 50 ampere 125/250 volt, 3-pole, 4-wire type 14-50R receptacle may be used if its use is lawful under Rule 2-030.

(3) Receptacles when mounted in other than a horizontal plane shall be oriented so that the U-ground slot is uppermost.

72-112 Power Supply Cords

(1) Power supply cords may only be used for the connection of recreational vehicles where the cords are not subject to severe physical abuse or extended periods of use.

(2) Power supply cords or cord sets may only be used for the connection of a mobile home if the lot is equipped with a 50 ampere, 3-pole, 4-wire type 14-50R receptacle and the connection is lawful under Rule 2-030.

SECTION 74—AIRPORT INSTALLATIONS

74-000 Scope

(1) This Section applies to the installation of runway, taxiway, and approach lighting and wiring.

(2) The requirements of this Section are supplementary to or amendatory of the general requirements of this Code.

74-002 Special Terminology. In this Section the following definitions apply:

- (a) "Ground counterpoise" means a grounding conductor installed over lighting cables for the purpose of interconnecting the system ground electrodes and providing lightning protection for the cables;
- (b) "Ground anchor" means a steel post set into the ground and supporting the lighting fixture.

74-004 Conductors Buried in Earth

(1) For aircraft and vehicle visual aid systems on public areas of airports, or which extend beyond airport property, the installation of buried cables shall be in accordance with the requirements of Rule 12-012.

(2) For installations covered by this Section of the Code, in areas not accessible to the public, single conductors and cable assemblies shall be of the type indicated in Table 19 as suitable for direct earth burial and shall be installed as follows:

- (a) In a trench not less 450 millimetres deep and with a layer of sand or screened earth extending at least 75 millimetres above and below the conductors, if in rocky or stoney ground;
- (b) Under runways, taxiways, aprons and roads, with a minimum mechanical protection of rigid conduit or a system of concrete encased underground raceways installed a minimum of 600 millimetres deep.
- (3) Series cables for 6.6 ampere systems directly buried in a trench shall have at least:
 - (a) 75 millimetres lateral separation between cables of different series circuits;
 - (b) 300 millimetres lateral separation from low-voltage and control cables;
 - (c) 75 millimetres vertical separation in cross-overs on the same system; and
 - (d) 300 millimetres vertical separation from low-voltage cables crossing over, with the low-voltage cables in the upper position.

74-006 Direct Burial Transformers

(1) Series isolating transformers shall be installed in the trench so that a minimum depth of 450 millimetres is provided for the points of entry of the primary cable.

(2) The secondary conductors shall be colour coded, one conductor being identified.

(3) The secondary connectors shall be polarized with the identified conductor connected to the larger pin or receptacle.

- (4) The identified conductor shall be grounded.

74-008 Series Lighting System. Series lighting systems shall be installed with a ground counterpoise.

74-010 Ground Counterpoise

(1) Ground counterpoise conductors shall be soft copper wire not smaller than No. 8 AWG, and shall be:

- (a) Solid, bare wire where installed in earth; or
- (b) Insulated and have a green finish if installed underground in raceways.

(2) The ground counterpoise when installed in earth shall be:

- (a) Placed 75 millimetres above all cable in a trench;
- (b) Run in a zig-zag pattern when outer cables are more than 150 millimetres apart, crossing cables at 300 millimetre intervals measured along the trench;
- (c) Placed 75 millimetres over non-metallic conduit containing groups of cables; and
- (d) Placed under any protective covering used.

(3) The counterpoise shall be connected to:

- (a) The ground anchor of each anchor-mounted light unit;
- (b) The grounded secondary conductor of each series isolating transformer;
- (c) The sheath of metal sheathed and the armour of armoured cables where used to supply light units;
- (d) The ground electrodes at all regulators, towers, lighting equipment that the counterpoise system serves; and
- (e) The ground electrode in each manhole through which the counterpoise conductor passes.

(4) Where counterpoise conductors of different systems come together or cross each other they shall be bonded together at those points.

SECTION 75—INSTALLATION OF LINES AND WIRING OF BUILDINGS

75-000 Scope

(1) This section applies to:

- (a) installations of primary and secondary lines except for lines owned by a supply authority; and
- (b) installation of electrical equipment in farm buildings and similar structures.

(2) This section is supplementary to, or amendatory of, the general requirements of this Code.

75-002 Definitions. In this Section:

- (a) "power conductor" means a conductor which conveys electrical power or energy and is not part of a communication circuit;
- (b) "distribution system" means the system by which electrical power or energy is distributed to the receiving equipment and includes components such as primary line, secondary line, services, distribution transformers, distribution equipment and other equipment of similar nature;
- (c) "CMS" means Central Metering System;
- (d) "authorized person" means a qualified person holding a certificate of qualification recognized by the Province of Ontario as a journeyman electrician and who by the nature of his or her duties or occupation is obliged to approach or handle electrical equipment;
- (e) "primary line" means a distribution system operating at more than 750 volts but not more than 50,000 volts phase to phase;
- (f) "secondary line" means a distribution system operating at 750 volts or less phase to phase;
- (g) "neutral supported cable" means two or three insulated conductors and a bare neutral;
- (h) "A.C.S.R." means aluminum conductor, steel reinforced;
- (i) "open wire bus" means a secondary line conductor with a weatherproof covering on the phase conductors and includes a bare neutral;
- (j) "classified" means poles graded according to strength whereby the minimum circumferential dimensions are so determined that all poles of the same class, regardless of length, will withstand the same horizontal force applied 0.6 metres from the top of the pole when supported 1.8 metres from the butt end in accordance with C.S.A. standards 015 series;
- (k) "A.C.A." means wood poles treated with ammoniacal copper arsenate;
- (l) "penta" means wood poles treated with pentachlorophenol.

75-004 General Requirements

(1) Every installation under this section shall be inspected in accordance with Section 2 of this Code.

(2) Where the work consists of the installation of a

service, the contractor shall consult the supply authority as to the layout of the service and the location of the transformer and meter, regarding compliance with applicable codes or standards under a rule or by-law of the supply authority concerning the layout of the service and the location of the transformer and meter.

(3) Where the work consists of the installation of conductors over or under a railway, the contractor shall submit to the inspector a plan of the crossing endorsed by the railway company with an approval of the work.

(4) Where a distribution system or part thereof is to be installed underground or underwater, the contractor shall submit to an inspector and obtain his approval of the plans and specifications with respect to the distribution system.

(5) Where approval is required from the supply authority by this rule, such approval shall be obtained prior to commencement of any work with respect to the installation.

(6) Installations where the amount of material processed and the total time per day that equipment operates is similar to that in a non-farm installation are not covered by the provisions of this section.

75-006 Disconnection of Live Supply

(1) Subject to Subrule (2), no person shall do any work on a distribution system until such distribution system has been disconnected from its source of supply and de-energized and the conductors relating to the distribution system have been properly grounded.

(2) No repairs or alterations shall be carried out on any live equipment except where complete disconnection of the equipment is not practicable and the work is carried out by an authorized person.

(3) Where work is being done on a distribution system, adequate precautions, such as locks on circuit breakers or switches, warning notices, sentries or other equally effective means shall be taken to prevent the distribution system or any part thereof from being electrically charged.

75-008 Clearances between Power Conductors and Communication Circuits

(1) Electrical equipment, power conductors, communication circuits and equipment shall be so constructed and maintained as to create no undue hazard to previously installed facilities.

(2) Where power conductors and communication circuits are carried on separate parallel pole-lines, such lines shall be spaced apart a distance such that one line cannot fall upon the other line in the event of a breaking of a pole.

(3) Where pole lines cross such that the conductors of one circuit may fall upon the conductors of another

circuit, the power conductors shall be installed such that the clearance between the upper conductors at maximum sag and the lower conductors is at least:

- (a) 1 metre in vertical distance above the conductors of the communication circuit where the line voltage is not more than 750 volts phase to phase; and
- (b) 2 metres above conductors of the communication circuit where the line voltage is more than 750 volts but not more than 50,000 volts phase to phase.

(4) Where power conductors and communication circuits are carried on the same pole, the power conductors shall be installed such that the clearance between the upper conductors at maximum sag and the lower conductor is at least:

- (a) 1 metre in vertical distance above the conductors of the communication circuits both at the pole and in the span, where the line voltage is not more than 750 volts phase to phase; and
- (b) 2 metres in vertical distance above the conductors of the communication circuits both at the pole and in the span, where the line voltage is more than 750 volts but not more than 50,000 volts phase to phase.

(5) Paragraph (a) of Subrules (3) and (4) shall not apply to a service span from a pole to a building.

75-010 Joint Use of Poles for Communications Circuits and Power Conductors. Power conductors and communication circuits shall not be carried on common poles unless the consent to the joint use of the poles, in writing, is obtained from the supply authority and the operators of the communication circuits.

75-012 Location of Conductors on Primary Lines

(1) Where primary line conductors cross other conductors of lower voltage, the conductors of the circuit having the highest voltage shall be installed above such other conductors of lower voltage and the vertical clearance between the upper conductor at maximum sag and the lower conductor shall be at least 2.0 m.

(2) The neutral conductor associated with primary line shall be located a minimum of 2.0 m below the phase conductors and a minimum of 150mm below the transformer.

75-014 Clearances in Service Span. Where the voltage of power conductors is not more than 750 volts, the distance between the power conductors and a communication drop-wire in the service span from a pole to a building shall be not less than 300 millimetres.

75-016 Poles

(1) All secondary line, primary line and transformer poles shall be new, classified, and:

- (i) Butt-treated western cedar;
- (ii) Pressure treated pine; or
- (iii) Other acceptable material and type.

(2) The following pole "Species — Treatment" combinations are acceptable for new installations:

- (i) Western Cedar — A.C.A.;
- (ii) Red Pine — Penta;
- (iii) Scotch Pine — Penta;
- (iv) Jack Pine — Penta;
- (v) Southern Yellow Pine — Penta;
- (vi) Western Cedar — Butt Treated Creosote.

(3)(a) A transformer pole shall be a minimum of class 5 and in accordance with the requirements of Table 100.

(b) A single phase primary line pole or a secondary line pole shall be a minimum of class 7.

(c) A three phase primary line pole shall be a minimum of class 5.

(4) All poles shall have:

- (a) Butt marking showing:
 - (i) Type of wood or material,
 - (ii) Supplier's code or trademark, and
 - (iii) Class and length;

(b) Side marking located 1.80 ± 0.05 m above the groundline.

(c) Side marking which shall include:

- (i) Treatment plant,
- (ii) Class and length,
- (iii) Type of wood,
- (iv) Last 2 numerals of year of treatment, and
- (v) Preservation code letter.

(5) Notwithstanding Subrules (1) and (4), Eastern Cedar poles may be used for secondary line construction on the load side of the service entrance equipment. The minimum acceptable pole top diameter shall be

125 millimetres and minimum acceptable circumference from the butt end shall be in accordance with Table 101.

(6) Notwithstanding Subrule (1), pressure treated pine and butt treated western cedar poles for new lines may be re-used provided that the poles are classified, not more than 10 years old and have no visible signs of damage and that their re-use is lawful under Rule 2-030.

(7) Notwithstanding Subrule (1) of this rule, a used pole may be used on secondary lines only after its condition has been checked by an inspector and before the pole is set in the ground.

75-018 Length of Poles. Subject to Rule 75-026:

(1) Every pole in primary line on which a transformer is mounted shall be at least 12.5 metres long.

(2) Every pole in a primary line other than a transformer pole shall be at least 11.0 metres long.

(3) Every pole in a secondary line shall be at least 9.5 metres long.

(4) Notwithstanding Subrules (1), (2) and (3), in case of rock pole mounts approved in accordance with Rule 75-020 (5) (b) the above pole lengths can be reduced by 1.5 metres.

75-020 Setting of Poles

(1) Where a pole having a length shown in column 1 of Table 102 is set in earth, the butt end of the pole shall be buried to a depth at least that prescribed in column 2 of the Table.

(2) Where a pole having a length shown in column 1 of Table 102 is set in solid rock, the butt end of the pole shall be buried to a depth at least that shown in column 2 of the Table less 300 millimetres.

(3) Where poles are installed on slopes or hill-sides, the depth of the hole shall be measured from the lower side of the opening.

(4) Corner and dead-end poles shall be raked towards the anchor in accordance with Table 109.

(5) Where it is impossible to employ the above methods:

(a) Poles shall be cribbed as in specification 27; or

(b) Pole mounts are acceptable on rock subject to the approval of the supply authority.

75-022 Pole Spans and Framing

(1) Poles used in secondary lines shall be placed not more than 38 metres apart.

(2) Subject to Subrule (3), poles used in primary lines shall be placed not more than 90 metres apart.

(3) Poles used in primary lines shall be placed as per following specifications:

Specification—28—Primary, 1 phase, 16 kilovolts max., vertical.

Specification—29—Primary, 3 phase, 50 kilovolts max., crossarm.

Specification—30—Primary, 3 phase, 50 kilovolts max., vertical dead end and vertical corner.

Specification—31—Primary, 3 phase, 50 kilovolts max., crossarm dead end.

Specification—31A—Primary, 3 phase, 50 kilovolt max., deadend armless,

Specification—32—Primary, 3 phase, 50 kilovolts max., armless (improved appearance).

75-024 Span with Secondary Service Line Attached to Building

(1) Subject to Subrule (2), the span from the point where the secondary service line is attached to a building to the nearest pole shall not be longer than:

(a) 40 metres for size No. 3/0 AWG and smaller of neutral supported cables types NS-1 and NSF-2; and

(b) 30 metres for size No. 4/0 AWG of neutral supported cables types NS-1 and NSF-2.

(2) The span from the point where the secondary overhead service line is attached to a mobile home or similar structure to the nearest pole or other point of attachment shall not be longer than 10 metres.

75-026 Primary and Secondary Lines Clearances

(1) The poles which support the phase conductors of a primary line shall be so located and of such height as to afford at a temperature of 16 degrees Celcius a clearance of 7 metres measured vertically between the conductors and the ground.

(2) The primary line neutral shall be considered a secondary conductor and shall have the same minimum vertical clearance as specified in Subrule (3).

(3) Subject to Subrule (5), the poles which support the conductors of a secondary line shall be so located and of such height as to afford at a temperature of 16 degrees Celcius a clearance of 6 metres measured vertically between the conductors and the ground.

(4) Where a consumer desires to install the conductors of a primary or secondary line across a public road, the crossing shall not be made without a written permission from the supply authority and from the

authority having jurisdiction over the road and having the minimum clearance as specified in Subrule (1).

(5) The point of attachment of supply conductors shall be not less than 4.5 metres nor more than 9 metres above sidewalk or grade level and shall be so located and of such height as to afford at a temperature of sixteen degrees Celsius a clearance measured vertically between the conductors and the ground of at least:

- (a) 4.5 metres on properties accessible to pedestrians and passenger vehicles only; or
- (b) 6 metres on properties accessible to commercial and farm vehicles.

75-028 Clearances of Conductors from Buildings

(1) An overhead secondary line conductors shall be kept at least 2 metres measured horizontally or 3 metres measured vertically from all buildings except where necessary to effect a service entrance.

(2) An overhead primary line conductor shall be kept at least 5 metres measured horizontally from a building.

(3) Primary line conductors shall not be installed over buildings unless the installation is lawful under Rule 2-030, and work shall not begin until the plans and specifications for the work are approved in accordance with Rule 2-010.

(4) No building, mobile home or structure shall be placed or constructed within 5 metres measured horizontally from the nearest conductor of an overhead primary line.

75-030 Clearances for Other Structures

(1) Notwithstanding Rule 36-110, conductors of a primary line shall not be installed closer than 12 metres measured horizontally from silos, wells, windmills, antennae, flagpoles and other like structures which increase the possibility of accidental contact by persons or things with such conductors.

(2) Conductors of a secondary line shall not be installed closer than 2 metres horizontally from structures.

(3) The poles and equipment associated with a primary or secondary line shall be located and suitably protected so as to avoid the possibility of damage from contact with vehicles.

75-032 Anchors and Guys

(1) Poles at dead-ends or angles shall be guyed as follows:

- (a) Where a plate anchor is used then in the manner prescribed by Specification 1;

(b) Where a log anchor is used then in the manner prescribed by Specification 2; or

(c) Where an expansion anchor is used then in the manner prescribed by Specification 3.

(2) (a) Where anchors are installed in solid rock the anchors shall be installed in accordance with either item 1 or 2 of Specification 4.

(b) Where anchors are installed in shale or limestone the anchors shall be installed in accordance with item 2 of Specification 4.

(3) Power driven screw anchors shall be installed as per manufacturer's specifications.

(4) All backfill associated with installation of anchors shall be well tamped.

75-034 Guy Wires

(1) Guy wires shall:

- (a) Be of 7-strand steel;
- (b) Have a diameter of at least 8 millimetres; and
- (c) Be galvanized.

75-036 Strain Insulator on Pole Guys

(1) Every guy shall have a strain insulator installed in the manner prescribed in Specification 5. Preformed guy grips suitable for the purpose may be used in lieu of 3 bolt clamps.

(2) A second strain insulator shall be installed at a point below the point of possible contact of the conductor and guy wire where:

- (a) The guyed pole carries a transformer or a fused switch; and
- (b) The breaking of a guy wire could cause a part of the guy wire below the strain insulator to fall against a conductor carried by the pole.

(3) All guy wires shall be protected by a suitable guard.

75-038 Anchoring for Change of Line Direction

(1) Arrangement of guys and anchoring for change of line direction shall be in accordance with specification 38.

75-040 Span Guy Construction

(1) Where a span guy must be installed, it shall be constructed in the manner prescribed in Specification 6.

(2) Where the span between the guyed pole and stub pole crosses over or under conductors operating at a

potential of more than 150 volts to ground, a second strain insulator shall be installed in the span at a point between the power conductors and the guyed pole and not less than 2.5 metres from the stub pole.

75-042 Guys

(1) A guy wire shall be attached to the pole with an approved fitting shown in item 1 of Specification 22 in the manner prescribed in Specification 5 and in such a way that there is no contact between the guy wire fitting or its mounting bolt and any ground wire on the pole. Acceptable preformed guy grips may be used in place of the approved fitting mentioned above.

(2) The back of an insulator through bolt shall not be used as an attachment point for guys.

(3) Where the distance from the upper support clamp on the service mast to the point of attachment exceeds 1.5 metres, or where the span exceeds 30 metres, or the tension is known to exceed 600 pounds, the mast shall be guyed in accordance with Specification 26.

75-044 Anchor Distance from Pole. The distance of an anchor from its pole shall be at least one-third the height of the pole above ground.

75-046 Hardware. All hardware shall be galvanized.

75-048 Cross-arms

(1) Cross arms, if made of wood shall be:

- (i) Douglas Fir; or
Western Larch; or
Western Hemlock; or
Yellow Cypress; or
Jack Pine; or
Lodgepole Pine;

(ii) At least 120 millimetres wide and 95 millimetres thick. For detail on crossarm dimensions see Specification-33, Item 2.

(2) Steel cross arms shall:

- (a) have dimensions in accordance with Specification 33, Item 1; and
- (b) be connected to a ground electrode with a No. 1/0 AWG stranded bare copper conductor.

75-050 Cross arm Pins

(1) The pins shall have standard steel 15.88 millimetres shank complete with special lockwasher suitable for use on wood cross arm and shall be:

- (a) 286 millimetres long and have 25 millimetres lead threads for the insulator on primary lines not more than 8,000 volts to ground and for

ungrounded primary lines not more than 13,800 volts;

- (b) 356 millimetres long and have 35 millimetres lead threads for the insulator on primary lines more than 8,000 volts to ground and for ungrounded primary lines more than 13,800 volts.

75-052 Braces for Cross arms on Primary Lines. All wood cross arms shall have two braces, each being 864 millimetres long. One piece 'V' shaped cross arm braces are permitted.

75-054 Secondary Racks

(1) Racks shall be used for secondary service conductors as follows:

- (a) When neutral supported cables are attached, one wire rack shall be used as shown on Specification 14 or 15;
- (b) When several conductors are used, see Specification 14 or 15 for the type of rack required, and
 - (i) Where there is no change of direction in a line, the rack shall be erected as shown in item 1 of Specification 13;
 - (ii) Where there is a change of direction in a line, the rack shall be erected as shown in item 2 of Specification 13;
 - (iii) At a dead-end in a line, the rack shall be erected as shown in item 3 of Specification 13.

(2) Neutral supported cable shall be installed in accordance with Specification 12.

75-056 Insulators. Insulators shall be selected in accordance with Table 108 and Specifications 35, 36 or 37.

75-058 Conductors-Overhead

- (1) (a) Secondary service conductors, for a current carrying capacity up to 200 amperes shall be neutral supported cable and each conductor thereof shall have ampacities in accordance with Table 36.
- (b) For a current carrying capacity over 200 amperes open wire bus with a bare neutral conductor properly spaced may be used.

(2) Primary line conductors shall be bare and not less than No. 2 A.W.G. A.C.S.R.

75-060 Sag Between Poles. Open wire bus, neutral supported cable and A.C.S.R. shall be installed so that the sag of the conductors between poles is determined by using Tables 103, 104, 105 or 106 appropriate to the

size and type of conductor being installed and with respect to applicable span and temperature.

75-062 Sag Between Pole and Building. Open wire bus, neutral supported cable and A.C.S.R. shall be installed so that the sag of the conductors between a pole and a building is determined by using Tables 103, 104, 105 and 106 appropriate to the size and type of conductor being installed and with respect to applicable span and temperature.

75-064 Conductor Ties

(1) Primary line conductors shall be tied to pin-type insulators by means of No. 4 AWG soft drawn bare aluminum tie wire:

- (a) In the manner prescribed by specification 9 where there is no change in direction of the line at the insulator;
- (b) In the manner prescribed by Specification 10 where there is a change in direction of the line at the insulator.

(2) Secondary line conductors with weatherproof covering, shall be tied to secondary-rack spool-type insulators in the manner prescribed by Specification 11.

(3) Neutral conductors on neutral spool bolt insulators shall be tied with long spool-ties in a manner prescribed by Specification 8.

75-066 Compression Connections. Compression connectors are required for all overhead current carrying connections.

75-068 Attachment of Secondary Line Conductors.

(1) Secondary service conductors shall terminate on a dead-end of a type shown in either Specification 14 or 15:

- (a) Attached to a pole in accordance with either Specification 12 or 13; or
- (b) Attached to the timber framing of a building by two machine bolts of at least 12.5 millimetres diameter backed by washers unless a one-wire rack is used such as shown in item 1 of Specification 15.

(2) Where it is necessary to install an approved service mast to meet the requirements of Rule 6-114 the mast shall be attached to the building as shown in Specification 26 and guyed, if necessary, in accordance with the Note on Specification 26.

75-070 Service Box Installation

(1) Where a service box is installed on a pole which supports the conductors of a secondary service only,

the midpoint of the meter shall be located as shown in Specification 16.

(2) Where a service box is installed on a transformer pole, no equipment other than that shown in Specification 17 shall be placed on the pole, except that one temporary service may be attached in addition to the permanent service.

(3) Service boxes shall not be installed on poles located on a public road.

(4) The following requirements shall apply to the Central Metering System (CMS):

(a) A standard pole-mounted distribution transformer without a secondary breaker or pole-mounted switch shall be used to supply multi-building installations;

(b) The method of entry of conductors into a building shall be in accordance with Rules 6-206 and 6-302;

(c) Each building shall have a main service box at point of entry;

(d) The service equipment shall be bonded to the neutral;

(e) A ground electrode shall be used at each service box in accordance with Rule 75-084;

(f) (i) New overhead yard wiring shall be neutral supported cable with a minimum of No. 2 AWG aluminum, and when in parallel shall comply with Rule 12-108;

(ii) New overhead yard wiring with current carrying capacity over 200 amperes, open wire bus with a bare neutral conductor properly spaced may be used.

(g) The ampacity of the overhead or underground conductors feeding one or more buildings shall be based on:

(i) 100 per cent of the rating of the largest service box; and

(ii) 75 per cent of the sum of the ratings of all other service boxes supplied.

(h) All poles carrying primary or secondary lines shall have the following warning sign; "Danger—Keep Off; If work on this pole or near wires is necessary, call the Hydro Office";

(i) Transformer pole hardware and metering equipment shall be in accordance with Specification 19;

(j) If metering is located on other than a transformer pole the meter socket shall be connected

to the ground electrode and the system neutral in accordance with Specification 18;

(k) Pole top switches may be installed to the following requirements:

(i) The switch shall be approved for the purpose;

(ii) The minimum ampacity of the main contacts of the switch shall be 100% of the largest service box plus 75% of the sum of the ratings of all other service boxes supplied;

(iii) The minimum clearances on the pole shall be those shown on Specification 20;

(iv) Underground services shall be in accordance with the requirements of Rule 6-300;

(l) All equipment mounted on a pole shall be mounted on the same $\frac{1}{3}$ continuous pole circumference leaving the remaining $\frac{2}{3}$ of the continuous pole circumference clear for climbing purposes.

(m) C.M.S. type service shall not have more than four subdivisions of the service extending from one pole.

75-072 Service Attachment to Poles. No equipment shall be attached to the poles of a supply authority without express permission of the supply authority.

75-074 Service Box Installation on a Transformer Pole

(1) Where a service box is installed on a transformer pole:

(a) The ground electrode shall be installed at the pole by the supply authority;

(b) The consumer shall provide a grounding conductor for the non-current-carrying metal parts of the service box; and

(c) The supply authority shall connect the grounding conductor to the ground wire on the pole.

(2) All non-current-carrying metal parts of the service box shall be grounded.

75-076 Location of Meters. Meters shall be located in accordance with Subrule 6-408(1).

75-078 Conductors at Service Switch. Conductors connected to the load side of a service switch shall not be installed in a conduit with conductors connected to the line side of the service switch.

75-080 Tree Trimming

(1) The owner of a private line shall provide complete protection to the line from trees and other forms of woody growth in compliance with a code or standard under a rule or by-law of the supply authority concerning tree trimming.

(2) Where there is no applicable code or standard under a rule or by-law of the supply authority concerning tree trimming, all trees and woody growth adjacent to a line shall be trimmed so that minimum clearance to the nearest conductor horizontally and vertically at a maximum sag shall be:

(a) 1 metre for secondary lines;

(b) 4 metres for primary lines.

75-082 Grounding Conductors

(1) The grounding conductor shall be in accordance with Section 10.

(2) The grounding conductor located above ground shall be protected against mechanical injury by means of wood moulding, conduit, or similar approved methods.

(3) Metal guards or metal conduit shall not be used as protection for the grounding conductor in locations accessible to livestock.

75-084 Ground Electrodes

(1) Each ground electrode shall consist of one or more standard ground rods.

(2) There shall be not less than two ground rods installed for each consumer's installation.

(3) Ground rods, if of iron or steel, shall have a minimum diameter of 15.88 millimetres.

(4) Ground rods shall be provided with solderless clamps of an approved type.

(5) Where a ground electrode consists of two or more ground rods, the ground rods shall be installed not less than 3 metres apart.

(6) Where ground rods are installed outside a building, they shall:

(a) Be at least 3 metres long; and

(b) Be driven to a depth such that the top of the ground rods are a minimum of 250 millimetres below ground level.

(7) Where ground rods are installed in a basement:

(a) They shall extend not less than 1.6 metres into the ground; and

- (b) Ground clamps which are protected against mechanical injury may be located above the surface of the floor through which the rods are driven.

(8) All ground electrodes shall be connected to the system neutral to minimize voltage gradients.

75-086 Location of Underground Grounding Conductor

(1) The grounding conductor shall be run underground to the ground electrode and shall be:

- (a) Buried in the earth to a depth not less than 250 millimetres below the ground level;
- (b) Not be located within 3 metres of a doorway; and
- (c) Not be located in an area normally frequented by livestock.

75-088 Grounding of Service Equipment on Transformer Poles

(1) Where the service equipment is installed on a transformer pole:

- (a) The neutral conductor of the consumer's service shall not be grounded by any person other than an employee of the supply authority;
 - (b) (i) The neutral conductor shall be brought into the service box;
 - (ii) The neutral conductor shall be installed with both the line and the load conductors on the service pole, and notwithstanding the provisions of Rule 4-020, the neutral conductor may be bare.
 - (c) The contractor shall bond the non-current-carrying metal parts of the service equipment to a grounding conductor sized in accordance with Rule 10-812 and at least 500 millimetres of the grounding conductor shall extend outside the weatherproof enclosure.
- (2) Where the transformer is owned by the supply authority, an installation is acceptable provided the supply authority attaches the grounding conductor to the supply authority's ground wire by means of a solderless connector.
- (3) Where the transformer is privately owned, the owner shall supply and install all grounding in accordance with Section 10.

75-090 Clearance-Lightning Conductors

(1) Requirements for the spacing or bonding of electrical and lightning rod systems are given in Rule 10-706 as follows: Where practicable, a clearance of at least 2 metres shall be provided between lightning

rod conductors and electrical conductors and equipment but, where this separation is not possible, the ground electrodes for the two systems shall be connected together, at or below ground level, with a copper conductor of a size not less than that of the grounding conductor for the electrical system and in no case shall the bonding conductor be smaller than No. 6 AWG copper.

(2) Metal enclosures of circuit conductors shall where practicable be kept at least 2 metres from the lightning conductors and where this is not practicable shall be bonded to the lightning conductors at the maximum elevation of the wiring system.

75-092 Service Equipment

(1) Service boxes or other approved service equipment shall be installed in an acceptable location and shall be:

- (a) As close as practicable to the point where the service conductors enter the building.
- (b) Readily accessible, or have the means of operating them readily accessible;
- (c) Not located in coal bins, clothes closets, bathrooms, stairways, high ambient rooms, dangerous or hazardous locations, nor in any similar undesirable places; and
- (d) If placed on a pole;
 - (i) Weatherproof, and
 - (ii) Protected from mechanical injury if less than 2 metres above ground; and
- (e) If placed on outside of a building:
 - (i) weatherproof or enclosed in a weatherproof enclosure, and
 - (ii) protected from mechanical injury if less than 2 metres above ground.

(2) The non-current-carrying metal parts of the service and neutral conductor of the consumer's service shall be grounded in accordance with Section 10.

75-094 Pole Mounted Lights

(1) Pole mounted lights shall not be installed on a transformer pole.

(2) Where pole mounted lights are installed on poles carrying the conductors of a primary line, the lighting fixture shall be at least 3 metres below the primary conductors.

(3) Where pole mounted lights are controlled from more than one point by switches, each switch shall be so wired and connected that the identified (neutral)

conductor runs directly to the light or lights controlled by it.

(4) The identified conductor of the circuit supplying the pole mounted light may be connected to the neutral conductor of a feeder or subfeeder.

(5) Each lighting circuit shall have adequate over-current protection. A weatherproof in-line fuseholder assembly is acceptable for this purpose.

(6) All non-current-carrying metal parts of a lighting unit shall be grounded in accordance with Section 10.

75-096 Wiring in Buildings

(1) Where a service feeder or subfeeder enters a building, it shall be installed in accordance with Rule 6-302 and a service box shall be installed at the point of entrance.

(2) Where a service box supplies more than two branch circuits, overcurrent devices shall be installed in an enclosure on the load side of the main switch or circuit breaker.

(3) The wiring in barns, stables and out-buildings shall be:

- (a) copper; and
- (b) Enclosed in PVC Rigid Conduit; or
- (c) Non-metallic sheathed cable of a NMW type; or
- (d) Any other method in accordance with Section 22.

(4) The wiring in a residence may be:

- (a) Nonmetallic sheathed cable; or
- (b) Any other approved method.

(5) Metallic water supply systems and metallic waste water piping systems shall be bonded in accordance with Rule 10-406.

(6) Where nonmetallic sheathed cable is run on a wall or the framework of a barn, out-building or residence, or in any other place where it is likely to be damaged by cattle or by the impact with moving objects, it shall be protected by PVC conduit.

(7) Nonmetallic sheathed cables must not be run along the top of structural members, but may be securely fastened to the sides and bottoms of structural members.

(8) Nonmetallic sheathed cables must have mechanical protection when crossing over structural members.

(9) Nonmetallic sheathed cables must have mechanical protection where they enter floors.

(10) Where nonmetallic sheathed cable must enter walls or ceilings or concealed areas over beams, a PVC conduit shall be used to protect the nonmetallic sheathed cable where subject to damage by rodents.

(11)(a) Livestock waterers, wire mesh, grates, metallic water pipes, stanchions, water bowls, vacuum lines, grain feeders, gates, support posts and other metals shall be bonded together by a separate stranded copper conductor not smaller than No. 6 A.W.G.

(b) The metallic equipment bonded in Subrule (a) shall be grounded and connected to the system neutral ground at the distribution panel by a separate single stranded copper conductor not smaller than No. 6 A.W.G.

(12) In milking parlors concrete floors shall have a 6 inches by 6 inches by 9 gauge wire mesh, and bonding and grounding shall be in accordance with Subrule (11).

75-098 Wiring Devices—Barns, Stables and Out-Buildings

(1) In barns, stables and out-buildings, all lamp outlets shall be controlled by means of wall switches.

- (a) An outlet, switch, receptacle or other wiring device shall be:
 - (i) Contained in a box made of insulating material having a cover of insulating material; or
 - (ii) An approved self-contained outlet, switch receptacle or other wiring device, made of insulating material.

75-100 Lighting Fixtures

(1) Where dust or chaff is likely to collect on lamps they shall be:

- (a) Mounted vertically; and
- (b) In totally enclosed gasketed type globes.

(2) Keyless weatherproof pigtail lampholders shall be installed at lamp outlets in barns, stables and out-buildings, subject to Subrules (3), (4) and (5).

(3) In milk houses and other areas having controlled environment, low temperature ballasted fluorescent or standard incandescent lighting fixtures may be used.

(4) Where fixtures are subject to mechanical damage the fixtures shall be:

- (a) A weatherproof pigtail type with gasketed type globe; or

(b) Any other approved type installed at an elevation of at least 3 metres.

(5) High intensity discharge lighting may be used for yard lighting and high bay areas.

75-102 Silo Unloaders

(1) General:

- (a) Silo unloaders shall be approved;
- (b) All boxes and fittings installed outdoors or in silos shall be weatherproof.

(2) Motors:

- (a) Silo motors shall be either totally enclosed or fitted with suitable screens to prevent entrance of foreign objects into the ventilating passages of the motor;
- (b) The motors are required to have individual overload protection in accordance with Rule 28-300;
- (c) The type of overload protection complying with Rule 28-302 shall be a separate overload device responsive to motor current rated or set in accordance with Table 26. An integral thermal protective device specifically approved for use with the motor which it protects is a permitted alternative providing that the manual reset button is easily accessible. Automatic resetting overload devices are not permitted.
- (d) The motors shall be controlled by means of a magnetic motor controller, with a control station in the silo, capable of preventing the motors being started from any other location. A jog pushbutton is required at the control station in the silo unless a local or remote operation selector switch is available at the controller then, a control station on a cord set, that may be carried into the silo by the operator, is permitted as a controlling means, provided that start pushbutton performs a jog function only;
- (e) A suitable disconnecting means shall be installed within sight of the controller in accordance with Rule 28-604.

(3) Wiring Method:

- (a) Outside Wiring. The wiring from a building to a silo shall be installed either underground, in accordance with Rule 12-012, or overhead in accordance with Rule 75-070;
- (b) Silo Riser. The riser conductors on the exterior wall of the silo shall be enclosed in rigid steel or PVC conduit, ACL, M.I., A/S or NMWU or flexible cord mechanically protected as required. Flexible cord assemblies noted in Paragraph (c) may be used provided

that the cord assembly is suitably supported and protected and is provided with a take-up reel, or equivalent, to prevent slack cable problems. The riser conductors shall terminate in a weatherproof enclosure or box wherever necessary;

(c) Power Supply Cords. The cord assembly shall consist of:

- (i) A cable for hard usage outdoors in wet locations as listed in Table 11; or
- (ii) Type SJO or SO;

(d) Support of Cord Assembly. The cord assembly shall be supported by suitable strain relief clamps.

75-104 Standby Generators

(1) Standby generators shall not be connected to a wiring system except through a double-throw switch which will prevent feedback on the supply authority's system.

(2) The wiring method and grounding of permanently installed standby generators shall be in accordance with Sections 10 and 12.

(3) In addition to requirements of Subrule (1), portable standby generators shall meet the following requirements:

- (a) Where the portable standby generator neutral is isolated from ground, the cable assembly shall contain a separate green grounding conductor in addition to the identified neutral conductor;
- (b) For portable standby generators rated 60 amperes and less the conductors shall terminate in an approved receptacle as listed in Diagrams 1 and 2.
- (c) For portable standby generators rated more than 60 amperes, the conductors shall terminate in a receptacle that provides simultaneous disconnect of all ungrounded conductors and incorporates a rejection feature prohibiting the interconnection of ungrounded and neutral and/or grounding conductors;
- (d) Where a double throw transfer is mounted at a service entrance, the transfer switch shall be located on the load side of the service entrance switch;
- (e) Pole top transfer switches used in conjunction with Central Metering Systems shall be installed in accordance with Specification 20;
- (f) The conductors used in conjunction with a portable standby generator and which are to be installed on the pole shall be enclosed in rigid conduit and terminate at the generator connec-

tion point in a weatherproof box complete with threaded hub;

- (g) At least one ground rod shall be installed at every location where the generator may be connected;
- (h) Where a receptacle for a standby generator is not located on the same pole as the corresponding transfer switch, the point of attachment on the pole bearing the switch for the conductors from the receptacle shall be directly below the switch.

75-106 Underground Cables. For the purpose of this rule, underground cable shall mean cable which is the whole or a part of either a primary or secondary line.

(1) General:

- (a) An underground cable shall be of a type approved for this purpose;
- (b) Where an underground cable trench is installed in rocky or stony ground the cables shall be laid in a bed of sand extending 75 millimetres below and 75 millimetres above them;
- (c) Underground cables shall be laid parallel to each other;
- (d) Where mechanical protection for underground cables in the form of cable brick, treated planks or other acceptable materials are employed, it shall be wide enough to extend at least 50 millimetres beyond the cables on each side. Treated planks shall not be less than 38 millimetres in thickness. Planks treated with creosote solutions are not permitted and shall not be used;
- (e) Where underground cables pass under roadways, or railways, the underground cable shall be installed with mechanical protection in the form of non-metallic directly buried duct, rigid conduit or duct embedded in concrete;
- (f) (i) Subject to Subparagraph (ii) of this Subrule where underground cables are installed in the same trench as other services, the underground cable shall be installed below the level of other services and shall have mechanical protection interposed between them;
- (ii) Where underground cables are installed at the same level as other underground services, the underground cables shall be kept at a distance of at least 1 metre measured horizontally;
- (g) Where underground cables emerge they shall be run in rigid conduit or other approved raceway or otherwise suitably protected;

(h) Where the underground cable extends up a pole:

- (i) the raceway shall extend up the pole to the point where it is necessary for the conductors to diverge; and
- (ii) be equipped with a rain-tight service-head.

- (i) Where underground cables must cross other underground services the underground cables shall be installed in suitable duct or mechanical protection shall be interposed at the point of crossing.

(2) Primary Line Cables:

Underground primary line and secondary line cable shall be installed in accordance with Rule 12-072.

75-108 Submarine Power Cable. Submarine power cables shall be manufactured to either I.C.E.A. Standard S-66-524, or Ontario Hydro Standard M355, or such other standards as may be approved.

75-110 Hazardous Locations

(1) For the purpose of this Rule, there are two categories of grain dust producing locations as follows:

- (a) Farms—where the product is being produced only for use on the particular farm;
- (b) Commercial—where the product is being produced for resale or is a custom preparation for others or where the amount of material handled is large as compared to what might be processed on the farm.

(2) The requirements of Table 107 shall be applied to determine the wiring method in either of the locations listed in Subrule (1) hereof.

75-112 Fuel Dispensing. Gasoline and propane dispensing equipment shall be installed in accordance with Sections 18 and 20.

75-114 Submersible Pumps

(1) Submersible pumps shall be installed in accordance with manufacturer's instructions and Rules 26-950 to 26-956.

(2) Submersible pumps shall be grounded in accordance with Section 10.

SECTION 76—TEMPORARY WIRING

76-000 Scope

(1) This Section of the Code covers temporary wiring installations for buildings or projects under construction or demolition and experimental or testing facilities of a temporary nature.

(2) The requirements of this Section are supplementary to, or amendatory of, the general requirements of the Code.

76-002 Inspection and Reinspection. All installations and equipment shall be subject to inspection or reinspection at any time.

76-004 Conductors

(1) Conductors shall be of a type in accordance with Section 12 or be flexible cord or power supply cable of the outdoor type suitable for extra-hard usage as indicated in Table 11.

(2) Conductors shall be insulated except as permitted by Rules 6-308, 10-802 and 10-806.

(3) Service conductors shall be installed in accordance with Sections 6, 10 and 36.

(4) Overhead conductors shall be aerially supported in an acceptable manner on poles or other acceptable means with the spacing of supports not to exceed the maximum span length allowable for the type of conductors used.

76-006 Grounding. All grounding shall be in accordance with Section 10.

76-008 Service Entrance Equipment. Service entrance equipment shall be in a temporary building adjacent to the construction or demolition site but if such a building is not available, the equipment may be mounted on a pole structure if it is:

- (a) Accessible to authorized persons only;
- (b) Capable of being locked;
- (c) Protected against weather and mechanical damage; and
- (d) Not over 200 amperes capacity.

76-010 Distribution Centres

(1) Distribution centres shall have a sufficient number of branch circuits and be of adequate capacity to serve the connected load without overloading any branch circuits and without violating the requirements of Section 14.

(2) Distribution centres shall be installed in a weatherproof building or be of weatherproof construction.

(3) Distribution centres including portable ones shall be mounted in an upright position on acceptable supporting structures and must be acceptable for the purpose.

76-012 Feeders

(1) Feeders supplying distribution centres shall be installed in armoured cable or the equivalent.

(2) Notwithstanding Subrule (1), feeders to portable distribution centres may be flexible cord or power supply cable of the outdoor type suitable

for extra-hard usage as indicated in Table 11 and containing a grounding conductor.

(3) Feeders shall be protected at all times from mechanical damage and protected by suitable overcurrent protective devices and controlled by suitable disconnecting means.

76-014 Branch Circuits

(1) Non-metallic sheathed cable is permitted to be used for branch circuits providing:

- (a) Type NMWU is used;
- (b) It is installed in accordance with Section 12; and
- (c) It is not smaller than No. 12 AWG when of copper and not smaller than No. 10 AWG when of aluminum.

(2) Lighting branch circuits shall be kept entirely separate from power branch circuits.

(3) The installation and type of luminaires or lamp-holders shall comply with Section 30.

(4) Each lighting branch circuit shall be protected by a circuit breaker set in accordance with Rule 30-104 and the connected load shall not exceed 80 per cent of the circuit breaker rating.

(5) Power branch circuits shall be provided as follows:

- (a) Separate branch circuits sized and protected by circuit breakers in accordance with Section 28 shall be provided for motor loads exceeding that encountered from general use hand held tools;
- (b) Separate branch circuits for known loads such as electric heating shall be protected by circuit breakers set at a value so that the load connected does not exceed 80 per cent of the rating of the breaker; and
- (c) General use receptacle power branch circuits shall be protected by a circuit breaker set at a value not exceeding the lowest rating of any receptacle connected on the branch circuit.

76-016 Interconnections. Temporary installations shall be constructed as separate installations and at no time shall they be interconnected with any of the circuits of the permanent installations unless the interconnection is lawful under Rule 2-030.

SECTION 78 — MARINAS, YACHT CLUBS, MARINE WHARVES, STRUCTURES AND FISHING HARBOURS

78-000 Scope. This Section is supplementary to, and amendatory of the general Sections of this Code and applies to installations as follows:

- (a) Marinas, yacht clubs and similar establishments, including fixed or floating piers, which are used for the construction, repair, storage, launching, berthing and fueling of small craft; and
- (b) Facilities for marine wharves, structures, and fishing harbours.

Marinas and Yacht Clubs

78-050—General. Rules 78-052 to 78-064 inclusive, apply to electrical installations in marinas and yacht clubs.

78-052—Receptacles

(1) Where receptacles are installed on fixed or floating piers, docks, or wharves, and intended to supply shore power for boats, they shall be:

- (a) 15 amperes, single or duplex, locking or non-locking type conforming to Diagram 1 or 2; or
- (b) 20 amperes or more, single, locking type conforming to Diagram 2.

(2) Receptacles which supply shore power other than for boats may be of the locking or non-locking type conforming to either Diagram 1 or 2.

(3) Receptacles shall be made of corrosion-resistant material.

(4) Receptacles shall be located above the permanent or maximum normal water level so that they cannot become immersed in water and shall be protected from splashing.

(5) Fifteen and 20 ampere, single phase, 125 volt receptacles other than those supplying shore power to boats shall be protected by ground fault circuit interrupters of the Class A type.

(6) Receptacles of configuration 5-15R (Diagram 1), intended to supply shore power to boats and installed outdoors or on fixed or floating piers, docks, or wharves, shall be protected by a ground fault circuit interrupter of the Class A type.

78-054—Branch Circuits. Each receptacle that supplies shore power to boats shall be supplied by an individual branch circuit that supplies no other equipment.

78-056—Feeders and Services

(1) The load for each feeder and service supplying receptacles installed on fixed or floating piers, docks or wharves, and intended to supply shore power to boats shall be calculated on the basis of the ampere rating of the receptacles and applying the following demand factors:

- (a) 100 per cent of the sum of the first four receptacles having the highest ampere ratings; plus
- (b) 65 per cent of the sum of the ampere ratings of the next four receptacles having the same or next smaller ratings to those specified in Paragraph (a); plus
- (c) 50 per cent of the sum of the ampere ratings of the next five receptacles having the same or next smaller ratings to those specified in Paragraph (b); plus
- (d) 25 per cent of the sum of the ampere ratings of the next sixteen receptacles having the same or next smaller ratings to those specified in Paragraph (c); plus
- (e) 20 per cent of the sum of the ampere ratings of the next twenty receptacles having the same or next smaller ratings to those specified in Paragraph (d); plus
- (f) 15 per cent of the sum of the ampere ratings of the next twenty receptacles having the same or next smaller ratings to those specified in Paragraph (e); plus
- (g) 10 per cent of the sum of the ampere ratings of the remainder of the receptacles.

(2) Where a service or a feeder supplies receptacles as in Subrule (1), plus other loads, the capacity of the conductor shall be calculated in accordance with Subrule (1) plus the other loads in accordance with the other Rules of this Code.

78-058 Wiring Methods

(1) The wiring method, where exposed to the weather or splashing of water shall be:

- (a) Corrosion-resistant rigid metal conduit or rigid PVC conduit;
- (b) Mineral-insulated cable having a copper sheath;
- (c) Non-metallic sheathed cable of the NMWU type;
- (d) Armoured cable having moisture resistant insulation and overall corrosion protection; or
- (e) Metal sheathed cable having overall corrosion protection.

(2) Where flexibility is required outdoor flexible cord suitable for at least hard usage as specified in Table 11 shall be used.

78-060 Grounding and Bonding. Grounding and bonding requirements shall be in accordance with Section 10, except that an equipment bonding conductor of copper not smaller than No. 12 AWG shall be used.

78-062 Wiring Over and Under Navigable Water. Acceptance of a wiring installation over and under navigable water is subject to authorization from the authority having jurisdiction for the specific waterway.

78-064 Gasoline Dispensing Stations. Requirements shall be in accordance with Section 20 of this Code except that when considering hazardous areas, the grade or ground level shall be the lowest water surface.

Marine Wharves, Structures and Fishing Harbours

78-100 General. Rules 78-054, 78-056, 78-062, 78-064, 78-066 and 78-100 to 78-114 inclusive apply to electrical installations on marine wharves, marine structures and fishing harbours.

78-102 Receptacles

(1) Where receptacles are installed on fixed or floating piers, docks or wharves in fishing harbours or on marine structures, they shall be:

- (a) 15 ampere, single or duplex, locking or non-locking type conforming to Diagram 1 or 2; or
- (b) 20 ampere up to and including 60 ampere, single, locking type, conforming to Diagram 2 or special purpose pin and sleeve type; or
- (c) Over 60 ampere, single, special purpose pin and sleeve type.

(2) Receptacles shall be fabricated from materials resistant to a salt spray, and shall be provided with weatherproof enclosures.

(3) Fifteen- and 20-ampere, single-phase, 125-volt receptacles other than those supplying shore power to boats shall be protected by ground fault circuit interrupters of the Class A type.

78-104 Wiring Methods

(1) The wiring method, where exposed to the weather or splashing of water or salt spray, shall be:

- (a) Corrosion resistant rigid metal conduit, rigid RE conduit, or rigid PVC conduit;
- (b) Mineral-insulated cable having a copper sheath;
- (c) Nonmetallic sheathed cable of the NMWU type; or
- (d) Armoured or metal sheathed of types listed in Table 19 as suitable for exposed wiring in wet locations.

(2) To allow for tidal movement, an outdoor flexible cord suitable for wet locations and at least hard

usage as listed in Table 11 or equivalent, and supported at both ends of gangways to floats by means capable of gripping the cable in reaction to tension due to the weight of the cable or a pull on the cable shall be used.

(3) Conduit, cable, and overhead wiring shall be installed to avoid mechanical damage and shall be routed to avoid conflict with other potential users of the wharf or structure.

(4) Conduit, cable and wiring systems shall be installed to prevent damage from wave action, ice, storm damage, and mooring hooks and lines.

(5) Fastening hardware shall be galvanized steel, stainless steel, PVC coated steel, brass or other materials with similar corrosion resistant properties.

78-106 Grounding and Bonding

(1) Grounding and bonding requirements shall be in accordance with Section 10, except that bonding conductors of copper not smaller than No. 12 AWG shall be used.

(2) For electrical systems on wharves located in areas where it is impractical to install a shore-based grounding electrode because of poor earth conductivity, an underwater grounding grid conforming to one of the following methods are permitted:

- (a) On structures with steel piling where the piles are founded in the harbour bottom and continually immersed in salt water, it is permitted to ground to the piling provided the connections are readily accessible and the grounding conductor is mechanically protected throughout its length; or
- (b) On structures that do not conform to Paragraph (2)(a) it is permitted to connect the grounding conductor to a steel plate electrode, minimum 10 millimetres thick and 0.36 square metres in area; and
 - (i) The grounding conductor shall be connected to the plate electrode using a thermit-weld connection and shall be mechanically protected to point 2 metres below the normal low tide elevation; and
 - (ii) The plate electrode shall be founded on the harbour bottom on the lee side of the wharf where the lee side is determined from the prevailing winds.

78-108 Corrosion Resistant Materials (see Appendix B). Corrosion resistant materials, or materials resistant to corrosion shall be used for outdoor locations.

78-110 Wharf Facilities. All electrical wiring and equipment shall be located to avoid interference with

docking of vessels, unloading and loading of vessels, and operation of wharf equipment and trucks.

78-112 Equipment Location

- (1) Electrical equipment shall be:
- (a) Located above the wharf deck and protected from wave action, ice, storm damage, and mooring lines; and
 - (b) Located in such a manner as to minimize risk of damage from wave action and splashing; and
 - (c) Located to avoid impact from docking vessels and vehicular traffic on the wharf.

(2) Receptacles, communication systems, equipment, and other electrical apparatus that may be subject to mechanical damage shall be protected by mounting the equipment in robust shrouds or kiosks constructed of metal, concrete bollards, plywoods, fibreglass, or shall be protected by other equivalent methods.

SECTION 80 — CATHODIC PROTECTION

80-000 Scope

(1) This Section applies to the installation of impressed current cathodic protection systems.

(2) The requirements of this Section are supplementary to, or amendatory of, the general requirements of this Code.

80-002 Wiring Methods for Direct Current Conductors

(1) Direct Current Wiring in non-hazardous areas shall conform to the requirements of Section 12 of this Code except that wiring below ground is permitted to be:

- (a) Buried at a depth of not less than 450 millimetres; or
- (b) Buried at a depth of not less than 200 millimetres where installed in raceway or mechanical protection is provided in accordance with Rule 12-012(3).

(2) Direct Current wiring in hazardous areas shall conform to the requirements of Sections 18 and 20.

(3) Notwithstanding Rule 20-004(8), underground Direct Current wiring below a Class I, Division 1 or Division 2 area is permitted to be installed in accordance with Subrule (1) provided:

- (a) The wiring is in threaded rigid metal conduit where it emerges from the ground; and

- (b) The conduit is sealed where it emerges from the ground and at other locations as required by Rule 18-106 or Rule 18-154.

80-004 Conductors

(1) Conductors for direct current cathodic protection wiring shall be not smaller than No. 12 AWG and shall be suitable for the condition of use as indicated in Table 19 for the particular location where installed.

(2) Notwithstanding Subrule (1), conductors smaller than No. 12 AWG are permitted to be used for instrumentation and reference electrode leads.

80-006 Splices, Taps, and Connections

(1) Splices and taps shall be permitted to be made in Direct Current wiring below ground provided:

- (a) The splice or tap is made by welding, by a positive compression tool, by crimping and soldering, or by means of a copper, bronze, or brass cable connector; and
- (b) The splice or tap is effectively sealed against moisture by taping or some other method that is at least as effective as the original insulation of the conductor.

(2) The conductor shall be connected to piping by means of welding, or by means of a copper, bronze or brass grounding clamp.

(3) The conductor shall be connected to tanks or other structures by means of a welded ground stud or other permanent means.

(4) Underground connections shall be sealed against moisture by the application of an acceptable coating or other suitable method.

80-008 Branch Circuit. The branch circuit supplying the rectifier shall be:

- (a) In accordance with the requirements of Section 12 of this Code;
- (b) Provided solely for the cathodic protection system rectifier; and
- (c) Supplied from a switch or circuit breaker that is capable of being locked in the 'on' position.

80-010 Operating Voltage. When a cathodic protection system operates at more than 50 volts, the touch voltage at any exposed point of the protected system shall not exceed 10 volts.

80-012 Warning Signs and Drawings

(1) Tanks, pipes or structures protected by a cathodic protection system shall bear a marking, either on the structure, or on a tag attached to the conductor close to the connection to the structure, warn-

ing that the connection is not to be disconnected unless the power source is turned off.

(2) A notice shall be placed in a conspicuous location adjacent to the disconnecting means for any electrical apparatus that is connected to the cathodically protected structures advising that the cathodic protection must be turned off before equipment or piping is replaced or modified.

(3) A drawing showing the location of underground wiring and anodes shall be provided inside of the rectifier cabinet or in an acceptable location near the cabinet.

SECTION 82 — CLOSED-LOOP POWER DISTRIBUTION

82-000 Scope

(1) This Section applies to the installation of closed-loop power distribution systems.

(2) The requirements of this Section are supplementary to, or amendatory of, the general requirements of this Code.

82-002 Special Terminology. In this Section the following definition shall apply:

“Closed-loop power distribution system” means a power distribution system jointly controlled by signalling between the energy controlling equipment and the utilization equipment.

82-004 Approval. All components of a closed-loop power distribution system, including conductors shall be specifically approved for the purpose.

82-006 Control

(1) Outlets forming part of a closed-loop power distribution system shall not be energized unless the utilization equipment plugged therein first exhibits a nominal-operation acknowledgment.

(2) Outlets forming part of a closed-loop power distribution system shall be disconnected when any of the following conditions occur:

- (a) A nominal-operation acknowledgement signal is not being received from the utilization equipment connected to that outlet;
- (b) A ground-fault condition exists; or
- (c) An overcurrent condition exists.

(3) In the event of a controller malfunction, all associated outlets shall be de-energized.

82-008 Ground Fault Circuit Interrupters. Where a closed-loop power distribution system supplies a

receptacle incorporating a ground fault circuit interrupter it shall be of the Class A type.

82-010 Protection of Ungrounded Conductors. Approved devices providing equivalent overcurrent protection in closed-loop power distribution systems shall be permitted to substitute for fuses or circuit breakers.

82-012 Not Interchangeable

(1) Receptacles, cord connector bodies and attachment plugs used in a closed-loop power distribution system shall be constructed so that they are not interchangeable with other receptacles, cord connector bodies and attachment plugs.

(2) Notwithstanding Subrule (1), where the signalling path between the energy controlling equipment and the utilization equipment is an optical fiber, receptacles are permitted to have configurations corresponding to Diagrams 1 and 2, provided the applied voltage, available to the utilization equipment does not exceed the voltage rating of the receptacle and the current drawn by the utilization equipment does not exceed 80 percent of the current rating of the receptacle.

82-014 Power Limitation in a Control Circuit. Control circuits forming part of a closed-loop power distribution system shall be current limited in accordance with Rule 16-200.

82-016 Control Cables and Electric Power Conductors

(1) Hybrid power and control cabling are permitted within common jackets provided that the jacket insulation voltage rating is not less than the maximum nominal circuit voltage rating of any conductor in the jacket.

(2) The individual conductors of a hybrid cable shall conform to the requirements of this Code covering their current, voltage and insulation ratings.

(3) Hybrid cables incorporating optical fibers shall be installed in accordance with Section 56.

(4) Control cables and power conductors forming part of a closed-loop power distribution system are permitted to occupy the same cabinet, panelboard, outlet box or similar enclosure provided only connectors specifically approved for hybrid cabling are used.

82-018 Outlet Box. Notwithstanding the requirements of Rule 12-3002, an outlet box is not required where a component of a closed-loop power distribution system has been specifically approved for use as a connection box.

SECTION 84—INTERCONNECTION OF ELECTRIC POWER PRODUCTION SOURCES

84-000 Scope. This section is supplementary to, or amendatory of, the general sections of this Code and

applies to the installation of consumer-owned electric power generation equipment connected and operating in parallel with an other supply authority system.

84-002 General Requirement. The interconnection arrangements shall be in compliance with a code or standard under a rule or by-law of the supply authority concerning interconnection arrangements.

84-004 Interconnection. The outputs of consumer-owned electric power generators shall be interconnected on the load side of the consumer service equipment with protection against possible backfeed into a supply authority system fault.

84-006 Synchronization of Parallel Systems. Generators in a parallel system shall be provided with the necessary equipment to establish and maintain a synchronous condition without adverse effect on either system.

84-008 Loss of Supply Authority Voltage. Upon loss of voltage in one or more phases of the supply authority system, an electric power generator shall:

- (a) Be automatically disconnected from all ungrounded conductors of the supply authority system; and
- (b) Not be reconnected until the normal voltage of the supply authority system is restored.

84-010 Overcurrent Protection

(1) Equipment and conductors shall be protected in accordance with the rules of this Code.

(2) Equipment and conductors which are energized from both directions shall be provided with overcurrent protection from each source of supply.

84-012 Transformer Overcurrent Protection. Overcurrent protection for a transformer which is energized from both directions shall be provided in accordance with Section 26 by considering first one side of the transformer, then the other side of the transformer, as the primary.

84-014 System Protection Devices. Each parallel power generation installation shall be provided with such additional devices as are necessary for system stability and equipment protection.

84-016 Generator. The requirements for motors in Section 28 shall apply to:

- (a) Generator guarding; and
- (b) Selection and protection of conductors connected to the generator.

84-018 Ground Fault Protection. Ground fault protection shall be provided in accordance with Rule 14-102.

84-020 Unbalanced Interconnections. Means shall be provided for automatically disconnecting the output of a three phase generator from all ungrounded conductors of the interconnected system when one of its phases becomes disconnected.

84-022 Disconnecting Means — Generator. Disconnecting means shall be provided to disconnect simultaneously all ungrounded conductors of each electric power generator of a parallel system from all circuits supplied by the generator.

84-024 Disconnecting Means — Supply Authority System. Disconnecting means shall be provided to disconnect simultaneously all the electric power generators of the parallel system from the supply authority system.

84-026 Disconnecting Means — General

(1) Disconnecting means shall:

- (a) Be capable of being energized from both sides;
- (b) Plainly indicate whether it is in the open or closed position;
- (c) Have contact operation verifiable by direct visible means;
- (d) Have provision for being locked in the open position;
- (e) Conform to Sections 14, 28 and 36 of this Code if it includes an overcurrent device;
- (f) Be capable of being opened at rated load;
- (g) Be capable of being closed with safety to the operator with a fault on the system;
- (h) Be gang operated in high voltage three phase installations;
- (i) Bear a warning to the effect that inside parts can be energized when the disconnecting means is open; and
- (j) Be readily accessible.

(2) Where a main fusible disconnecting means is used, an isolating switch shall be provided to allow the fuses to be de-energized during handling.

84-028 Isolating Switch — Equipment. A means shall be provided to isolate equipment which is energized from both directions from all ungrounded conductors of each source of supply.

84-030 Grounding

(1) The ground at the service entrance shall be permitted to serve as the ground for the consumer's electric power generation and the grounding shall be in accordance with Section 10 and Section 36.

(2) Notwithstanding Subrule (1), a direct-current power source connected through a solid state inverter shall not be grounded unless the inverter is separated from the network by means of an isolating transformer.

84-032 Warning Notice and Diagram. The following notice and diagram shall be installed in a conspicuous place at the consumer's service and at each generator location:

- (a) Warning notice of a parallel system; and
- (b) A single line, permanent, legible diagram of the switching arrangement to indicate the location of all generators of a parallel system, the interlocks with their function and the isolation points.

TABLE 1

(See Rules 4-004, 8-104, 12-012, 12-2212, 26-000
26-744, 42-008 and 42-016 and Tables 5A, 5B, and 19)

**ALLOWABLE AMPACITIES FOR
SINGLE COPPER CONDUCTORS IN FREE AIR**

Based on Ambient Temperature of 30°C*

Size AWG kcmil	Allowable Ampacity†					
	60°C ‡	75°C ‡	85 – 90°C ‡	110°C ‡	125°C ‡	200°C ‡
	Type TW	Types RW75, TW75	Types R90, RW90, T90 NYLON Single-Conductor Mineral-Insulated Cable§	See Note (3)	See Note (3)	Bare Wire
14	20	20	20	40	40	45
12	25	25	25	50	50	55
10	40	40	40	65	70	75
8	55	65	70	85	90	100
6	80	95	100	120	125	135
4	105	125	135	160	170	180
3	120	145	155	180	195	210
2	140	170	180	210	225	240
1	165	195	210	245	265	280
0	195	230	245	285	305	325
00	225	265	285	330	355	370
000	260	310	330	385	410	430
0000	300	360	385	445	475	510
250	340	405	425	495	530	—
300	375	445	480	555	590	—
350	420	505	530	610	655	—
400	455	545	575	665	710	—
500	515	620	660	765	815	—
600	575	690	740	855	910	—
700	630	755	815	940	1005	—
750	655	785	845	980	1045	—
800	680	815	880	1020	1085	—
900	730	870	940	—	—	—
1000	780	935	1000	1165	1240	—
1250	890	1065	1130	—	—	—
1500	980	1175	1260	1450	—	—
1750	1070	1280	1370	—	—	—
2000	1155	1385	1470	1715	—	—
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7

*See Table 5A for the correction factors to be applied to the values in Columns 2 to 7 for ambient temperatures over 30°C.

†The ampacity of single-conductor aluminum-sheathed cable is based on the type of insulation used on the copper conductor.

‡These are maximum allowable conductor temperatures for single conductors run in free air and may be used in determining the ampacity of other conductor types in Table 19, which are so run, as follows: From Table 19 determine the maximum allowable conductor temperature for that particular type; then from Table 1 determine the ampacity under the column of corresponding temperature rating.

§These ratings are based on the use of 90°C insulation on the emerging conductors and for sealing. Mineral-insu-

lated cable may be used at higher temperatures without decrease in allowable ampacity, provided that insulation and sealing material approved for such higher temperature is used and that the use is lawful under Rule 2-030.

- NOTES: (1) *The ratings of Table 1 may be applied to a conductor mounted on a plane surface of masonry, plaster, wood, or any material having a conductivity not less than 0.4 W/(m°C).*
- (2) *For correction factors where from 2 to 4 conductors are present and in contact, see Table 5B.*
- (3) *These ampacities are only applicable under special circumstances where the use of insulated conductors having this temperature rating are acceptable.*
- (4) *Type R90 silicone wire may be used in ambient temperatures up to 65°C without applying the correction factors for ambient temperatures above 30°C provided the temperature of the conductor at the terminations does not exceed 90°C.*

TABLE 2

(See Rules 4-004, 8-104, 12-2212, 26-000, 26-744,
42-008, 42-016 and Tables 5A, and 19)

**ALLOWABLE AMPACITIES FOR
NOT MORE THAN 3 COPPER CONDUCTORS IN RACEWAY OR CABLE**

Based on Ambient Temperature of 30°C*

Size AWG kcmil	Allowable Ampacity†‡					
	60°C ‡	75°C ‡	85 – 90°C ‡	110°C ‡	125°C ‡	200°C ‡
	Type TW	Types RW75, TW75	Types R90, RW90, T90 NYLON	See Note (1)	See Note (1)	See Note (1)
			Paper			
Mineral-insulated Cable**						
14	15	15	15	30	30	30
12	20	20	20	35	40	40
10	30	30	30	45	50	55
8	40	45	45	60	65	70
6	55††	65	65	80	85	95
4	70	85	85	105	115	120
3	80	100	105	120	130	145
2	100	115	120	135	145	165
1	110	130	140	160	170	190
0	125	150	155	190	200	225
00	145	175	185	215	230	250
000	165	200	210	245	265	285
0000	195	230	235	275	310	340
250	215	255	265	315	335	—
300	240	285	295	345	380	—
350	260	310	325	390	420	—
400	280	335	345	420	450	—
500	320	380	395	470	500	—
600	355	420	455	525	545	—
700	385	460	490	560	600	—
750	400	475	500	580	620	—
800	410	490	515	600	640	—
900	435	520	555	—	—	—
1000	455	545	585	680	730	—
1250	495	590	645	—	—	—
1500	520	625	700	785	—	—
1750	545	650	735	—	—	—
2000	560	665	775	840	—	—
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7

*See Table 5A for the correction factors to be applied to the values in Columns 2 to 7 for ambient temperatures over 30°C.

†The ampacity of aluminum-sheathed cable is based on the type of insulation used on the copper conductors.

‡These are maximum allowable conductor temperatures for 1, 2, or 3 conductors run in a raceway, or 2 or 3 conductors run in a cable and may be used in determining the ampacity of other conductor types in Table 19, which are so run, as follows: From Table 19 determine the maximum allowable conductor temperature for that particular type; then from Table 2 determine the ampacity under the column of corresponding temperature rating.

**These ratings are based on the use of 90°C insulation on the emerging conductors and for sealing. Mineral-insulated cable may be used at higher temperatures without decrease in allowable ampacity, provided that insula-

tion and sealing material approved for such higher temperature is used and that the use is lawful under Rule 2-030.

††For 3-wire 120/240- and 120/208-residential services or sub-services the allowable ampacity for size No. 6 AWG shall be 60 A. In this case the 5% adjustment per Rule 8-106(1) cannot be applied.

‡‡See Table 5C for the correction factors to be applied to the values in Columns 2 to 7 where there are more than 3 conductors in a run of raceway or cable.

NOTES: (1) These ampacities are only applicable under special circumstances where the use of insulated conductors having this temperature rating are acceptable.

(2) Type R90 silicone wire may be used in ambient temperatures up to 65°C without applying the correction factors for ambient temperatures above 30°C provided the temperature of the conductor at the terminations does not exceed 90°C.

TABLE 3

(See Rules 4-004, 8-104, 12-012, 12-2212, 26-000,
26-744, 42-008 and 42-016 and Tables 5A, and 5B)

**ALLOWABLE AMPACITIES FOR
SINGLE ALUMINUM CONDUCTORS IN FREE AIR**

Based on Ambient Temperature of 30°C*

Size AWG kcmil	Allowable Ampacity†					
	60°C ‡	75°C ‡	85 – 90°C ‡	110°C ‡	125°C ‡	200°C ‡
	Type TW	Types RW75, TW75	Types R90, RW90, T90 NYLON	See Note (3)	See Note (3)	Bare Wire
12	20	20	20	40	40	45
10	30	30	30	50	55	60
8	45	45	45	65	70	80
6	60	75	80	95	100	105
4	80	100	105	125	135	140
3	95	115	120	140	150	165
2	110	135	140	165	175	185
1	130	155	165	190	205	220
0	150	180	190	220	240	255
00	175	210	220	255	275	290
000	200	240	255	300	320	335
0000	230	280	300	345	370	400
250	265	315	330	385	415	—
300	290	350	375	435	460	—
350	330	395	415	475	510	—
400	355	425	450	520	555	—
500	405	485	515	595	635	—
600	455	545	585	675	720	—
700	500	595	645	745	795	—
750	515	620	670	775	825	—
800	535	645	695	805	855	—
900	580	700	750	—	—	—
1000	625	750	800	930	990	—
1250	710	855	905	—	—	—
1500	795	950	1020	1175	—	—
1750	875	1050	1125	—	—	—
2000	960	1150	1220	1425	—	—
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7

*See Table 5A for the correction factors to be applied to the values in Columns 2 to 7 for ambient temperatures over 30°C.

†The ampacity of single-conductor aluminum-sheathed cable is based on the type of insulation used on the aluminum conductor.

‡These are maximum allowable conductor temperatures for single conductors run in free air and may be used in determining the ampacity of other conductor types in Table 19, which are so run, as follows: From Table 19 determine the maximum allowable conductor temperature for that particular type; then from Table 3 determine the ampacity under the column of corresponding temperature rating.

NOTES: (1) The ratings of Table 3 may be applied to a conductor mounted on a plane surface of masonry, plas-

- ter, wood, or any material having a conductivity not less than 0.4 W/(m·°C).*
- (2) For correction factors where from 2 to 4 conductors are present and in contact, see Table 5B.*
 - (3) These ampacities are only applicable under special circumstances where the use of insulated conductors having this temperature rating are acceptable.*

TABLE 4

(See Rules 4-004, 8-104, 12-2212, 26-000,
26-744, 42-008, 42-016 and Tables 5A, and 19)

ALLOWABLE AMPACITIES FOR
NOT MORE THAN 3 ALUMINUM CONDUCTORS IN RACEWAY OR CABLE

Based on Ambient Temperature of 30°C*

Size AWG kcmil	Allowable Ampacity†§					
	60°C ‡	75°C ‡	85 – 90°C ‡	110°C ‡	125°C ‡	200°C ‡
	Type TW	Types RW75, TW75	Types R90, RW90, T90 NYLON Paper	See Note	See Note	See Note
12	15	15	15	25	30	30
10	25	25	25	35	40	45
8	30	30	30	45	50	55
6	40	50	55**	60	65	75
4	55	65	65	80	90	95
3	65	75	75	95	100	115
2	75	90	95**	105	115	130
1	85	100	105	125	135	150
0	100	120	120	150	160	180
00	115	135	145	170	180	200
000	130	155	165	195	210	225
0000	155	180	185	215	245	270
250	170	205	215	250	270	—
300	190	230	240	275	305	—
350	210	250	260	310	335	—
400	225	270	290	335	360	—
500	260	310	330	380	405	—
600	285	340	370	425	440	—
700	310	375	395	455	485	—
750	320	385	405	470	500	—
800	330	395	415	485	520	—
900	355	425	455	—	—	—
1000	375	445	480	560	600	—
1250	405	485	530	—	—	—
1500	435	520	580	650	—	—
1750	455	545	615	—	—	—
2000	470	560	650	705	—	—
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7

*See Table 5A for the correction factors to be applied to the values in Columns 2 to 7 for ambient temperatures over 30°C.

†The ampacity of aluminum-sheathed cable is based on the type of insulation used on the aluminum conductors.

‡These are maximum allowable conductor temperatures for 1, 2, or 3 conductors run in a raceway, or 2 or 3 conductors run in a cable and may be used in determining the ampacity of other conductor types in Table 19, which are so run, as follows: From Table 19 determine the maximum allowable conductor temperature for the particular type; then from Table 4 determine the ampacity under the column of corresponding temperature rating.

§See Table 5C for the correction factors to be applied to the values in Columns 2 to 7 where there are more than 3 conductors in a run of raceway or cable.

**For 3-wire, 120/240- and 120/208-V residential services or sub-services, the allowable ampacity for sizes No. 2

and No. 6 AWG shall be 100 A and 60 A, respectively. In this case the 5% adjustment per Rule 8-106(1) cannot be applied.

NOTE: These ampacities are only applicable under special circumstances where the use of insulated conductors having this temperature rating are acceptable.

TABLE 5A

(See Rules 4-004(8), and 12-2212 and Tables 1, 2, 3, 4, 57, and 58)

CORRECTION FACTORS APPLYING TO TABLES 1, 2, 3, AND 4

Ampacity Correction Factors
for
Ambient Temperatures Above 30°C
(These correction factors apply, column for column, to Tables 1, 2, 3, and 4.
The correction factors in column 2 also apply to Table 57.)

Ambient Temperature °C	Correction Factor					
	60°C Type TW	75°C Types RW 75, TW 75	85-90°C Types R 90, RW 90 T 90, NYLON	110°C See Note (2)	125°C See Note (2)	200°C See Note (2)
40	0.82	0.88	0.90	0.94	0.95	1.00
45	0.71	0.82	0.85	0.90	0.92	1.00
50	0.58	0.75	0.80	0.87	0.89	1.00
55	0.41	0.65	0.74	0.83	0.86	1.00
60	—	0.58	0.67	0.79	0.83	0.91
70	—	0.35	0.52	0.71	0.76	0.87
75	—	—	0.43	0.66	0.72	0.86
80	—	—	0.30	0.61	0.69	0.84
90	—	—	—	0.50	0.61	0.80
100	—	—	—	—	0.51	0.77
120	—	—	—	—	—	0.69
140	—	—	—	—	—	0.59
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7

NOTES: (1) The ampacity of a given conductor type at these higher ambient temperatures is obtained by multiplying the appropriate value from Table 1, 2, 3, or 4 by the correction factor for that higher temperature.

(2) These ampacities are only applicable under special circumstances where the use of insulated conductors having this temperature rating are acceptable.

TABLE 5B*(See Rule 4-004(9) and Table 1)***CORRECTION FACTORS FOR TABLES 1 AND 3**Where from 2 to 4 Single Conductors
are Present and in Contact

Number of Conductors	Correction Factors
2	0.90
3	0.85
4	0.80

- NOTES: (1) Where four conductors form a 3-phase-with-neutral system, the values for three conductors may be used. Where three conductors form a single-phase, 3-wire system, the values for two conductors may be used.
- (2) Where more than four conductors are in contact, the ratings for conductors in raceways shall be used.

TABLE 5C*(See Rules 4-004 and 12-2212 and Tables 2 and 4)***AMPACITY CORRECTION FACTORS FOR TABLES 2 AND 4**

Number of Conductors	Ampacity Correction Factor
1 — 3	1.00
4 — 6	0.80
7 — 24	0.70
25 — 42	0.60
43 and up	0.50

TABLE 5D*(See Rule 12-2212)***CURRENT RATING CORRECTION FACTORS WHERE SPACINGS ARE
MAINTAINED (VENTILATED AND LADDER TYPE CABLE TRAYS)**

Number of Conductors or Cables Horizontally						
	1	2	3	4	5	6
Vertically						
1	1.00	0.93	0.87	0.84	0.83	0.82
2	0.89	0.83	0.79	0.76	0.75	0.74

TABLE 6
(See Rule 12-1014)

**MAXIMUM NUMBER OF CONDUCTORS OF ONE SIZE
IN TRADE SIZES OF CONDUIT OR TUBING**

NOTE: For ampacity derating factors for more than three conductors in raceways, see Rule 4-004.

Size of Conduit or Tubing — Inches	Conductor										6				
	Type	Size AWG, kcmil	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3		3 1/2	4	4 1/2	5
		14	3	6	10	18	25	41	58	90	121	155	195	200	200
		12	3	5	9	15	21	35	49	77	103	132	166	200	200
		10	2	4	7	13	17	29	41	64	86	110	138	174	200
		8	1	2	4	8	10	17	25	39	52	67	84	105	152
		6	1	1	2	5	6	11	15	24	32	41	51	64	93
		4	0	1	1	3	5	8	12	18	24	31	39	50	72
	RW75	3	0	1	1	3	4	7	10	16	21	28	35	44	63
		2	0	1	1	3	4	6	9	14	19	24	31	38	56
	R90	1	0	1	1	1	3	5	7	11	14	18	23	29	42
		0	0	0	1	1	2	4	6	9	12	16	20	25	37
	RW75 (XLPE)**	00	0	0	1	1	1	3	5	8	11	14	18	22	32
		000	0	0	1	1	1	3	4	7	9	12	15	19	28
	RW90 (XLPE)**	0000	0	0	0	1	1	2	4	6	8	10	13	16	24
		250	0	0	0	1	1	1	3	5	6	8	10	13	19
	RW75EP	300	0	0	0	1	1	1	3	4	5	7	9	11	17
		350	0	0	0	1	1	1	1	3	5	6	8	10	15
	RW90 EP	400	0	0	0	0	1	1	1	3	4	6	7	9	14
		500	0	0	0	0	1	1	1	3	4	5	6	8	11

(Continued)

TABLE 6 (Continued)

Size of Conduit or Tubing — Inches	Conductor										6		
	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4		4 1/2	5
Type	Size AWG, kcmil										6		
RW75	0	0	0	0	0	1	1	2	3	4	5	6	9
R90	0	0	0	0	0	1	1	1	3	4	4	6	8
RW75	0	0	0	0	0	1	1	1	3	3	4	5	8
(XLPE)**	0	0	0	0	0	1	1	1	2	3	4	5	8
RW90	0	0	0	0	0	1	1	1	2	3	4	5	7
(XLPE)**	0	0	0	0	0	1	1	1	1	2	3	4	6
RW75EP	0	0	0	0	0	0	0	1	1	1	2	3	5
RW90 EP	0	0	0	0	0	0	0	1	1	1	2	2	4
	14	7	11	20	28	46	65	100	135	173	200	200	200
	12	6	10	17	23	39	55	85	114	147	184	200	200
	10	5	8	14	19	32	45	70	94	121	152	190	200
TWU	8	2	4	7	10	16	23	36	48	61	77	97	140
RWU75 (XLPE)	6	1	3	5	8	13	18	28	38	49	61	77	111
	4	1	2	4	6	10	14	22	29	38	48	60	86
RWU90 (XLPE)	3	1	1	4	5	9	12	19	26	33	42	52	76
	2	0	1	3	4	7	11	17	22	29	36	45	65
	1	0	1	2	3	5	8	12	17	22	27	34	49
	0	1	1	1	3	5	7	11	14	19	23	29	43
00	0	0	1	1	2	4	6	9	12	16	20	25	37

000	1	1	1	3	5	8	10	14	17	21	31
0000	1	1	3	3	4	6	9	11	14	18	26
250	0	0	2	2	3	5	7	9	12	15	21
300	0	0	1	1	3	5	6	8	10	13	19
350	0	0	1	1	3	4	6	7	9	11	17
400	0	0	1	1	2	4	5	6	8	10	15
500	0	0	1	1	1	3	4	5	7	9	13
600	0	0	1	1	1	2	3	4	6	7	10
700	0	0	1	1	1	2	3	4	5	6	9
750	0	0	1	1	1	1	3	4	5	6	9
800	0	0	1	1	1	1	3	3	4	6	8
900	0	0	1	1	1	1	2	3	4	5	7
1000	0	0	1	1	1	1	2	3	4	5	7
1250	0	0	0	0	1	1	1	2	3	4	5
1500	0	0	0	0	1	1	1	1	2	3	5
1750	0	0	0	0	1	1	1	1	2	3	4
2000	0	0	0	0	1	1	1	1	1	2	4
14	3	5	8	14	46	71	96	123	155	194	200
12	2	4	7	28	40	62	83	107	134	168	200
10	1	3	6	24	34	52	70	91	114	143	200
8	1	1	3	14	20	31	42	54	68	85	123
6	1	1	1	8	11	18	24	31	39	49	70
4	0	1	1	5	9	14	19	25	32	40	57
3	0	1	1	4	8	13	17	23	28	35	51
2	0	1	1	3	7	11	15	20	25	31	46
1	0	1	1	2	5	9	12	15	19	24	35
0	0	0	0	3	5	8	10	13	17	21	31
00	0	0	1	3	4	7	9	12	15	18	27
000	0	0	1	2	4	6	8	10	13	16	23
0000	0	0	0	2	2	5	7	9	11	14	20

(Continued)

TABLE 6 (Continued)

Size of Conduit or Tubing — Inches	Conductor										6			
	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4		4 1/2	5	
Type	Size AWG, kcmil													
RWU75 (EP)	250	0	0	1	1	1	2	4	5	6	8	10	15	
	300	0	0	1	1	1	1	3	4	6	7	9	13	
	350	0	0	1	1	1	1	3	4	5	7	8	12	
	400	0	0	1	1	1	1	3	4	5	6	8	11	
	500	0	0	0	0	1	1	2	3	4	5	7	10	
	600	0	0	0	0	1	1	1	3	4	4	6	8	
	700	0	0	0	0	1	1	1	2	3	4	5	8	
	750	0	0	0	0	1	1	1	2	3	4	5	7	
	800	0	0	0	0	1	1	1	2	3	4	5	7	
	900	0	0	0	0	1	1	1	1	1	3	4	6	
RWU90 (EP)	1000	0	0	0	0	0	1	1	1	2	3	4	6	
	1250	0	0	0	0	0	0	1	1	1	2	3	4	
	1500	0	0	0	0	0	0	1	1	1	1	2	4	
	1750	0	0	0	0	0	0	1	1	1	1	2	3	
	2000	0	0	0	0	0	0	1	1	1	1	1	3	
	TW	14	9	15	25	44	60	99	142	200	200	200	200	200
		12	7	12	20	35	47	78	111	171	200	200	200	200
		10	5	9	15	26	36	60	85	131	176	200	200	200
		8	2	4	7	12	17	28	40	62	83	107	134	168
		6	1	1	4	7	10	16	23	36	48	62	78	97
(Sizes No. 8 and larger)		4	1	1	3	5	7	12	17	27	36	47	58	73
		3	1	1	2	4	6	10	15	23	31	40	50	63

RW75 (XLPE)§	2	1	1	2	4	5	9	13	20	27	34	43	54	78
R90 (XLPE)	1	0	1	1	3	4	6	9	14	19	25	31	39	57
RW90 (XLPE)§	0	0	1	1	2	3	5	8	12	16	21	27	33	49
	00	0	1	1	1	3	5	7	10	14	18	23	28	41
	000	0	0	1	1	2	4	6	9	12	15	19	24	35
	0000	0	0	1	1	1	3	5	7	10	13	16	20	29
TW	250	0	0	0	1	1	2	4	6	8	10	13	16	23
TW75	300	0	0	0	1	1	2	3	5	7	9	11	14	20
R90 Silicone (Sizes No. 8 and larger)	350	0	0	0	1	1	1	3	4	6	8	10	12	18
	400	0	0	0	1	1	1	2	4	5	7	9	11	16
	500	0	0	0	0	1	1	1	3	4	6	7	9	14
	600	0	0	0	0	1	1	1	3	4	5	6	7	11
	700	0	0	0	0	0	1	1	2	3	4	5	7	10
	750	0	0	0	0	0	1	1	2	3	4	5	6	9
	800	0	0	0	0	0	1	1	1	3	4	5	6	9
	900	0	0	0	0	0	1	1	1	2	3	4	5	8
R90 (XLPE)	1000	0	0	0	0	0	1	1	1	2	3	4	5	7
	1250	0	0	0	0	0	0	1	1	1	2	3	4	6
	1500	0	0	0	0	0	0	1	1	1	1	3	3	5
	1750	0	0	0	0	0	0	0	1	1	1	2	3	4
	2000	0	0	0	0	0	0	0	1	1	1	1	2	4
R90 Silicone	14	5	10	16	27	37	62	88	136	183	200	200	200	200
	12	4	8	13	23	31	51	73	112	150	193	200	200	200
	10	3	6	10	18	25	41	58	90	121	155	195	200	200
T90 NYLON	14	13	24	39	69	93	154	200	200	200	200	200	200	200
	12	10	18	29	51	69	115	163	200	200	200	200	200	200
	10	6	11	18	32	44	73	104	160	200	200	200	200	200
	8	3	5	9	15	21	35	50	78	105	135	169	200	200

(Continued)

TABLE 6 (Continued)

Size of Conduit or Tubing — Inches	Conductor												
	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	6
Type	Size AWG, kcmil												
T90 NYLON	6	4	6	11	15	25	36	56	76	98	122	154	200
	4	2	4	7	9	15	22	34	46	60	75	94	136
	3	1	3	6	8	13	19	29	39	51	64	80	116
	2	1	2	5	6	11	16	24	33	43	53	67	97
	1	0	2	3	5	8	12	19	26	33	42	52	76
	1/0	0	1	3	4	7	10	15	20	26	33	42	61
	2/0	0	0	2	3	5	8	13	17	22	28	35	51
	3/0	0	0	1	2	3	5	10	13	17	22	28	35
	4/0	0	0	1	2	3	4	7	10	14	18	23	29
	250	0	0	1	1	2	4	5	9	12	15	19	24
	300	0	0	0	1	2	3	4	7	9	12	15	19
	350	0	0	0	1	1	2	4	6	8	10	13	17
	400	0	0	0	1	1	2	3	5	7	9	12	15
	500	0	0	0	0	1	1	2	4	6	8	10	13

§ These are the values for Types RW75 XLPE and RW90 XLPE without a jacket.
 ** These are the values for Types RW75 XLPE and RW90 XLPE with a jacket.

TABLE 7
(See Rule 12-1014)
SIZE OF CONDUIT OR TUBING FOR A GIVEN NUMBER OF LEAD-SHEATHED CABLES
(NOT MORE THAN FOUR)

(Types RL90 and VL)
 (0—600 V)

NOTE: Subject to the range of conductors and types of wires for which aluminum conductors are approved.

Size AWG kcmil Copper or Aluminum	Trade Size of Conduit or Tubing—Inches												
	Single-Conductor Cable				2-Conductor Cable Flat or Round				3-Conductor Cable				
	Number of Cables in One Conduit												
	1	2	3	4	1	2	3	4	1	2	3	4	
14	1/2	3/4	3/4	1	3/4	1 1/4	1 1/4	1 1/2	1 1/2	3/4	1 1/4	1 1/2	1 1/2
12	1/2	3/4	3/4	1	3/4	1 1/4	1 1/4	1 1/2	2	1	1 1/2	2	2 1/2
10	1/2	1	1	1 1/4	1	1 1/2	2	2 1/2	2	1	2	2 1/2	3
8	1/2	1 1/4	1 1/4	1 1/2	1	2	2	3	1 1/4	1 1/4	2 1/2	3	3
6	3/4	1 1/4	1 1/4	1 1/2	1 1/4	2 1/2	2 1/2	3	1 1/4	1 1/4	2 1/2	3	3
4	3/4	1 1/4	1 1/2	2	1 1/4	2 1/2	3	3	1 1/2	1 1/2	3	3	3 1/2
3	3/4	1 1/4	1 1/2	2	1 1/4	3	3	3 1/2	1 1/2	1 1/2	3	3	3 1/2
2	1	1 1/2	1 1/2	2	1 1/4	3	3	3 1/2	2	2	3 1/2	4	4
1	1	2	2	2	1 1/2	3 1/2	3 1/2	4	2	2	4	5	5
0	1	2	2	2 1/2	2	3 1/2	3 1/2	5	2	2	4	5	5
00	1	2	2	2 1/2	2	3 1/2	4	5	2	2	4	5	5
000	1 1/4	2	2 1/2	3	2	4	4	5	2 1/2	2 1/2	5	5	6
0000	1 1/4	2 1/2	2 1/2	3	2 1/2	5	5	6	2 1/2	2 1/2	5	5	6

TABLE 7 (Continued)

Size AWG kernil Copper or Aluminum	Trade Size of Conduit or Tubing—Inches											
	Single-Conductor Cable				2-Conductor Cable Flat or Round				3-Conductor Cable			
	Number of Cables in One Conduit											
	1	2	3	4	1	2	3	4	1	2	3	4
250	1 1/4	2 1/2	3	3	2 1/2	5	5	6	3	6	6	6
300	1 1/4	3	3	3 1/2	3	5	6	—	3	6	6	—
350	1 1/2	3	3	3 1/2	3	6	6	—	3	6	6	—
400	1 1/2	3	3	3 1/2	3	6	6	—	3 1/2	6	6	—
500	1 1/2	3	3 1/2	4	3	6	—	—	3 1/2	—	—	—
600	2	3 1/2	4	5	3 1/2	—	—	—	4	—	—	—
700	2	4	4	5	4	—	—	—	4	—	—	—
750	2	4	4	5	4	—	—	—	4	—	—	—
800	2	4	5	5	4	—	—	—	5	—	—	—
900	2 1/2	4	5	5	4	—	—	—	5	—	—	—
1000	2 1/2	5	5	6	5	—	—	—	5	—	—	—
1250	2 1/2	5	5	6	—	—	—	—	—	—	—	—
1500	3	5	6	—	—	—	—	—	—	—	—	—
1750	3	6	6	—	—	—	—	—	—	—	—	—
2000	3	6	6	—	—	—	—	—	—	—	—	—

NOTE: The above conduit or tubing sizes apply to straight runs or to those with nominal off-sets equivalent to not more than two quarter-bends.

TABLE 8*(See Rule 12-1014)***MAXIMUM ALLOWABLE PER CENT CONDUIT AND TUBING FILL**

	Maximum Conduit and Tubing Fill Per Cent				
	Number of Conductors or Multi-conductor Cables				
	1	2	3	4	Over 4
Conductors or multi-conductor cables (not lead-sheathed)	53	31	40	40	40
Lead-sheathed conductors or multi-conductor cables	55	30	40	38	35

TABLE 9
(See Rule 12-1014)

CROSS-SECTIONAL AREAS OF CONDUIT AND TUBING

Trade Size Inches	Internal Diameter Inches	Per Cent Cross-Sectional Area of Conduit and Tubing — Square Inches								
		100%	55%	53%	40%	38%	35%	31%	30%	
1/2	0.622	0.30	0.165	0.159	0.120	0.114	0.105	0.09	0.090	
3/4	0.824	0.53	0.292	0.281	0.212	0.202	0.185	0.16	0.159	
1	1.049	0.86	0.473	0.456	0.344	0.327	0.301	0.27	0.258	
1 1/4	1.380	1.50	0.825	0.795	0.600	0.570	0.525	0.47	0.450	
1 1/2	1.610	2.04	1.122	1.081	0.816	0.776	0.714	0.63	0.612	
2	2.067	3.36	1.848	1.780	1.344	1.277	1.176	1.04	1.008	
2 1/2	2.469	4.79	2.635	2.540	1.916	1.820	1.677	1.48	1.437	
3	3.068	7.38	4.060	3.910	2.952	2.805	2.585	2.29	2.214	
3 1/2	3.548	9.90	5.450	5.250	3.960	3.765	3.465	3.07	2.970	
4	4.026	12.72	7.000	6.745	5.088	4.840	4.450	3.94	3.820	
4 1/2	4.506	15.94	8.771	8.452	6.378	6.060	5.581	4.94	4.784	
5	5.047	20.00	11.000	10.600	8.000	7.600	7.000	6.20	6.000	
6	6.065	28.89	15.900	15.320	11.556	10.980	10.120	8.96	8.670	

NOTE: The dimensions represent average conditions only and variations will be found in dimensions of conduit and tubing of different manufacture.

TABLE 10

(See Rule 12-1014)

DIMENSIONS OF INSULATED CONDUCTORS FOR CALCULATING CONDUIT AND TUBING FILL

NOTES: (1) Subject to the range of conductors and types of wires for which aluminum conductors are approved.
 (2) The dimensions represent average conditions only and variations will be found in dimensions of conductors of different manufacture.

Size AWG kcmil	Rubber (Thermoset)- and Thermoplastic-Insulated Conductors (0—600 V)											
	Types RW75, RW90, RW75 EP, RW90 EP, RW75 XLPE**, RW90 XLPE**		Types TW, TW75, RW75 XLPE\$, RW90 XLPE\$, R90 Silicone, R90 XLPE\$		Types TWU, RWU75 XLPE\$, RWU90 XLPE\$		Types RWU75 EP, RWU90 EP		Type T90 NYLON			
	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches
14	(2/64) 0.171	0.0230	0.131	0.0135	—	—	—	—	—	—	—	—
14	(3/64) 0.204*	0.0327*	0.166†	0.0216†	0.193	0.0293	0.231	0.0419	0.105	0.0087		
14	—	—	—	—	—	—	—	—	—	—	—	—
12	(2/64) 0.188	0.0278	0.148	0.0172	—	—	—	—	—	—	—	—
12	(3/64) 0.221*	0.0384*	0.183†	0.0263†	0.209	0.0343	0.247	0.0479	0.122	0.0117		
12	—	—	—	—	—	—	—	—	—	—	—	—
10	0.242	0.0460	0.168	0.0224	—	—	—	—	—	—	—	—
10	—	—	0.204†	0.0327†	—	—	—	—	—	—	—	—
10	—	—	—	—	0.230	0.0415	0.268	0.0564	0.153	0.0184		
8	0.311	0.0760	0.248	0.0475	0.324	0.0824	0.345	0.0935	0.219	0.0377		
6	0.397	0.1238	0.323	0.0819	0.363	0.1035	0.456	0.1633	0.257	0.0519		
4	0.452	0.1605	0.372	0.1087	0.412	0.1333	0.505	0.2003	0.328	0.0845		
3	0.481	0.1817	0.401	0.1263	0.440	0.1521	0.533	0.2231	0.356	0.0995		
2	0.513	0.2067	0.433	0.1473	0.473	0.1757	0.566	0.2516	0.388	0.1182		
1	0.588	0.2715	0.508	0.2027	0.544	0.2324	0.649	0.3308	0.450	0.1590		
0	0.629	0.3107	0.549	0.2367	0.585	0.2688	0.690	0.3739	0.491	0.1893		
00	0.675	0.3578	0.595	0.2781	0.632	0.3137	0.737	0.4266	0.537	0.2265		

(Continued)

TABLE 10 (Continued)

Rubber (Thermoset)- and Thermoplastic-Insulated Conductors (0—600 V)										
Size AWG kcmil	Types RW75, RW90, RW75 EP, RW90 EP, RW75 XLPE**, RW90 XLPE**		Types TW, TW75, RW75 XLPE§, RW90 XLPE§, R90 Silicone, R90 XLPE§		Types TWU, RWU75 XLPEA, RWU90 XLPE§		Types RWU75 EP, RWU90 EP		Type T90 NYLON	
	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches	Diameter Inches	Area Square Inches
000	0.727	0.4151	0.647	0.3288	0.684	0.3675	0.789	0.4889	0.588	0.2715
0000	0.785	0.4840	0.705	0.3904	0.744	0.4347	0.849	0.5661	0.646	0.3278
250	0.868	0.5917	0.788	0.4877	0.822	0.5307	0.977	0.7497	0.716	0.4026
300	0.933	0.6837	0.843	0.5581	0.878	0.6055	1.033	0.8381	0.771	0.4669
350	0.985	0.7620	0.895	0.6291	0.930	0.6793	1.085	0.9246	0.822	0.5307
400	1.032	0.8365	0.942	0.6969	0.978	0.7512	1.133	1.0082	0.869	0.5931
500	1.119	0.9834	1.029	0.8316	1.064	0.8891	1.219	1.1671	0.955	0.7163
600	1.233	1.1940	1.143	1.0261	1.180	1.0936	1.301	1.3294		
700	1.304	1.3355	1.214	1.1575	1.252	1.2311	1.373	1.4806		
750	1.339	1.4082	1.249	1.2252	1.287	1.3009	1.408	1.5570		
800	1.372	1.4784	1.282	1.2908	1.321	1.3706	1.442	1.6331		
900	1.435	1.6173	1.345	1.4208	1.385	1.5066	1.506	1.7813		
1000	1.494	1.7531	1.404	1.5482	1.444	1.6377	1.565	1.9236		
1250	1.676	2.2062	1.577	1.9532	1.616	2.0510	1.809	2.5702		
1500	1.801	2.5475	1.702	2.2748	1.741	2.3806	1.934	2.9377		
1750	1.916	2.8895	1.817	2.5930	1.858	2.7113	2.051	3.3039		
2000	2.021	3.2079	1.922	2.9013	1.966	3.0357	2.159	3.6610		
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11

* These are the dimensions for Types RW75 and R90.

† Dimensions of R90 silicone in sizes No. 14 to 10 AWG. Dimensions of R90 silicone in sizes No. 8 AWG and larger are the same as Type TW.

§ Dimensions for Types RW75 XLPE, R90 XLPE, RW90 XLPE, RWU75 XLPE, and RWU90 XLPE conductors without a jacket.

** Dimensions for Types RW75 XLPE and RW90 XLPE conductors with a jacket.

TABLE II

(See Rules 4-010, 4-018, 4-038, 4-040, 12-010, 16-112, 22-108, 30-312, 30-414, 32-100, 38-006, 38-008, 38-014, 38-016, 38-020, 44-350, 60-306, 70-108, 76-004, 76-012, 78-058 and 78-104)

CONDITIONS OF USE, VOLTAGE, AND TEMPERATURE RATINGS OF FLEXIBLE CORDS, HEATER CORDS, TINSEL CORDS, TINSEL CORDS, EQUIPMENT WIRES, CHRISTMAS-TREE CORDS, PORTABLE POWER CABLES, AND ELEVATOR CABLES

	Use	Kind	CSA Type Designation	Voltage Rating Volts	Temperature Rating		Reference Notes
					°C		
Dry Locations Only	Not for Hard Usage	Heat-Resistant Equipment Wire	GTF	600	125		4
		Equipment Wire	TXF	125	60		—
		Indoor Christmas-Tree Cord	TX PXT	125 125	60 60		— —
Damp (or Dry) Locations (Continued)	Not for Hard Usage	Flexible Cord	SV	300	60		—
			SVO	300	60		3, 14
			SVT	300	60		3, 14
			SPT-1	300	60		14
			SPT-2	300	60		14
			SPT-3	300	60		14
		Heater Cord	HPN	300	90		3, 14

(Continued)

TABLE 11 (Continued)

	Use	Kind	CSA Type Designation	Voltage Rating Volts	Temperature Rating		Reference Notes
					°C		
Damp (or Dry) Locations (Continued)	Not for Hard Usage	Tinsel Cord	TPT	300	60	60	—
			TST	300	60	60	—
	Equipment Wire	TEW	600	105	105	1, 3, 4, 11	
		TBS	600	90	90	4, 11	
		SIS	600	90	90	4, 11	
		REW	300	105	105	1, 3, 6, 11	
		REW	600	105	105	1, 3, 4, 6, 11	
		SEWF-1	300	150	150	1, 5, 11	
		SEW-1	300	200	200	1, 5, 11	
		SEWF-2	600	150	150	4, 5, 11	
		SEW-2	600	200	200	4, 5, 11	
		TEWN	600	105	105	1, 3, 11	
	For Hard Usage	Flexible Cord	SI	300	60	60	10
			SJO	300	60	60	3, 10, 14
SJT			300	60	60	3, 10, 14	
SPT-3			300	60	60	—	
		Heater Cord	HSJO	300	90	90	3, 8, 9, 10

TABLE 11 (Continued)

	Use	Kind	CSA Type Designation	Voltage Rating Volts	Temperature Rating		Reference Notes
						°C	
(Continued) Damp (or Dry) Locations	For Extra- Hard Usage	Flexible Cord	S	600	60	10	
			SO	600	60	3, 10, 13	
			ST	600	60	3, 10, 14	
	Elevator Cables (Travelling Cables)	Dryer and Range Cable	DRT	300	60	2	
			E	300	75	—	
		Elevator Cables (Travelling Cables)		E	600	75	—
				ETT	300	60	—
				ETT	600	60	—
				EO	300	75	3
				EO	600	75	3
Wet (or Damp or Dry) Locations (Continued)	Not For Hard Usage	Outdoor Christmas- Tree Cord	CXWT	300	60	—	
			CXWT	600	60	—	
			PXWT	300	60	—	
	For Hard Usage	Outdoor Equipment Wire	TXFW	300	60	—	
			Outdoor Flexible Cord	SJOW	300	60	3, 15
				SJTW	300	60	—

TABLE 11 (Continued)

	Use	Kind	CSA Type Designation	Voltage Rating Volts	Temperature Rating		Reference Notes
					°C		
(Continued) Wet (or Damp or Dry) Locations		Outdoor Flexible Cord	SOOW SOW STW	600 600 600	60 60 60		3, 15 3, 15 —
		For Extra- Hard Usage	W G G-GC G-BGC SHC-GC SH SHD SHD-GC SHD-BGC	2000 2000 2000 2000 2000 (2000, 5000, 8000, 15000, or 25000)	90 90 90 90 90 90 90 90 90 90		12 12 12 12 12 12 12 12 12 12

- NOTES: (1) Types REW, SEW, TEW, and TEWN shall be permitted in raceways for Class 1 circuits in accordance with Rule 16-112(2).
 (2) Dryer and range cables are for use only in household dryer and range power-supply cords. These cables are not for sale to the public for general use.
 (3) When exposed to oil, the temperature rating of the jacket of Types SVO, SVT, SJO, SJT, HSO, SO, ST, SGO, SOW, EO, and SJOW and the insulation of Type HPN heater cord and TEWN, REW and TEW equipment wire is limited to 60°C regardless of the temperature rating of the insulation.
 (4) Types GTF, REW, TEW, TBS, SIS, SEWF-2 and SEW-2 may be used in raceways in accordance with Rule 30-312(2)(c)(ii).
 (5) Types SEW-F and SEWF-2 with a nickel or a nickel-coated copper conductor have a temperature rating of 200°C. Types SEW-1, SEWF-1, SEW-2 and SEWF-2 with a nickel or a nickel-coated copper conductor may also have a temperature rating of 250°C.
 (6) Types having cross-linked PVC insulation are surface marked with the type designation followed by (XLPVC) and types having cross-linked chlorinated polyethylene are surface marked with the type designation followed by (XLCPE).
 (7) Types PXT and SPT-1 (Size No. 20 AWG) are not for sale to the public or for general use. They are for decorative lighting and electric clock use respectively.
 (8) When Type HSJO heater cord is provided with 90°C polychloroprene insulation (no asbestos insulation), the type designation "CR" and "90C" are surface printed on this cord.
 (9) When Type HSJO heater cords are provided with 90°C ethylene propylene rubber insulation (no asbestos insulation), the type designation and "EP" are surface marked on this cord and, in addition, "90C" is also surface marked on such Type HSJO cords.
 (10) Types HSJO, SJ, SJO, SJT, S, SO and ST flexible cords are now recognized only as components of equipment.
 (11) Suitable for use under Rule 38-006(2) when flame tested and acceptable for use in damp locations.
 (12) Natural rubber jackets are not suitable for use in oily environments.
 (13) Types SVO, SJO and SO are also available rated 90°C.
 (14) Types SVT, SPT-1, SPT-2, and SPT-3, SJT, HPN and ST are also available rated 105°C.
 (15) Types SOW, SOOW and SJOW are also available rated 90° and 105°C.

TABLE 12
 (See Rules 4-014 and 4-018)
ALLOWABLE AMPACITY OF FLEXIBLE CORD AND EQUIPMENT WIRE

Based on Ambient Temperature of 30°C.

Size AWG	Allowable Ampacity									
	Flexible Cord			Equipment Wire						
	Tinsel Cords	Christmas- Tree Cord	Types E, EO, ETT	Types PXWT, SV, SVO, SJ†, SJO†, SJOW, S†, SO†, SOW, SPT-1, SPT-2, SPT-3, SVT**, SJT†, SJTW, ST†, STW	Types HSJO†, HPN, DRT	Types TXF, TXFW	Types GIF*, TEW*, SEW*, REW*, TEWN*, SEWF*, TBS*, SIS*			
27	0.5	—	—	—	—	—	—	—	—	—
26	—	—	—	—	—	—	—	—	—	—
24	—	—	—	—	—	—	—	—	—	—
22	—	—	—	—	—	—	—	—	—	—
20	—	2	—	2	—	2	—	—	2	—
18	—	5	5	10	—	7	10	10	5	6
16	—	7	7	13	—	10	15	15	7	8
14	—	—	15	18	—	15	20	20	—	17
12	—	—	20	25	—	20	25	25	—	23
10	—	—	25	30	—	25	30+	30+	—	28
8	—	—	35	40	—	35	40+	40+	—	40
6	—	—	45	55	—	45	50+	50+	—	55
4	—	—	60	70	—	60	60+	60+	—	70
3	—	—	—	—	—	—	—	—	—	80

TABLE 12 (Continued)

Size AWG	Allowable Ampacity							
	Flexible Cord			Equipment Wire				
	Tinsel Cords	Christmas- Tree Cord	Types E, EO, ETT	Types PXWT, SV, SVO, SJ†, SJO‡, SJOW, S†, SO‡, SOW, SPT-1, SPT-2, SPT-3, SVT**, SJT‡, SJTW, ST†, STW	Types HSJO‡, HPN, DRT	Types TXF, TXFW	Types GTF*, TEW*, SEW*, REW*, TEWN*, SEWF*, TBS*, SIS*	
2	—	—	80	2 Current- Carrying Conductors	95	80	—	95
1	—	—	—	3 Current- Carrying Conductors*	—	—	—	110
1/0	—	—	—	—	—	—	—	125
2/0	—	—	—	—	—	—	—	145
3/0	—	—	—	—	—	—	—	165
4/0	—	—	—	—	—	—	—	195

*The derating factors of Rule 4-014(1)(b), (c), (d), and (e) are to be applied to these values for the types listed in this Column.

†These current ratings are for Type DRT household dryer and range cables only.

‡Types HSJO, SJ, SJO, SJT, S, SO, and ST flexible cords are now recognized only as components of equipment.

**Type SVT 2-conductor No. 17 AWG is recognized with an ampacity of 12 A, as a component of vacuum cleaners with retractable power supply cords.

TABLE 12A
 (See Rule 4-040)
ALLOWABLE AMPACITIES FOR PORTABLE POWER CABLES
 (AMPERES PER CONDUCTOR)

Power conductor size AWG or kcmil	Single Conductor					Two conductor		Three Conductor				Four conductor	
	2 000 V non-shielded	8 000 V* shielded	15 000 V* shielded	25 000 V* shielded	conductor		5 000 V non-shielded	8 000 V shielded	15 000 V shielded	25 000 V shielded	2 000 V		
					2 000 V	2 000 V					2 000 V	2 000 V	
8	83	—	—	—	72	—	59	—	—	—	—	54	
6	109	112	—	—	95	—	79	93	—	—	—	72	
4	145	148	—	—	127	—	104	122	—	—	—	93	
3	167	171	—	—	145	—	120	140	—	—	—	106	
2	192	195	195	—	167	—	138	159	164	178	—	122	
1	223	225	225	222	191	222	161	184	187	191	—	143	
1/0	258	260	259	255	217	255	186	211	215	218	—	165	
2/0	298	299	298	293	250	293	215	243	246	249	—	192	
3/0	345	345	343	337	286	337	249	279	283	286	—	221	
4/0	400	400	397	389	328	389	287	321	325	327	—	255	
250	445	444	440	430	363	430	320	355	359	360	—	280	
300	500	496	491	480	409	480	357	398	—	—	—	310	
350	552	549	543	529	436	529	394	435	—	—	—	335	
400	600	596	590	572	470	572	430	470	—	—	—	356	
450	650	610	633	615	497	615	460	503	—	—	—	377	
500	695	688	678	659	524	659	487	536	—	—	—	395	
550	737	732	—	—	—	—	—	—	—	—	—	—	
600	780	779	—	—	—	—	—	—	—	—	—	—	
650	820	817	—	—	—	—	—	—	—	—	—	—	
700	855	845	—	—	—	—	—	—	—	—	—	—	

(Continued)

TABLE 12A (Continued)

Power conductor size AWG or kcmil	Single Conductor				Two conductor		Three Conductor				Four conductor	
	2 000 V non-shielded	8 000 V* shielded	15 000 V* shielded	25 000 V* shielded	Two conductor		5 000 V non-shielded	8 000 V shielded	15 000 V shielded	25 000 V shielded	Four conductor	
					2 000 V							2 000 V
750	898	889	—	—	—	—	—	—	—	—	—	—
800	925	925	—	—	—	—	—	—	—	—	—	—
900	1 010	998	—	—	—	—	—	—	—	—	—	—
1 000	1 076	1 061	—	—	—	—	—	—	—	—	—	—

*These ampacities are based on single-isolated cable in air-operated with an open-circuited shield.

NOTES: (1) These ampacities are based on a conductor temperature of 90°C and an ambient air temperature of 40°C.
 (2) When cables are used in other ambient temperatures, the ampacities shall be corrected as follows:

Ambient Temperature °C	Correction Factors
10	1.26
20	1.18
30	1.10
40	1.00
50	0.90

TABLE 13

(See Rules 14-104 and 28-204)

**RATING OR SETTING OF OVERCURRENT DEVICES PROTECTING
CONDUCTORS**

(For general use where not otherwise specifically provided for)

Ampacity of Conductor	Rating or Setting Permitted		Ampacity of Conductor	Rating or Setting Permitted	
	Fuse Amperes	Circuit Breaker Amperes		Fuse Amperes	Circuit Breaker Amperes
0-15	15	15	126-150	150	150
16-20	20	20	151-175	175	175
21-25	25	30	176-200	200	200
26-30	30	30	201-225	225	225
31-35	35	40	226-250	250	250
36-40	40	40	251-275	300	300
41-45	45	50	276-300	300	300
46-50	50	50	301-325	350	350
51-60	60	60	326-350	350	350
61-70	70	70	351-400	400	400
71-80	80	100	401-450	450	500
81-90	90	100	451-500	500	500
91-100	100	100	501-525	600	600
101-110	110	125	526-550	600	600
111-125	125	125	551-600	600	600

TABLE 14

(See Rule 8-210)

**WATTS PER SQUARE METRE AND DEMAND FACTORS FOR
SERVICES AND FEEDERS FOR VARIOUS TYPES OF OCCUPANCY**

Type of Occupancy	Watts Per Square Metre	Demand Factor Per Cent	
		Service Conductors	Feeders
Store, Restaurant	30	100	100
Office	50	90	100
First 930 m ²	50	70	90
All in excess of 930 m ²			
Industrial and Commercial	25	100	100
Church	10	100	100
Garage	10	100	100
Storage Warehouse	5	70	90
Theatre	30	75	95
Armouries and Auditoriums	10	80	100
Banks	50	100	100
Barber Shops and Beauty Parlors	30	90	100
Clubs	20	80	100
Court Houses	20	100	100
Lodges	15	80	100

TABLE 15

(See Rule 36-102)

BENDING RADII—HIGH-VOLTAGE CABLE

Type of Cable	Cable Diameter Multiplying Factor See Note		
	Up to and Including 1-Inch Diameter	Over 1-Inch Diameter and up to and Including 2-Inch Diameter	Over 2-Inch Diameter
Lead Covered	10	12	12
Corrugated Aluminum Sheathed	10	12	12
Smooth Aluminum Sheathed	12	15	18
Tape Shielded	12	12	12
Flat Tape Armoured	12	12	12
Wire Armoured	12	12	12
Non-shielded	7	7	7
Wire Shielded	7	7	7
Portable Power Cables 5 kV and Less	6	6	6
Portable Power Cables Over 5 kV	8	8	8

NOTE: *Bending radii is that measured at the innermost surface and equals the overall diameter of the cable multiplied by the appropriate number shown in Columns 2, 3, and 4.*

TABLE 16

(See Rules 10-520, 10-814, 10-816, 10-906, 12-1814,
24-104, 24-202, 66-202, 68-058 and 68-406)

MINIMUM SIZE CONDUCTORS, METAL CONDUIT OR ELECTRICAL
METALLIC TUBING FOR BONDING RACEWAYS AND EQUIPMENT

Rating or Setting of Overcurrent Device in Circuit Ahead of Equipment, Conduit, Etc. Not Exceeding— Amperes	Size of Bonding Conductor		Size of Metal Conduit or Pipe Inches	Electrical Metallic Tubing Inches
	Copper Wire AWG	Aluminum Wire AWG		
20	14	12	1/2	1/2
30	12	10	1/2	1/2
40	10	8	1/2	1
60	10	8	3/4	1
100	8	6	1	1 1/4
200	6	4	1 1/4	1 1/2
300	4	2	1 1/4	1 1/2
400	3	1	2 1/2	2 1/2
500	2	0	2 1/2	2 1/2
600	1	00	3	4
800	0	000	4	4
1000	00	0000	4	4
1200	000	250 kcmil	6	—
1600	0000	350 kcmil	—	—
2000	250 kcmil	400 kcmil	—	—
2500	350 kcmil	500 kcmil	—	—
3000	400 kcmil	600 kcmil	—	—
4000	500 kcmil	800 kcmil	—	—
5000	700 kcmil	1000 kcmil	—	—
6000	800 kcmil	1250 kcmil	—	—

TABLE 17

(See Rules 10-204, 10-206 and 10-812)

**MINIMUM SIZE OF GROUNDING CONDUCTOR FOR AC SYSTEMS
OR COMMON GROUNDING CONDUCTOR**

Ampacity of Largest Service Conductor or Equivalent for Multiple Conductors	Size of Copper Grounding Conductor AWG
100 or less	8
101 to 125	6
126 to 165	4
166 to 200	3
201 to 260	2
261 to 355	0
356 to 475	00
Over 475	000

NOTE: The ampacity of the largest service conductor, or equivalent if multiple conductors are used, is to be determined from the appropriate Code Table taking into consideration the number of conductors in the conduit and the type of insulation.

TABLE 18

(See Rule 10-812)

**MINIMUM SIZE OF GROUNDING CONDUCTOR FOR SERVICE
RACEWAY AND SERVICE EQUIPMENT**

Ampacity of Largest Service Conductors or Equivalent for Multiple Conductors Not Exceeding—Amperes	Size of Grounding Conductor		
	Copper Wire AWG	Metal Conduit or Pipe Inches	Electrical Metallic Tubing Inches
60	8	¾	1
100	8	1	1¼
200	6	1 ¼	1½
400	3	2 ½	2½
600	1	3	4
800	0	4	4
Over 800	00	6	—

TABLE 19

(See Rules 4-006, 6-300, 12-100, 12-302, 12-404, 12-602, 12-606, 12-902, 12-904, 12-1608, 12-2104, 12-2204, 16-112, 16-210, 22-200, 22-202, 22-204, 22-206, 26-642, 30-312, 30-1004, 30-1102, 32-100, 32-202, 34-216, 38-006, 56-704, 74-004, 78-104, and 80-004 and Tables 1, 2, 3, and 4)

CONDITIONS OF USE AND MAXIMUM ALLOWABLE CONDUCTOR TEMPERATURE OF WIRES AND CABLES OTHER THAN FLEXIBLE CORDS, PORTABLE POWER CABLES, AND EQUIPMENT WIRES

Conditions of Use	Trade Designation	CSA Type Designation	Maximum Allowable Conductor Temperature		Reference Notes
			°C		
For exposed wiring in dry locations only	Armoured Cable	TECK90 AC90	90	90	4, 10, 12 4, 10, 12
For exposed wiring in dry locations where exposed to corrosive action, if suitable for corrosive conditions encountered	Armoured Cable	TECK90	90		2, 4, 10, 12
For exposed wiring in dry locations where not exposed to mechanical injury	Nonmetallic Sheathed Cable	NMD90	90		23

For exposed wiring in dry locations and in Category 1 and 2 locations, where not exposed to mechanical injury	Nonmetallic Sheathed Cable	NMW, NMWU	60	23
	Rubber (Thermoset-) Insulated Cable	R90	90	4, 9, 10, 11, 12
For exposed wiring in dry or damp locations	Thermoplastic-Insulated Cable	TW	60	4
	Nylon Jacketed Thermoplastic-Insulated Cable	T90 NYLON	90	14
For exposed wiring in wet locations	Nonmetallic Sheathed Cable	NMD90	90	18, 23
	Armoured Cable	TECK90 ACWU90	90 90	4, 7, 10, 12 4, 7, 10, 12
	Rubber (Thermoset-) Insulated Cable	RW75 RL90, RW90	75 90	4, 7, 10, 12 4, 7, 10, 12
	Aluminum-Sheathed Cable	RA75 RA90	75 90	7 4, 7, 10, 12
	Mineral-Insulated Cable	MI, LWMI	90	1, 7, 21
	Thermoplastic-Insulated Cable	TW TW75	60 75	4, 7 4, 7
	Nonmetallic Sheathed Cable	NMWU	60	7, 8, 23

(Continued)

TABLE 19 (Continued)

Conditions of Use	Trade Designation	CSA Type Designation	Maximum Allowable Conductor Temperature		Reference Notes
			°C		
For exposed wiring where exposed to the weather	Armoured Cable	TECK90	90		4, 10, 12
	Rubber (Thermoset-) Insulated Cable	RW75 R90, RW90	75 90		4, 10, 12 4, 10, 12
	Thermoplastic-Insulated Cable	TW, TWU TWU75	60 75		4 4
	Neutral-Supported Cable	NS-1, NSF-2	75		
For concealed wiring dry locations only	Nonmetallic Sheathed Cable	NMWU	60		8, 23
	Armoured Cable	TECK90 AC90	90 90		4, 10, 12 4, 10, 12
For concealed wiring dry and damp locations	Nonmetallic Sheathed Cable	NMD90	90		18, 23
For concealed wiring in dry locations and in Category 1 and 2 locations where not exposed to mechanical injury	Nonmetallic Sheathed Cable	NMW, NMWU	60		23

For concealed wiring in wet locations	Armoured Cable	TECK90 ACWU90	90 90	4, 7, 10, 12 4, 7, 10, 12
	Nonmetallic Sheathed Cable	NMWU	60	7, 8, 23
	Aluminum-Sheathed Cable	RA75 RA90	75 90	7 4, 7, 10, 12
For concealed knob-and-tube wiring in dry or damp locations	Mineral-Insulated Cable	MI, LWMI	90	1, 7, 21
	Rubber (Thermoset-) Insulated Cable	R90	90	4, 9, 10, 11, 12
	Thermoplastic-Insulated Cable	TW	60	4
	Nylon Jacketed Thermoplastic-Insulated Cable	T90 NYLON	90	14
For concealed knob-and-tube wiring in wet locations	Rubber (Thermoset-) Insulated Cable	RW75 RW90	75 90	4, 7, 10, 12 4, 7, 10, 12
	Thermoplastic-Insulated Cable	TW TW 75	60 75	4, 7 4, 7
For use in raceways, except cable trays, in dry or damp locations	Rubber (Thermoset-) Insulated Cable	R90	90	4, 9, 10, 11, 12
	Thermoplastic-Insulated Cable	TW	60	4
	Nylon Jacketed Thermoplastic-Insulated Cable	T90 NYLON	90	14

(Continued)

TABLE 19 (Continued)

Conditions of Use	Trade Designation	CSA Type Designation	Maximum Allowable Conductor Temperature		Reference Notes
			°C		
For use in raceways, except cable trays, in wet locations	Rubber (Thermoset-) Insulated Cable	RW75, RWU75 RW90, RWU90	75 90		4, 7, 10, 12 4, 7, 10, 12
	Thermoplastic-Insulated Cable	TW, TWU TW75, TWU75	60 75		4, 6, 7 4, 7
For use in ventilated, non-ventilated and ladder type cable trays in dry locations only	Armoured Cable	AC90 TECK90	90 90		4, 10, 12 4, 10, 12
	Armoured Cable	TECK90 ACWU90	90 90		4, 7, 10, 12 4, 7, 10, 12
For use in ventilated, non-ventilated and ladder type cable trays in wet locations	Aluminum-Sheathed Cable	RA75 RA90	75 90		7 4, 7, 10, 12
	Mineral-Insulated Cable	MI, LWMI	90		7
	Rubber (Thermoset-) Insulated Lead-Sheathed Cable	RL90	90		4, 7, 10, 12

For use in ventilated and non-ventilated cable trays in vaults and switch rooms	Rubber (Thermoset-) Insulated Cable	RW75 RW90	75 90	4, 10, 12, 13 4, 10, 12, 13
	Armoured Cable	ACWU90 TECK90	90 90	4, 5, 10, 12 4, 5, 10, 12
For direct earth burial (with protection as required by inspection authority)	Nonmetallic Sheathed Cable	NMWU	60	5, 23
	Rubber (Thermoset-) Insulated Cable	RWU75 RL90, RWU90	75 90	4, 5, 10, 12 4, 5, 10, 12
	Aluminum-Sheathed Cable	RA75 RA90	75 90	5 4, 5, 9, 10
For direct earth burial (with protection as required by inspection authority)	Mineral-Insulated Cable	MI, LWMI	90	1, 5, 21
	Thermoplastic-Insulated Cable	TWU TWU75	60 75	4, 5, 6 4, 5
	Airport series lighting cable	ASLC	90	22
For service entrance above ground	Armoured Cable	AC90 ACWU90 TECK90	90 90 90	19
	Aluminum-Sheathed Cable	RA75 RA90	75 90	

(Continued)

TABLE 19 (Continued)

Conditions of Use	Trade Designation	CSA Type Designation	Maximum Allowable Conductor Temperature		Reference Notes
			°C		
For service entrance above ground	Mineral-Insulated Cable	MI	90		1, 21
	Neutral Supported Cable	NS-1 NSF-2	75		
For service entrance below ground	Service-Entrance Cable	USE190 USEB90	90		4, 5, 10, 12 4, 5, 10, 12, 15
	Thermoplastic Insulated Wire	TWU TWU75	60		4, 5
	Rubber (Thermoset-) Insulated Cable	RWU75	75		4, 5, 10, 12
		RWU90	90		4, 5, 10, 12
	Armoured Cable	TECK90	90		
		ACWU90	90		
Aluminum-Sheathed Cable	RA75 RA90	75 90		5 5	
For high-voltage wiring in luminous-tube signs	Luminous-Tube Sign Cable	GTO, GTOL	60		
For use in raceways in hoistways	Hoistway Cable		60		16, 17
For use in Class 2 circuits, in exposed or concealed wiring or use in raceways, in dry or damp locations	Extra-Low-Voltage Control Cable	LVT	60		

For use in Class 2 circuits in dry locations in concealed wiring or exposed wiring where not subject to mechanical injury	Extra-Low-Voltage Control Cable	ELC	60	20
For use when concealed indoors under carpet squares, in dry or damp locations	Flat Conductor Cable	FCC	60	
For use in fire alarm, signal and voice communication circuits where exposed, concealed or used in raceways, indoors in dry or damp locations	Fire Alarm and Signal Cable	FAS FAS 90 FAS 105 FAS 200	60 90 105 200	26
For use in raceways including ventilated, non-ventilated and ladder type cable trays in wet locations and where exposed to weather	Tray Cable	TC	—	28
For use in cable trays in Class I Division 2 and Class II hazardous locations	Tray Cable	TC	—	28

(Continued)

TABLE 19 (Continued)

Conditions of Use	Trade Designation	CSA Type Designation	Maximum Allowable Conductor Temperature		Reference Notes
			°C		
For use in buildings in dry or damp locations, where exposed, concealed or used in raceways, or in plenums	Non-conductive Optical Fiber Cable	OFN	—		29
For use in buildings in dry or damp locations, where exposed, concealed or used in raceways, or in plenums	Conductive Optical Fiber Cable	OFC	—		29

- NOTES: (1) A maximum sheath temperature of 250°C is permissible for mineral-insulated cable, provided the temperature at the terminations does not exceed that specified in Tables 1 and 2. Any protective covering provided shall be suitable for the applicable sheath temperature.
- (2) May be used where exposed to heat, grease, or corrosive fumes, if suitable for the corrosive condition.
- (3) For bare or tinned copper conductors having individual strands smaller in diameter than 0.015 inch, the maximum allowable conductor temperature is 150°C.
- (4) When any of these types have an insulation or covering suitable for installation and use at temperatures down to minus 40°C, they are surface printed with the type designation followed by "MINUS 40C" or "(-40C)".
- (5) Conductors or cable assemblies acceptable for direct earth burial may be used for underground services in accordance with Rule 6-300.
- (6) Types TW and TWU, when provided with a nylon jacket, are also approved for use where adverse conditions may exist, such as in oil refineries and around gasoline storage or pump areas (eg, where subjected to alkaline conditions in the presence of petroleum solvents).

TABLE 19 (Continued)

- (7) Types suitable for use in wet locations may also be used in dry or damp locations.
- (8) Type NMWU cable is not suitable for use in aerial spans.
- (9) Types having silicone rubber insulation are surface marked with the type designation followed by "silicone", eg, R90 (silicone).
- (10) Types having cross-linked polyethylene insulation are surface marked with the type designation followed by "XLPE" or "XLPE", eg, R90 (X-Link) or R90 XLPE.
- (11) Type R90 silicone may be used to connect equipment which is marked as requiring supply conductors having insulation suitable for a temperature up to 125°C.
- (12) Types having ethylene-propylene insulation are surface marked with the type designation followed by "EP", eg, R90 (EP).
- (13) Types RW75 and RW90, when used under Rule 12-2204, are required to be flame tested.
- (14) When exposed to oil, Type T90 NYLON is limited to 60°C.
- (15) Type USEB90 shall have a nonmetallic jacket over concentric neutral conductor.
- (16) Hoistway cables may also be provided with 90°C insulation.
- (17) Except for short runs not exceeding 1.5 m in length, the parallel construction is intended for use in raceways in which the cables are laid in.
- (18) With thermoplastic jacket in damp locations.
- (19) For dry locations only.
- (20) Type ELC cable is limited to Class 2 circuit application as per Rule 16-210.
- (21) Mineral-insulated cable having a stainless steel sheath requires a separate grounding conductor. (See Rule 10-804(e)).
- (22) Type ASLC is for use only in accordance with Section 74.
- (23) NMD90, NMW, and NMWU were previously marked NMD-7, NMW-9, and NMW-10 respectively.
- (26) Types FAS, FAS 90, FAS 105, and FAS 200 may be provided with mechanical protection such as interlock armour or an aluminum sheath, with or without overall thermoplastic covering. A thermoplastic covering shall be provided over the interlock armoured cable when installed in a damp location.
- (28) The maximum allowable conductor temperature for Type IC cables is dependent on the temperature rating of the cable so marked.
- (29) OFN and OFC shall have a minimum cable temperature rating of 60°C. Cables having a temperature rating greater than 60°C shall be permitted provided that the temperature rating is surface marked on the cable.

TABLE 20

(See Rules 12-204 and 12-214)

SPACINGS FOR CONDUCTORS

Voltage of Circuit	Minimum Distance	
	Millimetres	
Volts	Between Conductors	From Adjacent Surfaces
0 to 300	65	13
301 to 750	100	25

TABLE 21

(See Rule 12-120)

SUPPORTING OF CONDUCTORS IN VERTICAL RUNS OF RACEWAYS

Conductor Sizes	Maximum Distance—Metres	
	Copper	Aluminum
14 to 8	30	30
6 to 0	30	60
00 to 0000	24	55
250 to 350	18	40
over 350 to 500	15	35
Over 500 to 750	12	30
Over 750	10	25

TABLE 22

(See Rule 12-3038)

SPACE FOR CONDUCTORS IN BOXES

Size of Conductor AWG	Usuable Space Required for Each Insulated Conductor Cubic Inches
14	1.5
12	1.75
10	2.25
8	2.75
6	4.5

TABLE 23

(See Rule 12-3038)

NUMBER OF CONDUCTORS IN BOXES

	Box Dimensions Inches Trade Size	Cubic Inch Capacity	Maximum Number of Conductors Size AWG				
			14	12	10	8	6
Octagonal	4 × 1½	15	10	8	6	5	3
	4 × 2⅛	21	14	12	9	7	4
Square	4 × 1½	21	14	12	9	7	4
	4 × 2⅛	30	20	17	13	10	6
	4⅞ × 1½	30	20	17	13	10	6
	4⅞ × 2⅛	42	28	24	18	15	9
Round	4 × ½	5	3	2	2	1	1
Device	3 × 2 × 1½	8	5	4	3	2	1
	3 × 2 × 2	10	6	5	4	3	2
	3 × 2 × 2¼	10	6	5	4	3	2
	3 × 2 × 2½	12.5	8	7	5	4	2
	3 × 2 × 3	15	10	8	6	5	3
	4 × 2 × 1½	9	6	5	4	3	2
	4 × 2⅛ × 1⅞	14	9	8	6	5	3
	4 × 2⅜ × 1⅞	16	10	9	7	5	3

(Continued)

TABLE 23 (Continued)

	Box Dimensions Inches Trade Size	Cubic Inch Capacity	Maximum Number of Conductors Size AWG				
			14	12	10	8	6
Masonry	3 $\frac{3}{4}$ × 2 × 2 $\frac{1}{2}$	14/ gang	9	8	6	5	3
	3 $\frac{3}{4}$ × 2 × 3 $\frac{1}{2}$	21/ gang	14	12	9	7	4
	4 × 2 $\frac{1}{4}$ × 2 $\frac{3}{8}$	20.25/ gang	13	11	9	7	4
	4 × 2 $\frac{1}{4}$ × 3 $\frac{3}{8}$	22.25/ gang	14	12	9	8	4
Through Box	3 $\frac{3}{4}$ × 2	6/inch	4	3	2	2	1
Concrete Ring	4	12/ inch	8	6	5	4	2
FS	1 Gang	14	9	8	6	5	3
	1 Gang Tandem	34	22	19	15	12	7
	2 Gang	26	17	14	11	9	5
	3 Gang	41	27	23	18	14	9
	4 Gang	56	37	32	24	20	12
FD	1 Gang	22.5	15	12	10	8	5
	2 Gang	41	27	23	18	14	9
	3 Gang	60	40	34	26	21	13
	4 Gang	85	56	48	37	30	18

TABLE 24

(See Rule 70-130)

MINIMUM INSULATION RESISTANCES FOR INSTALLATIONS

Installation Copper or Aluminum	Insulation Resistance Ohms
For circuits of No. 14 or No. 12 AWG	1 000 000
For circuits of No. 10 AWG or larger	
25 to 50 A	250 000
51 to 100 A	100 000
101 to 200 A	50 000
201 to 400 A	25 000
401 to 800 A	12 000
Over 800 A	5 000

NOTE: Where lampholders, receptables, fixtures, baseboard heaters or other appliances are connected to the installation or where excessive humidity exists lower insulation resistance values may be expected.

TABLE 25

(See Rules 14-306 and 28-304)

OVERCURRENT TRIP COILS FOR CIRCUIT BREAKERS AND OVERLOAD DEVICES FOR PROTECTING MOTORS

For Circuit Protection* Number and Location of Overcurrent Devices (Trip Coils)	System	For Motor Overload Protection		Kind of Motor
		Number and Location of Overload Devices such as Trip Coils, Relays, or Thermal Cutouts		
3-trip coils, one in each conductor	3-wire, 3-phase ac, ungrounded or with grounded neutral	3 —	one in each phase not to be connected in any neutral conductor	3-phase ac
3-trip coils, one in each phase	4-wire, 3-phase ac			
2-trip coils, one in each phase†	4-wire, 2-phase ac, ungrounded			
2-trip coils, one in each outside conductor	3-wire, 2-phase ac			
4-trip coils, one in each ungrounded conductor	4-wire, 2-phase ac, with grounded neutral	2 —	one in each phase, not to be connected in any neutral or grounded conductor	2-phase ac
4-trip coils, one in each ungrounded conductor	5-wire, 2-phase ac			
2-trip coils, one in each outside conductor	3-wire, 1-phase ac or dc			
1-trip coil in each ungrounded conductor	2-wire ac or dc, ungrounded or with one conductor grounded‡	1 —	in any conductor except a neutral or grounded conductor	1-phase ac or dc
2-trip coils, one in each ungrounded conductor	3-wire, 1-phase ac or dc, with grounded neutral			

* This will not preclude the use of other arrangements which will provide equivalent protection.

† For Services see Section 6.

‡ This will not prevent the use of one single-pole circuit breaker in each conductor for the protection of an ungrounded 2-wire circuit.

TABLE 26

(See Rules 28-106, 28-200, 28-208, 28-306, 28-308 and 28-808 and Table 29)

**SIZES OF CONDUCTORS, FUSE RATINGS, AND CIRCUIT BREAKER SETTINGS
FOR MOTOR OVERLOAD PROTECTION AND MOTOR CIRCUIT OVERCURRENT PROTECTION**

(This Table is based on Table 29 and a room temperature of 30°C.)

Full-load Current Rating of Motor Amperes	Minimum Allowable Ampacity of Conductor	Overload Protection for Running Protection of Motors		Overcurrent Protection Maximum Allowable Rating of Fuses and Maximum Allowable Setting of Circuit Breakers of the Time-Limit Type for Motor Circuits														
		Maximum Rating of Type D Fuses Amperes	Maximum Setting of Overload Devices Amperes	Single Phase All Types and Squirrel Cage and Synchronous (Full Voltage, Resistor and Reactor Starting)				Squirrel Cage and Synchronous (Autotransformer and Star-Delta Starting)				DC or Wound Rotor AC						
				Non-time Delay Fuses Amperes	Time Delay* "D" Fuses Amperes	Circuit Breaker Amperes	Non-time Delay Fuses Amperes	Time Delay* "D" Fuses Amperes	Circuit Breaker Amperes	Non-time Delay Fuses Amperes	Time Delay* "D" Fuses Amperes	Circuit Breaker Amperes	Non-time Delay Fuses Amperes	Time Delay* "D" Fuses Amperes	Circuit Breaker Amperes			
1	1.25	1.125	1.125	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
2	2.50	2.25	2.25	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
3	3.75	3.5	3.75	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
4	5.00	4.5	5.00	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
5	6.25	5.6	6.25	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6	7.50	7	7.50	20	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7	8.75	8	8.75	25	15	15	15	15	15	15	15	15	15	15	15	15	15	15
8	10.00	9	10.00	25	15	20	20	20	20	20	15	15	15	15	15	15	15	15
9	11.25	10	11.25	30	20	20	25	25	25	20	15	15	15	15	15	15	15	15
10	12.50	12	12.50	30	20	20	25	25	25	20	20	20	15	15	15	15	15	15
11	13.75	12	13.75	30	20	30	30	30	30	20	20	20	20	20	20	20	20	15
12	15.00	15	15.00	40	25	30	30	30	30	25	20	20	20	20	20	20	20	15

13	16.25	15	40	25	30	35	25	30	20	20	20
14	17.50	17.5	45	25	30	35	25	30	25	20	20
15	18.75	17.5	45	30	30	40	30	30	25	25	20
16	20.00	17.5	50	30	40	40	30	30	25	25	20
17	21.25	20	60	30	40	45	30	30	30	30	30
18	22.50	20	60	35	40	45	30	30	30	30	30
19	23.75	20	60	35	40	50	30	40	30	30	30
20	25.00	25	60	35	50	50	30	40	30	30	30
22	27.5	25	60	40	50	60	40	40	35	35	30
24	30.0	30	80	45	60	60	40	40	40	40	30
26	32.5	30	80	50	60	70	50	50	40	40	40
28	35.0	35	90	50	70	70	50	50	45	45	40
30	37.5	35	90	60	70	70	60	60	45	45	40
32	40.0	40	100	60	70	70	60	60	50	50	40
34	42.5	40	110	60	70	70	60	60	60	60	50
36	45.0	45	110	70	100	80	70	70	60	60	50
38	47.5	45	125	70	100	80	70	70	60	60	50
40	50.0	50	125	70	100	80	70	70	60	60	60
42	52.5	50	125	80	100	90	80	70	70	70	60
44	55.0	50	125	80	100	90	90	100	70	70	60
46	57.5	50	150	90	100	100	100	100	70	70	60
48	60.0	60	150	90	100	100	90	100	80	80	70
50	62.5	60	150	90	125	100	90	100	80	80	70
52	65.0	60	175	100	125	110	100	100	80	80	70
54	67.5	60	175	100	125	110	100	100	90	90	70
56	70.0	70	175	100	125	125	100	100	90	90	70
58	72.5	70	175	110	125	125	110	100	90	90	100
60	75.0	70	200	110	150	125	110	100	90	90	100
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 7A	Col. 8	Col. 9	Col. 9A	Col. 10

(Continued)

TABLE 26 (Continued)

Full-load Current Rating of Motor Amperes	Minimum Allowable Ampacity of Conductor	Overload Protection for Running Protection of Motors		Overcurrent Protection Maximum Allowable Rating of Fuses and Maximum Allowable Setting of Circuit Breakers of the Time-Limit Type for Motor Circuits									
		Maximum Rating of Type D Fuses Amperes	Maximum Setting of Overload Devices Amperes	Single Phase All Types and Squirrel Cage and Synchronous (Full Voltage, Resistor and Reactor Starting)			Squirrel Cage and Synchronous (Autotransformer and Star-Delta Starting)			DC or Wound Rotor AC			
				Non-time Delay Fuses Amperes	Time Delay* "D" Fuses Amperes	Circuit Breaker Amperes	Non-time Delay Fuses Amperes	Time Delay* "D" Fuses Amperes	Circuit Breaker Amperes	Non-time Delay Fuses Amperes	Time Delay* "D" Fuses Amperes	Circuit Breaker Amperes	
62	77.5	70	77.5	200	110	150	125	110	125	125	100	100	100
64	80.0	70	80.0	200	125	150	150	125	125	125	100	100	100
66	82.5	80	82.5	200	125	150	150	125	125	125	100	100	100
68	85.0	80	85.0	225	125	150	150	125	125	125	110	110	100
70	87.5	80	87.5	225	125	175	150	125	125	125	110	110	100
72	90.0	80	90.0	225	150	175	150	150	125	125	110	110	100
74	92.5	90	92.5	225	150	175	150	150	125	125	125	125	100
76	95.0	90	95.0	250	150	175	175	150	150	150	125	125	100
78	97.5	90	97.5	250	150	175	175	150	150	150	125	125	100
80	100.0	90	100.0	250	150	200	175	150	150	150	125	125	100
82	102.5	90	102.5	250	150	200	175	150	150	150	125	125	125
84	105.0	100	105.0	250	150	200	175	150	150	150	150	150	125
86	107.5	100	107.5	300	175	200	175	175	175	175	150	150	125
88	110.0	100	110.0	300	175	200	200	175	175	175	150	150	125
90	112.5	100	112.5	300	175	225	200	175	175	175	150	150	125
92	115.0	110	115.0	300	175	225	200	175	175	175	150	150	125
94	117.5	110	117.5	300	175	225	200	175	175	175	150	150	125

96	120.0	110	120.0	300	175	225	200	175	175	150	150	125
98	122.5	110	122.5	300	175	225	200	175	175	150	150	150
100	125.0	110	125.0	300	175	250	200	175	200	150	150	125
105	131.5	125	131.5	350	200	250	225	200	200	175	175	150
110	137.5	125	137.5	350	200	250	225	200	200	175	175	150
115	144.0	125	144.0	350	225	250	250	225	225	175	175	150
120	150.0	125	150.0	400	225	300	250	225	200	200	200	175
125	156.5	150	156.5	400	225	300	250	225	200	200	200	175
130	162.5	150	162.5	400	250	300	300	250	200	200	200	175
135	169.0	150	169.0	450	250	300	300	250	225	225	225	200
140	175.0	150	175.0	450	250	350	300	250	225	225	225	200
145	181.5	175	181.5	450	300	350	300	300	225	225	225	200
150	187.5	175	187.5	450	300	350	300	300	225	225	225	225
155	194	175	194	500	300	350	350	300	250	250	250	225
160	200	175	200	500	300	400	350	300	250	250	250	225
165	206	200	206	500	300	400	350	300	250	250	250	225
170	213	200	213	500	300	400	350	300	300	300	300	250
175	219	200	219	600	350	400	350	350	300	300	300	250
180	225	200	225	600	350	400	400	350	300	300	300	250
185	231	200	231	600	350	400	400	350	300	300	300	250
190	238	225	238	600	350	400	400	350	300	300	300	250
195	244	225	244	600	350	400	400	350	300	300	300	250
200	250	225	250	600	350	500	400	350	300	300	300	300
210	263	250	263	—	400	500	450	400	350	350	300	300
220	275	250	275	—	400	500	450	400	350	350	300	300
230	288	250	288	—	450	500	500	450	350	350	300	300
240	300	250	300	—	450	600	500	400	400	400	400	350
250	313	300	313	—	450	600	500	450	400	400	400	350
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 5A	Col. 6	Col. 7	Col. 7A	Col. 8	Col. 9	Col. 9A	Col. 10

(Continued)

TABLE 26 (Continued)

Full-load Current Rating of Motor Amperes	Minimum Allowable Ampacity of Conductor	Overload Protection for Running Protection of Motors		Overcurrent Protection Maximum Allowable Rating of Fuses and Maximum Allowable Setting of Circuit Breakers of the Time-Limit Type for Motor Circuits									
		Maximum Rating of Type D Fuses Amperes	Maximum Setting of Overload Devices Amperes	Single Phase All Types and Squirrel Cage and Synchronous (Full Voltage, Resistor and Reactor Starting)		Squirrel Cage and Synchronous (Autotransformer and Star-Delta Starting)		DC or Wound Rotor AC					
				Non-time Delay Fuses Amperes	Time Delay* "D" Fuses Amperes	Circuit Breaker Amperes	Non-time Delay Fuses Amperes	Time Delay* "D" Fuses Amperes	Circuit Breaker Amperes	Non-time Delay Fuses Amperes	Time Delay* "D" Fuses Amperes	Circuit Breaker Amperes	
260	325	300	325	—	500	600	600	500	400	500	400	400	350
270	338	300	338	—	500	600	600	500	400	500	450	450	400
280	350	300	350	—	500	600	600	500	450	500	450	450	400
290	363	350	363	—	600	600	600	600	450	600	450	450	400
300	375	350	375	—	600	600	600	600	450	600	450	450	400
320	400	350	400	—	—	—	—	—	—	—	500	500	400
340	425	400	425	—	—	—	—	—	—	—	600	600	500
360	450	400	450	—	—	—	—	—	—	—	600	600	500
380	475	450	475	—	—	—	—	—	—	—	600	600	500
400	500	450	500	—	—	—	—	—	—	—	600	600	600
420	525	500	525	—	—	—	—	—	—	—	—	—	—
440	550	500	550	—	—	—	—	—	—	—	—	—	—
460	575	500	575	—	—	—	—	—	—	—	—	—	—
480	600	500	600	—	—	—	—	—	—	—	—	—	—
500	625	600	625	—	—	—	—	—	—	—	—	—	—
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 5A	Col. 6	Col. 7	Col. 7A	Col. 8	Col. 9	Col. 9A	Col. 10	

*Time delay "D" fuses are those referred to in Rule 14-200.

TABLE 27

(See Rules 28-106, 28-112 and 38-010)

FOR DETERMINING CONDUCTOR SIZES FOR MOTORS FOR DIFFERENT REQUIREMENTS OF SERVICE

Classification of Service	Percentage of Nameplate Current Rating of Motor			
	5-Minute Rating	15-Minute Rating	30- and 60-Minute Rating	Continuous Rating
Short-Time Duty. Operating valves, raising or lowering rolls, etc.	110	120	150	—
Intermittent Duty. Freight and passenger elevators, tool heads, pumps, drawbridges, turntables, etc.	85	85	90	140
Periodic Duty. Rolls, ore- and coal-handling machines, etc.	85	90	95	140
Varying Duty	110	120	150	200

NOTE: For motor generator arc welders see Section 42.

TABLE 28

(See Rule 28-112)

FOR DETERMINING CONDUCTOR SIZES IN THE SECONDARY CIRCUITS OF MOTORS

Resistor Duty Classification	Duty Cycles	Carrying Capacity of Conductors in Per Cent of Full-Load Secondary Circuit
Light Starting Duty	5 sec on 75 sec off	35
Heavy Starting Duty	10 sec on 70 sec off	45
Extra Heavy Starting Duty	15 sec on 75 sec off	55
Light Intermittent Duty	15 sec on 45 sec off	65
Medium Intermittent Duty	15 sec on 30 sec off	75
Heavy Intermittent Duty	15 sec on 15 sec off	90
Continuous Duty	Continuous Duty	110

TABLE 29

(See Rules 28-200, 28-204, 28-208, 28-308 and Table 26)

RATING OR SETTING OF OVERCURRENT DEVICES FOR THE PROTECTION OF MOTOR BRANCH CIRCUITS

(Except as permitted in Table 26 where 15-A overcurrent protection for motor branch-circuit conductors exceeds the values specified in the following Table.)

Type of Motor	Per Cent of Full-Load Current		
	Maximum Fuse Rating		Maximum Setting Time-Limit Type Circuit Breaker
	Time Delay* "D" Fuses	Non-time Delay	
Alternating Current			
Single-Phase all types	175	300	250
Squirrel-Cage and Synchronous: Full-Voltage, Resistor and Reactor Starting	175	300	250
Auto-Transformer Starting: Not more than 30 A	175	250	200
More than 30 A	175	200	200
Wound Rotor	150	150	150
Direct Current	150	150	150

*Time delay "D" fuses are those referred to in Rule 14-200.

- NOTES: (1) The ratings of fuses for the protection of motor branch circuits as given in Table 26, are based upon fuse ratings appearing in the Table above, which also specifies the maximum settings of circuit breakers for the protection of motor branch circuits.
- (2) Synchronous motors of the low-torque low-speed type (usually 450 rpm, or lower) such as are used to drive reciprocating compressors, pumps, etc., and which start up unloaded, do not require a fuse rating or circuit-breaker setting in excess of 200% of full-load current.
- (3) For the use of instantaneous trip (magnetic only) circuit interrupters in motor branch circuits see Rule 28-210.

TABLE 30

(See Rule 36-108)

MINIMUM CLEARANCES FOR BARE CONDUCTORS—INDOORS

Voltage Class Kilovolts	Minimum Air Gap Distance in Millimetres	
	From Live Parts to Adjacent Surfaces Other Than Insulation and Bases of Conductor Supports	Between Live Parts (Not Centre-to-Centre)
2.5	100	150
5.0	125	150
7.5	150	175
15.0	175	250
23.0	250	380
34.5	330	480
46.0	430	610
69.0	635	840

TABLE 31

(See Rule 36-108)

MINIMUM CLEARANCES FOR BARE CONDUCTORS—OUTDOORS

Voltage Class Kilovolts	Minimum Air Gap Distance in Millimetres	
	From Live Parts to Adjacent Surfaces Other Than Insulation and Bases of Conductor Supports	Between Live Parts (Not Centre-to-Centre)
2.5	225	280
5.0	225	280
7.5	225	280
15.0	250	300
23.0	300	380
34.5	380	480
46.0	460	610
69.0	740	840

TABLE 32

(See Rule 36-110)

VERTICAL ISOLATION OF UNGUARDED LIVE PARTS

Voltage Class Kilovolts	Minimum Isolation by Vertical Clearance from Unguarded Live Parts to Floor or Grade		
	Metres		
	Indoors	Outdoors	
Light Snow Area*		Heavy Snow Area*	
2.5, 5.0, and 7.5	2.5	3	3.7
15.0	2.7	3	3.7
23.0	2.7	3	3.7
34.5	3	3.7	4.3
46.0	3	3.7	4.3
69.0	3	5.5	6.1

TABLE 33

(See Rules 26-302 and 36-110)

HORIZONTAL CLEARANCES FROM ADJACENT STRUCTURES

(Including Protuberances)

Voltage Class Kilovolts	Clearance Metres
2.5, 5.0, 7.5, 15.0, 23.0, 34.5 and 46.0	3
69.0	3.7

TABLE 34

(See Rule 36-110)

VERTICAL GROUND CLEARANCES FOR OPEN LINE CONDUCTORS

Voltage Class Kilovolts	Minimum Vertical Clearance Above Ground Metres
2.5, 5.0, 7.5 and 15.0	6.1
23.0	6.1
34.5	6.7
46.0	7
69.0	7.6

TABLE 35

(See Rule 36-212)

SPACING FOR ISOLATING SWITCHES AND FUSES
ASSEMBLED IN THE FIELD

(Not of the Metal Enclosed Type)

Voltage Class Kilovolts	Minimum Phase Spacing (Centre-to-Centre)	
	Disconnect Switches and Fuses Other Than Expulsion Types Millimetres	Horn-Gap Switches and Expulsion Fuses Millimetres
2.5, 5.0 and 7.5	460	915
15.0	610	915
23.0	760	1220
34.5	915	1525
46.0	1220	1830
69.0	1525	2135

TABLE 36

(See Rule 4-004(5))

**MAXIMUM ALLOWABLE AMPACITY OF NEUTRAL
SUPPORTED CABLE TYPES NS-1 and NSF-2**

(Based on Ambient Temperatures of 30°C)

Size AWG	Ampacity (Aluminum Conductors)	
	Two Insulated Conductors	Three Insulated Conductors
8	55	45
6	70	60
4	95	80
3	110	95
2	125	105
1	145	120
0	165	140
00	190	160
000	215	185
0000	250	215

NOTES: (1) *The above values assume radiation from the sun, a wind velocity of 0.6 m/s and a maximum conductor temperature of 75°C.*

(2) *For ambients of 40°C and 50°C multiply the above values by 0.88 and 0.75, respectively.*

TABLE 37

(See Rule 28-104 and Appendix B)

**MOTOR SUPPLY CONDUCTOR INSULATION
MINIMUM TEMPERATURE RATING**

(Degrees Celsius)

(Based on Ambient Temperature of 30°C)

Motor Enclosure	Insulation Class Rating			
	A	B	F	H
All except totally enclosed non-ventilated	75	75	90	110
Totally enclosed non-ventilated	75	90	110	110

TABLE 40

(See Rule 12-1006)

**EXTERNAL TAPERED THREADS
FOR
RIGID METAL CONDUIT**

Trade Size of Conduit Inches	Number of Threads Per Inch	External Threads	
		Length of Thread	
		Minimum Inches	Maximum Inches
1/2	14	0.64 (¹⁰ / ₁₆)*	0.78(¹² / ₁₆)*
3/4	14	0.65 (¹⁰ / ₁₆)	0.79 (¹³ / ₁₆)
1	11 1/2	0.81 (¹³ / ₁₆)	0.98 (1)
1 1/4	11 1/2	0.84 (¹³ / ₁₆)	1.01 (1)
1 1/2	11 1/2	0.86 (¹⁴ / ₁₆)	1.03 (¹¹ / ₁₆)
2	11 1/2	0.89 (¹⁴ / ₁₆)	1.06 (¹¹ / ₁₆)
2 1/2	8	1.32 (¹⁵ / ₁₆)	1.57 (¹⁹ / ₁₆)
3	8	1.36 (¹⁶ / ₁₆)	1.63 (¹¹⁰ / ₁₆)
3 1/2	8	1.43 (¹⁷ / ₁₆)	1.68 (¹¹¹ / ₁₆)
4	8	1.48 (¹⁸ / ₁₆)	1.73 (¹¹² / ₁₆)
5	8	1.59 (¹⁹ / ₁₆)	1.84 (¹¹³ / ₁₆)
6	8	1.70 (¹¹¹ / ₁₆)	1.95 (¹¹⁵ / ₁₆)

*Fractional dimensions in parentheses are approximate.

TABLE 41

(See Rules 10-614 and 70-126)

**MINIMUM SIZE OF BONDING JUMPER
FOR SERVICE RACEWAYS**

Ampacity of Largest Service Conductor or Equivalent for Multiple Conductors	Size of Bonding Jumper	
	Copper Wire AWG	Aluminum Wire AWG
100 or less	8	6
200	6	4
400	4	2
600	2	0
800	0	00
1000	00	000
1200	000	0000

TABLE 42

(See Rule 12-2202)

LOAD CLASSES

Class	Maximum Design Load for Maximum Associated Support Spacing	
	Design Load Kilograms per Metre	Design Support Spacing Metres
A	37	3
C1	97	3
D1	67	6
E	112	6

TABLE 43

(See Rule 10-702)

**MINIMUM CONDUCTOR SIZE
FOR
CONCRETE ENCASED ELECTRODES**

Ampacity of Largest Service Conductor or Equivalent for Multiple Conductors Amperes	Size of Bare Copper Conductor AWG
165 or less	4
166—200	3
201—260	2
261—355	0
356—475	00
Over 475	000

TABLE 44
(See Rules 28-010 and 28-704)
THREE-PHASE AC MOTORS

3-Phase Motor Rating hp	AC Motor Full-Load Current in Amperes (See Notes (1), (2), (3), and (5))									
	Induction Type, Squirrel Cage and Wound Rotor Amperes					Synchronous Type, Unity Power Factor (See Note (4)) Amperes				
	115 V	230 V	460 V	575 V	2300 V	230 V	460 V	575 V	2300 V	2300 V
1/2	4	2	1	0.8	—	—	—	—	—	—
3/4	5.6	2.8	1.4	1.1	—	—	—	—	—	—
1	7.2	3.6	1.8	1.4	—	—	—	—	—	—
1 1/2	10.4	5.2	2.6	2.1	—	—	—	—	—	—
2	13.6	6.8	3.4	2.7	—	—	—	—	—	—
3	—	9.6	4.8	3.9	—	—	—	—	—	—
5	—	15.2	7.6	6.1	—	—	—	—	—	—
7 1/2	—	22	11	9	—	—	—	—	—	—
10	—	28	14	11	—	—	—	—	—	—
15	—	42	21	17	—	—	—	—	—	—
20	—	54	27	22	—	—	—	—	—	—
25	—	68	34	27	—	—	—	—	—	—
30	—	80	40	32	—	—	—	—	—	—
40	—	104	52	41	—	—	—	—	—	—
50	—	130	65	52	—	—	—	—	—	—
60	—	154	77	62	16	—	—	—	—	—
75	—	192	96	77	20	—	—	—	—	—
100	—	248	124	99	26	128	64	51	12	12
						161	81	65	15	15
						211	106	85	20	20

(Continued)

TABLE 44 (Continued)

(See Rules 28-010 and 28-704)

THREE-PHASE AC MOTORS

3-Phase Motor Rating hp	AC Motor Full-Load Current in Amperes (See Notes (1), (2), (3), and (5))									
	Induction Type, Squirrel Cage and Wound Rotor					Synchronous Type, Unity Power Factor (See Note (4))				
	Amperes					Amperes				
	115 V	230 V	460 V	575 V	2300 V	230 V	460 V	575 V	2300 V	2300 V
125	—	312	156	125	31	264	132	106	25	25
150	—	360	180	144	37	—	158	127	30	30
200	—	480	240	192	49	—	210	168	40	40

- NOTES: (1) For full-load currents of 208 and 200 V motors, increase the corresponding 230 V motor full-load current by 10 and 15%, respectively.
 (2) These values of motor full-load current are to be used as guides only. Where exact values are required (eg, for motor protection), always use those appearing on the motor nameplate.
 (3) These values of motor full-load current are for motors running at speeds usual for belted motors and motors with normal torque characteristics. Motors built for especially low speeds or high torques may require more running current, and multi-speed motors will have full-load current varying with speed, in which case the nameplate current rating shall be used.
 (4) For 90 and 80% power factor multiply the above figures by 1.1 and 1.25, respectively.
 (5) The voltages listed are rated motor voltages. Corresponding Nominal System Voltages are 120, 240, 480 and 600 V. Refer to CSA Standard CAN3-C235-M83, Preferred Voltage Levels for AC Systems, 0 to 50,000 Volts.

TABLE 45

(See Rules 28-010 and 28-704)

SINGLE-PHASE AC MOTORS

Single-Phase AC Motors Full-Load Current in Amperes (see Notes (1) to (4))		
hp Rating	115 V	230 V
1/6	4.4	2.2
1/4	5.8	2.9
1/3	7.2	3.6
1/2	9.8	4.9
3/4	13.8	6.9
1	16	8
1 1/2	20	10
2	24	12
3	34	17
5	56	28
7 1/2	80	40
10	100	50

- NOTES: (1) For full-load currents of 208 and 200 V motors, increase the corresponding 230 V motor full-load current by 10 and 15%, respectively.
- (2) These values of motor full-load current are to be used as guides only. Where exact values are required (e.g., for motor protection), always use those appearing on the motor nameplate.
- (3) These values of full-load current are for motors running at usual speeds and motors with normal torque characteristics. Motors built for especially low speeds or high torques may have higher full-load currents, and multi-speed motors will have full load current varying with speed, in which case the nameplate current ratings shall be used.
- (4) The voltages listed are rated motor voltages. Corresponding Nominal System Voltages are 120 and 240 V. Refer to CSA Standard CAN3-C235-M83, Preferred Voltage Levels for AC Systems, 0 to 50,000 Volts.

TABLE 48

(See Rule 70-104)

SIZE OF CONDUIT FOR MOBILE HOMES

Rating of Main Overcurrent Protection Amperes	Minimum Trade Size of Conduit Inches	
	Excluding System Ground	Including System Ground
50	1	1¼
60	1¼	1¼
100	1¼	1½
150	2	2
200	2	2½

NOTE: These sizes are based on the use of copper conductors.

TABLE 50

(See Rule 26-252)

TRANSFORMERS RATED OVER 600 V HAVING PRIMARY AND
SECONDARY OVERCURRENT PROTECTION

Transformer Rates Impedance	Maximum Setting or Rating of Overcurrent Device as a Percentage of Rated Current of Transformer				
	Primary Side		Secondary Side		
	Over 600 V		Over 600 V		600 V or Below
	Circuit Breaker Setting Per Cent	Fuse Rating Per Cent	Circuit Breaker Setting Per Cent	Fuse Rating Per Cent	Circuit Breaker Setting or Fuse Rating Per Cent
Not more than 7.5%	600	300	300	150	250
More than 7.5% and not more than 10%	400	200	250	125	250

TABLE 51

(See Rules 36-300 and 36-306)

MINIMUM SIZE OF BARE COPPER GROUNDING CONDUCTOR

Maximum Available Short Circuit Current (Amperes)	Maximum Fault Duration			
	0.5 Seconds		1.0 Second	
	With Exothermic Weld, Compression or Bolted Joint ⁽²⁾	With Brazed Joint	With Exothermic Weld, Compression or Bolted Joint ⁽²⁾	With Brazed Joint
5 000	6	5	4	3
10 000	3	2	1	1/0
15 000	1	1/0	1/0	3/0
20 000	1/0	2/0	3/0	4/0
25 000	2/0	3/0	4/0	250*
30 000	3/0	4/0	4/0	300*
35 000	4/0	250*	250*	350*
40 000	4/0	300*	300*	400*
50 000	250*	350*	350*	500*
60 000	300*	400*	500*	600*
70 000	350*	500*	500*	700*
80 000	400*	600*	600*	800*
90 000	500*	600*	700*	900*
100 000	500*	700*	700*	1000*

*Wire size in kcmil, all others in AWG

NOTES: (1) Sizes calculated in accordance with IEEE Standard No. 80, Guide for Safety in AC Substation Grounding.

(2) With connector approved to CSA Standard C22.2 No. 41, Grounding and Bonding Equipment.

TABLE 52

(See Rules 36-304, 36-308, and 36-310)

TOLERABLE TOUCH AND STEP VOLTAGES

Type of Ground	Resistivity	Fault Duration 0.5 s		Fault Duration 1.0 s	
		Step Voltage	Touch Voltage	Step Voltage	Touch Voltage
	Ohm-Metres	Volts	Volts	Volts	Volts
Wet Organic Soil	10	174	166	123	118
Moist Soil	100	263	188	186	133
Dry Soil	1 000	1 154	405	816	286
150 mm Crushed Stone	3 000	3 143	885	2 216	626
Bed Rock	10 000	10 065	2 569	7 116	1 816

NOTES: (1) Table values calculated in accordance with IEEE Standard No. 80, Guide for Safety in AC Substation Grounding.

(2) A typical substation installation is designed for 0.5 s fault duration and the entire ground surface inside the fence is covered with 150 mm of crushed stone having a resistivity of 3000 Ω :m.

TABLE 53

(See Rule 12-012)

**MINIMUM COVER REQUIREMENTS
FOR DIRECT BURIED CONDUCTORS,
CABLES OR RACEWAYS**

Wiring Method	Minimum Cover—Millimetres			
	Non-vehicular Areas		Vehicular Areas	
	750 V or Less	Over 750 V	750 V or Less	Over 750 V
Conductors or cable not having a metal sheath or armour	600	750	900	1000
Conductor or cables having a metal sheath or armour	450	750	600	1000
Raceway	450	750	600	1000

NOTE: *Minimum cover means the distance between the top surface of the conductor, cable, or raceway and the finished grade.*

TABLE 56

(See Rule 2-308)

**MINIMUM WORKING SPACE ABOUT ELECTRICAL
EQUIPMENT HAVING EXPOSED LIVE PARTS**

Nominal Voltage-to-Ground	Working Space Metres
0 - 750	1.0
751 - 2 500	1.2
2 501 - 9 000	1.5
9 001 - 25 000	1.9
25 001 - 46 000	2.5
46 001 - 69 000	3.0
Over 69 000	3.7

TABLE 57

(See Rule 16-210(6))

**ALLOWABLE AMPACITIES FOR CLASS 2
COPPER CONDUCTORS**

(Based on Ambient Temperature of 30°C†)

Size AWG	Single Conductors in Free Air Amperes	Not More Than 3 Copper Conductors in Raceway or Cable* Amperes
26	3	1
24	4	2
22	5	2.5
20	7	3.5
19	8	4
18	9	5
16	13	10
Col. 1	Col. 2	Col. 3

*Where more than 3 conductors are in a raceway or cable, apply the following derating factors to Column 3.

Conductor in Raceway or Cable	Derating Factor
4—6	0.8
7—24	0.7
25—42	0.6
43—50	0.5

†For ambient temperatures over 30°C for Columns 2 and 3, apply the correction factors of Table 5A, Column 2.

TABLE 58

(See Rule 40-002)

**AMPACITIES OF UP TO FOUR INSULATED COPPER CONDUCTORS
IN RACEWAY OR CABLE FOR SHORT TIME RATED CRANE AND
HOIST MOTORS**

(Based on Ambient Temperature of 30°C)

Max. Operating Temp.	75°C		90°C		110°C	
	60 min	30 min	60 min	30 min	60 min	30 min
Size AWG						
kcmil						
16	10	12	—	—	—	—
14	25	26	31	32	38	40
12	30	33	36	40	45	50
10	40	43	49	52	60	65
8	55	60	63	69	73	80
6	76	86	83	94	93	105
5	85	95	95	106	109	121
4	100	117	111	130	126	147
3	120	141	131	153	145	168
2	137	160	148	173	163	190
1	143	175	158	192	177	215
0	190	233	211	259	239	294
00	222	267	245	294	275	331
000	280	341	305	372	339	413
0000	300	369	319	399	352	440
250	364	420	400	461	447	516
300	455	582	497	636	554	707
350	486	646	542	716	616	809
400	538	688	593	760	666	856
450	600	765	660	836	740	930
500	660	847	726	914	815	1004

- NOTES: (1) Allowable ampacities of copper conductors used with 15-minute motors shall be the 30-minute ratings increased by 12%.
- (2) For 5 or more simultaneously energized power conductors in raceway or cable the ampacity of each shall be reduced to 80% of that shown in the Table.
- (3) For conductors subject to ambient temperatures in excess of 30°C the derating factors in Table 5A shall apply to the ampacities shown in this Table.

TABLE 60

(See Rules 62-124, 62-216, 62-300, and 62-400)

**CONDITIONS FOR USE FOR HEATING CABLES AND HEATING
CABLE SETS**

Conditions of Use	Application	Heating Cable Set Type Designation
Dry Location Dry Location	Space Heating Systems Ceiling Floor embedded in Concrete	1A 1B*
Wet Location Wet Location Wet Location Wet Location Wet Location	Surface Heating Systems Soil Heating Snow Melting Animal Pens Pool Decks Roof De-icing	2A 2B 2C 2D 2E
Dry Location Wet Location Damp Location Wet Location	Pipe and Vessel Surface Heating Systems Pipe and Vessel Tracing (Fixed) Pipe and Vessel Tracing (Fixed) Pipe and Vessel Tracing (Fixed) Pipe Freeze Protection (Cord-connected)	3A 3B 3C 3D
Wet Location	Pipe Interior Heating Systems Heating Sets Installed in Metal Pipe, Tanks, etc.	4A
Wet Location	Heating Sets Installed in Thermoplastic Pipe, Tanks, etc.	4B

TABLE 61

(See Rule 68-056)

MINIMUM CONDUCTOR SEPARATION FROM POOLS

Type of Installation	Minimum Separation in Metres	
	Conductors Buried Directly in Earth	Conductors in Underground Raceways
Electrical Conductors		
0— 750 V	0.75	0.75
751—15 000 V	3.0	1.5
15 001—25 000 V	4.0	2.0

TABLE 62

(See Rule 38-010(4))

FEEDER DEMAND FACTORS FOR ELEVATORS

Number of Elevators on a Single Feeder	Demand Factors (DF)
1	1.00
2	0.95
3	0.90
4	0.85
5	0.82
6	0.79
7	0.77
8	0.75
9	0.73
10 or more	0.72

NOTE: Demand factors (DF) are based on 50% duty (i.e. half time load half time no load)

DIAGRAM I

(See Rules 26-700, 26-702, 26-746, 78-052, 78-102 and 82-012

CSA CONFIGURATIONS FOR NON-LOCKING RECEPTACLES

			15 AMPERE	20 AMPERE	30 AMPERE	50 AMPERE	60 AMPERE
			RECEPTACLE	RECEPTACLE	RECEPTACLE	RECEPTACLE	RECEPTACLE
2-POLE 3-WIRE GROUNDING	125 V	5	5-15R	5-20R	5-30R	5-50R	
	* 250 V	6	6-15R	6-20R	6-30R	6-50R	
	277 V AC	7	7-15R	7-20R	7-30R	7-50R	
	347 V AC	24	24-15R	24-20R	24-30R	24-50R	
3-POLE 4-WIRE GROUNDING	125/250 V	14	14-15R	14-20R	14-30R	14-50R	14-60R
	3∅ 250 V	15	15-15R	15-20R	15-30R	15-50R	15-60R

**For configurations 6-15R, 6-20R, 6-30R and 6-50R, Y denotes identified terminal when used on circuits derived from 3-phase, 4-wire 416-V circuits.*

DIAGRAM 2

(See Rules 12-020, 26-700, 78-052, 78-102, and 82-012)

CSA CONFIGURATIONS FOR LOCKING RECEPTACLES



















































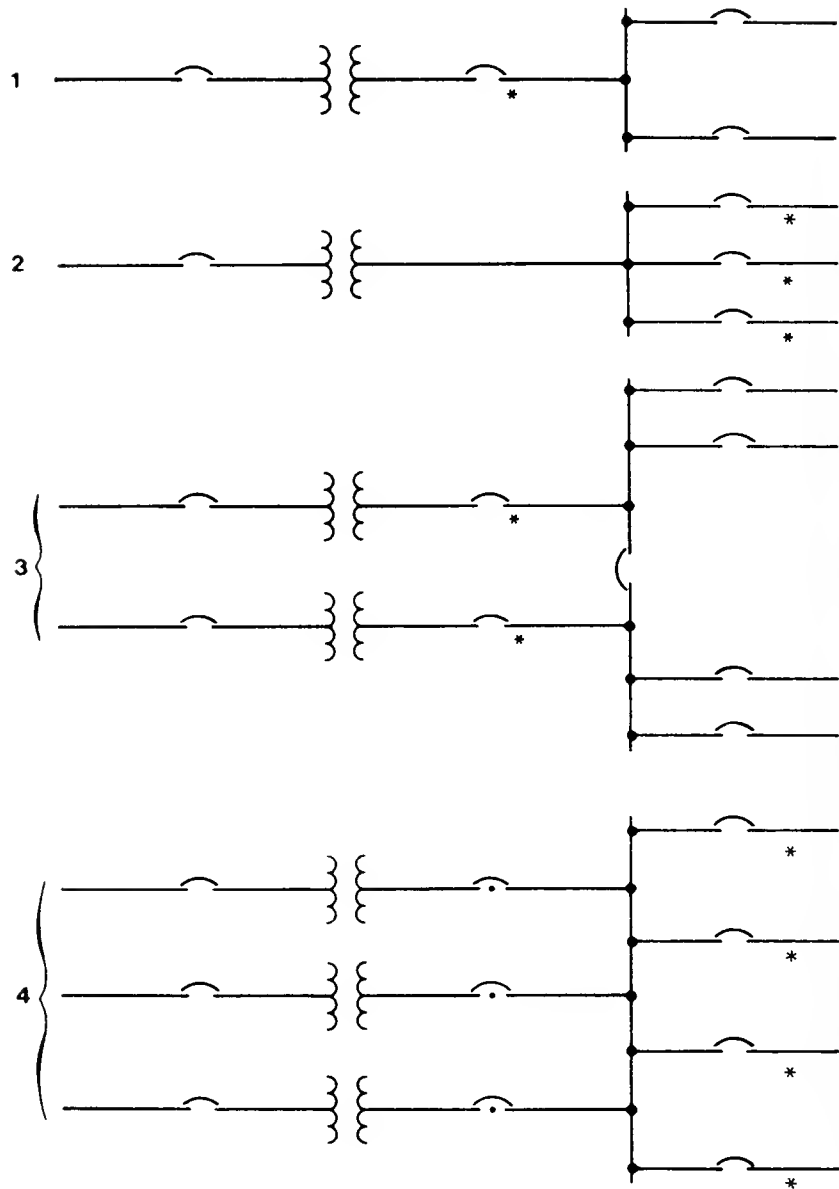
			15 AMPERE	20 AMPERE	30 AMPERE	50 AMPERE	60 AMPERE
			RECEPTACLE	RECEPTACLE	RECEPTACLE	RECEPTACLE	RECEPTACLE
2-POLE 3-WIRE GROUNDING	125 V	L5					
	250 V	L6					
	277 V AC	L7					
	480 V AC	L8					
	600 V AC	L9					
3-POLE 4-WIRE GROUNDING	125/250 V	L14					
	3Ø 250 V	L15					
	3Ø 480 V	L16					
	3Ø 600 V	L17					
4-POLE 5-WIRE GROUNDING	3Ø 208Y/120 V	L21					
	3Ø 480Y/277 V	L22					
	3Ø 600Y/347 V	L23					

DIAGRAM 3

(See Rule 14-102

ULTIMATE POINT OF CONDUCTOR DE-ENERGIZATION

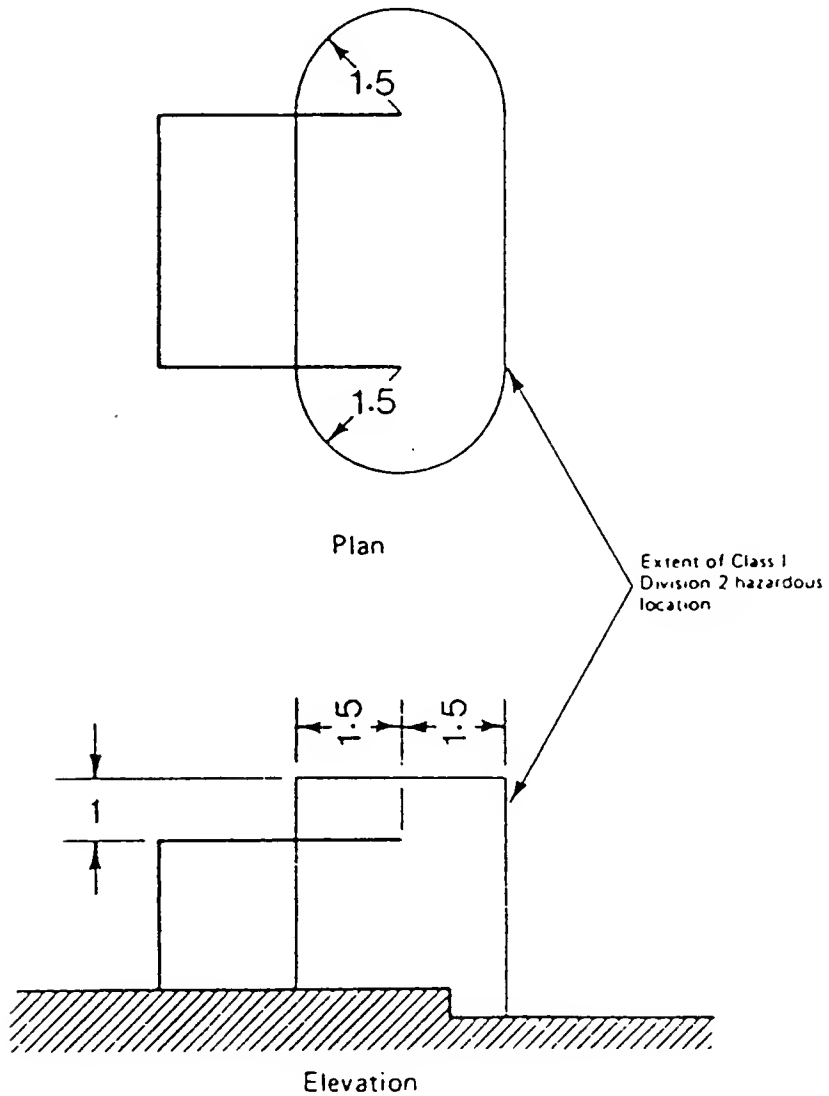


- NOTES: (1) The symbol \frown represents a circuit breaker, a combination of circuit breaker and fuses, or a fused switch.
 (2) The symbol $\frown \cdot$ represents a network protector which protects against reverse current.
 (3) An asterisk * indicates the ultimate point beyond which the downstream ungrounded circuit conductors must be de-energized in the event of a ground fault in the circuit fed by such conductors.

DIAGRAM 4

(See Rule 20-402(2))

**EXTENT OF HAZARDOUS LOCATION OPEN FACE
SPRAY BOOTHS VENTILATION SYSTEM INTERLOCKED**

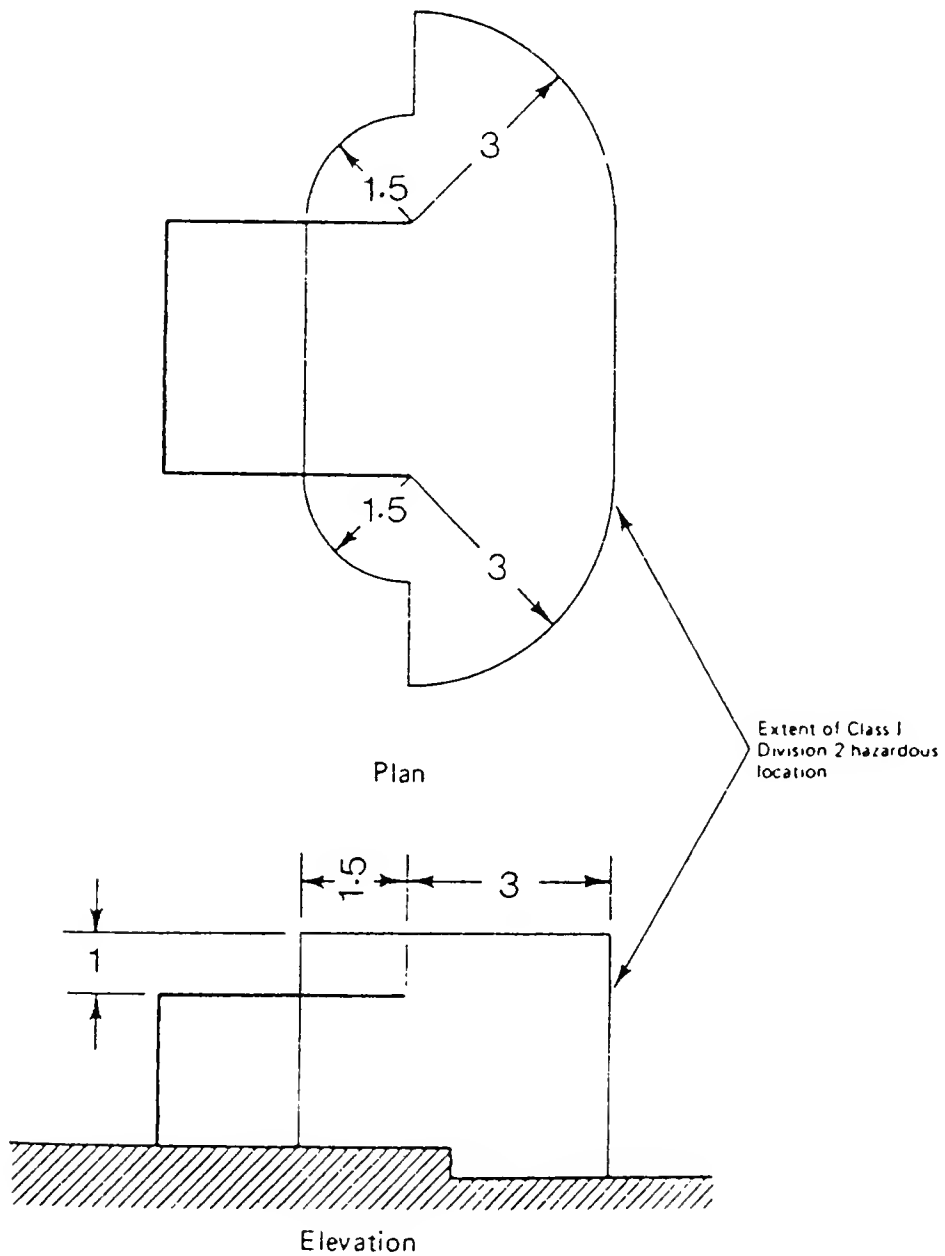


Note: All dimensions given are in metres.

DIAGRAM 5

(See Rule 20-402(2) (b))

**EXTENT OF HAZARDOUS LOCATION OPEN FACE
SPRAY BOOTHS VENTILATION SYSTEM NOT INTERLOCKED**



Note: All dimensions given are in metres.

TABLE 100

(SEE RULE 75-016)

POLE LIMITATIONS

MAXIMUM TRANSFORMER WEIGHT IN KILOGRAMS

POLE LENGTHS (METRES)	TRANSFORMER MOUNTING	POLE CLASS			
		2	3	4	5
12.5	Direct	-	1022	613	386
	Cluster	1771	1339	840	604
14.0	Direct	1249	749	498	318
	Cluster	1566	1067	766	545

TABLE 101

(SEE RULE 75-016)

MINIMUM CIRCUMFERENCE FROM BUTT END FOR EASTERN CEDAR

POLE LENGTH (METRES)	DISTANCE FROM BUTT END (MILLIMETRES)	MINIMUM CIRCUMFERENCE (MILLIMETRES)
9.5	1800	790
11.0	1800	850
12.5	1800	940

TABLE 102
(SEE RULE 75-020)
SETTING OF POLES

Pole Length (Metres)	Minimum Depth of Pole (Metres)
Column 1	Column 2
9.5	1.7
11.0	1.7
12.5	1.85
14.0	2.0
15.5	2.15

TABLE 103

(See Rule 75-060, 75-062)

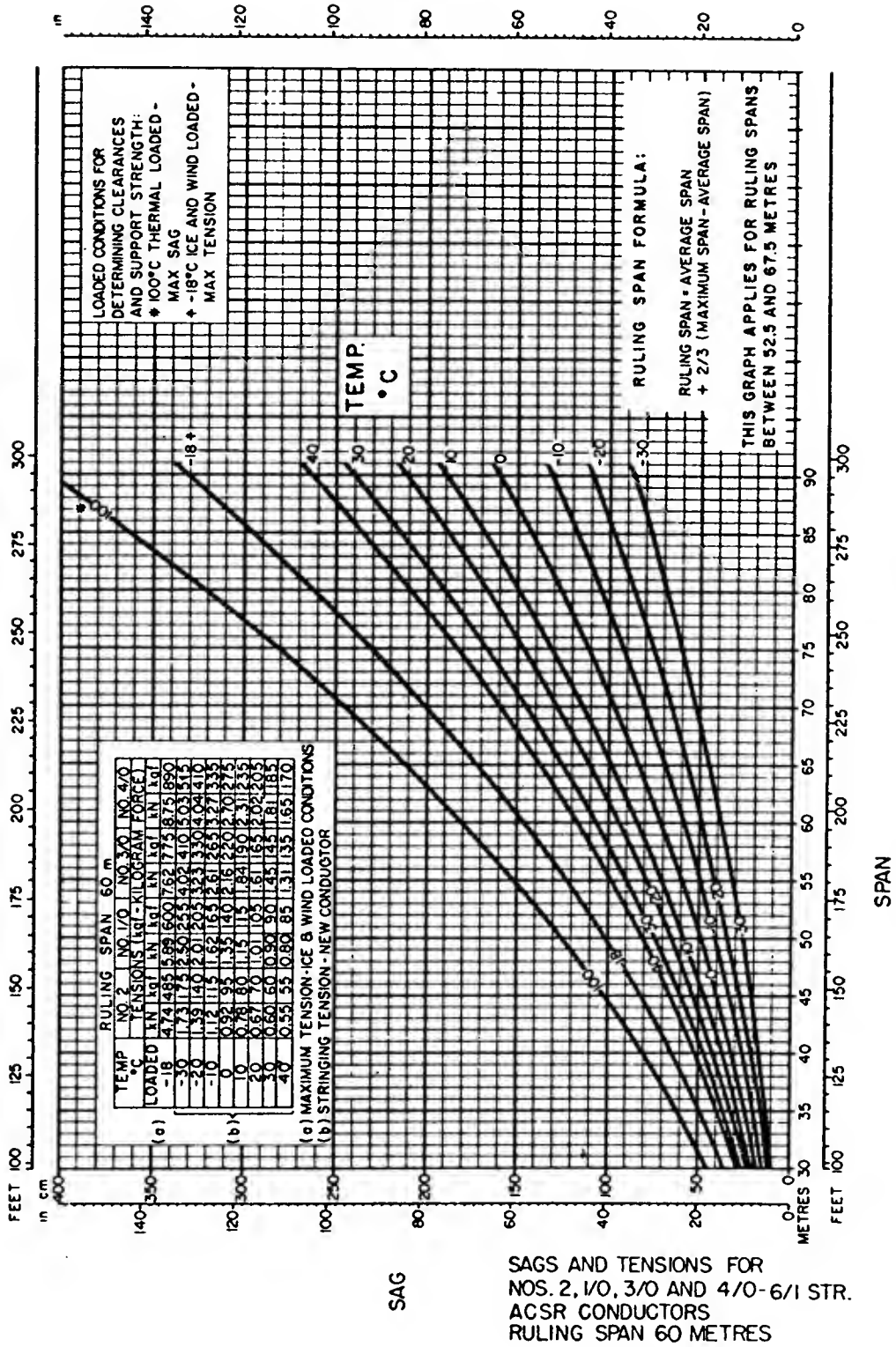
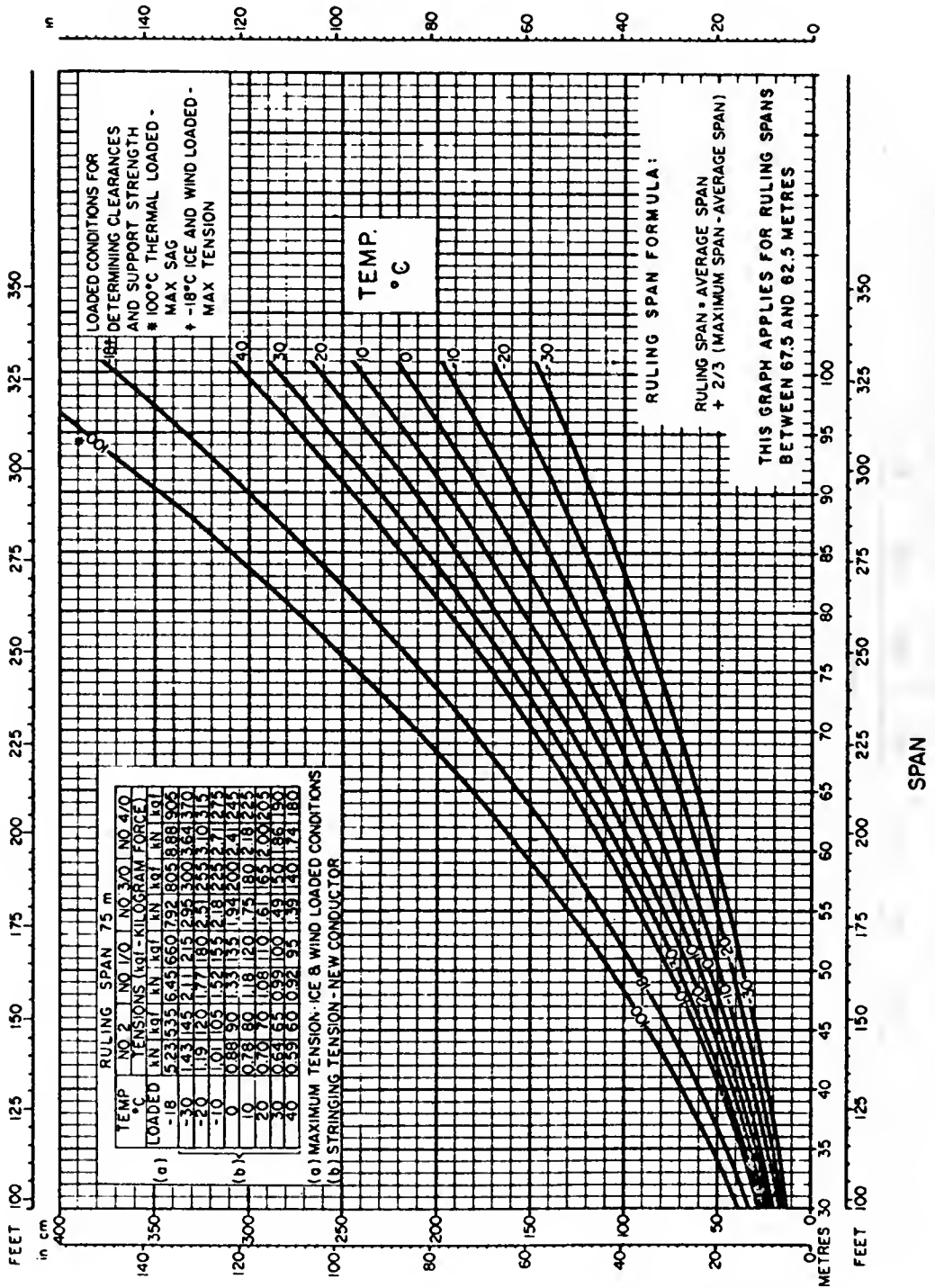


TABLE 104

(See Rule 75-060, 75-062)



SAG

SAGS AND TENSIONS FOR NOS. 2, 1/0, 3/0 AND 4/0-6/1 STR. ACSR CONDUCTORS RULING SPAN 75 METRES

TABLE 105

(See Rule 75-060, 75-062)

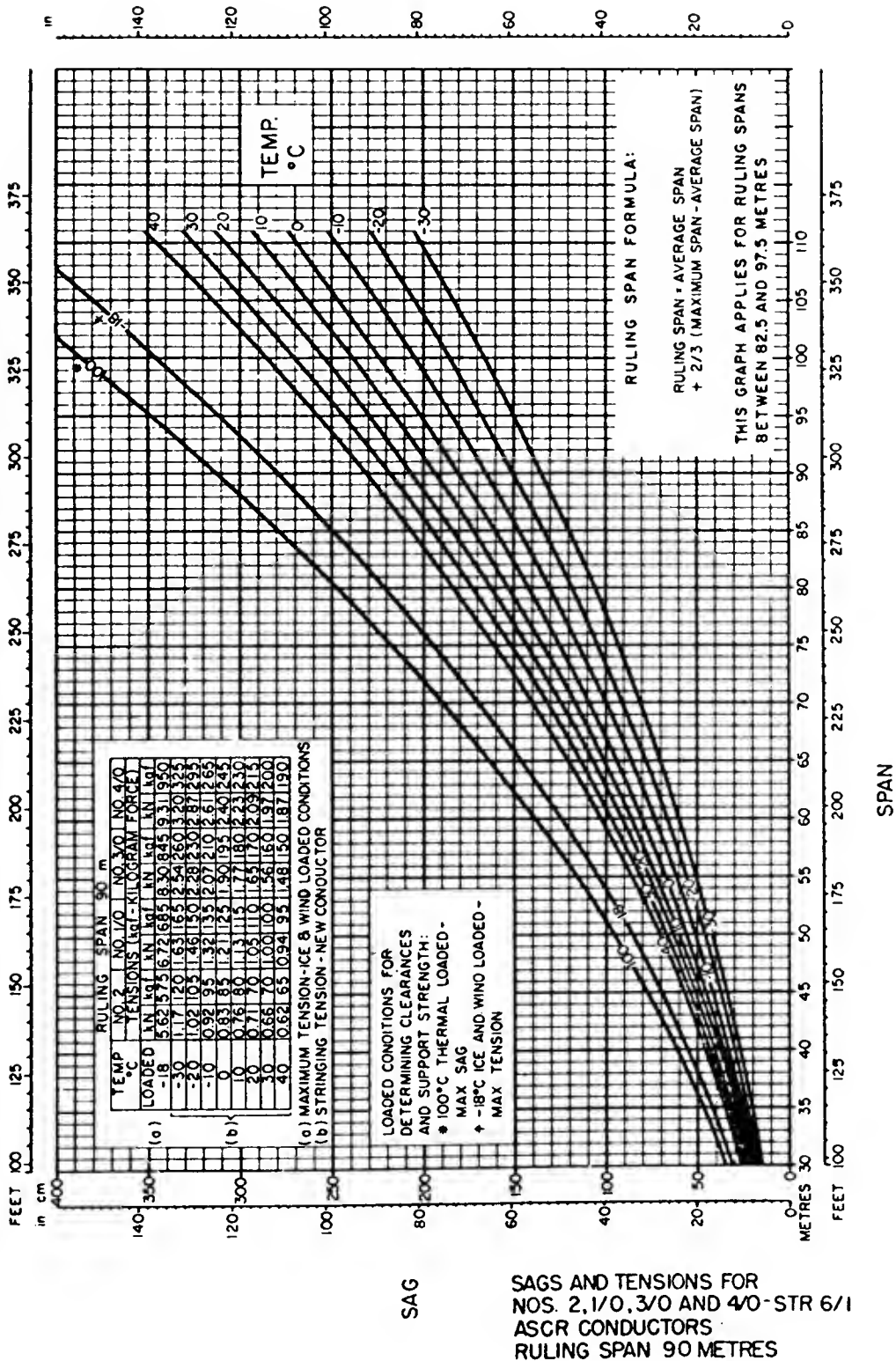


TABLE 106

(See Rule 75-060, 75-062)

SAG OF NEUTRAL SUPPORTED CABLE

(Ruling Span - 30.0 m)

Temp. °C	Triplex:			Triplex:			Triplex:													
	2-No. 4 Poly. AL.			2-No. 1/0 Poly. AL.			2-No. 3/0 Poly. AL.													
	1-No. 4 Bare ACSR			1-No. 1/0 Bare ACSR			1-No. 3/0 Bare ACSR													
Span in Metres (m)			Span in Metres (m)			Span in Metres (m)														
15	23	30	15	23	30	15	23	30												
Sag in Millimetres			Sag in Millimetres			Sag in Millimetres														
-29	127	279	508	787	203	432	762	1194	254	584	1016	1575	305	686	1194	1880	406	889	1600	2489
-18	152	330	559	838	203	457	813	1270	279	584	1041	1626	305	686	1219	1905	406	914	1626	2540
0	152	356	635	914	229	483	864	1346	279	610	1092	1702	305	711	1245	1956	406	940	1651	2591
16	178	406	711	1118	229	533	940	1473	279	635	1143	1778	330	711	1270	1981	432	940	1676	2616
32	203	432	762	1194	254	559	991	1549	305	660	1168	1829	330	737	1321	2057	432	965	1727	2692

Ruling span formula:

Ruling span = average span + 2/3 (maximum span - average span)

TABLE 107

(SEE RULE 75-110)

HAZARDOUS LOCATIONS

Type of Installation	Wiring	Switches	Motors	Fixtures
<u>Farms</u>				
Grain Grinders Rollers Hammer Mills Feed Mixing	As Required by Section 12 and/or Section 22	Dust-Tight	Totally Enclosed	Dust-Tight
<u>Commercial</u>				
Chopping Mills Feed Mixing Plants Flour Mills Alfalfa Grinding and Processing Mills Terminal Grain Elevators	Rigid Metallic Conduit, Mineral Insulated Cable or Aluminum Sheathed Cables as Required by Rule 18-202(1)	Class II, Group 'G'	Class II, Group 'G'	Class II, Group 'G'

TABLE 108

(SEE RULE 75-056)

SELECTION OF INSULATORS

(Specifications 35, 36, 37)

Line Voltage kV	Pin Type Insulator For Cross-Arm Framing	Post Type Insulator For Armless Framing		Clamp Top		Suspension Type Insulators			
		Tie Top	Vert. or Horiz.	Vert. or Horiz.	Horiz.	Porcelain or Glass	In-Span Live-Line Openers	Poly Meric (Epoxy)	
Up to 50 kV	See Specification 35	Vert.	Horiz.	Vert. or Horiz.	Horiz.	Angles switches and dead- ends on grounded steel	In-Span Live-Line Openers	Angles switches and dead- ends	In-Span Live-Line Openers
		See Spec. 36 Item 1	See Spec. 36 Item 1	See Spec. 36 Item 2(a) or 2(b)	See Spec. 36 Item 3	See Spec. 37 Item 1(a) or 1(b)	See Spec. 37 Item 2 or 1(b)	See Spec. 37 Item 1(a) or 1(b)	See Spec. 37 Item 2

TABLE 109

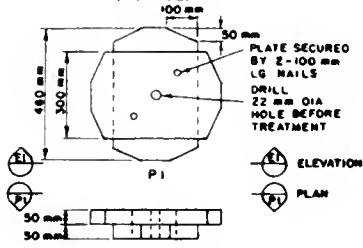
(SEE RULE 75-020)

DIMENSIONS FOR OFFSETTING POLES

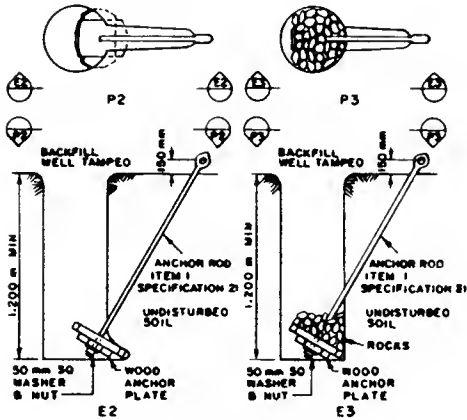
Pole Length (Metres)	Offset and Rake (Millimetres)
9.5	300
11.0	300
12.5	380
14.0	380
15.5	460
17.0	460
19.0	530
21.0	530
23.0	610
25.0	690
27.0	760

NOTE: No "Offset" or "Rake" is required for line deflection angles up to 5°.

**SPECIFICATION 1
(75-032)**

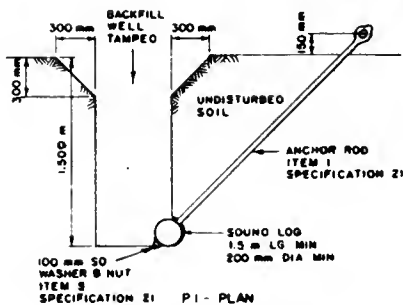
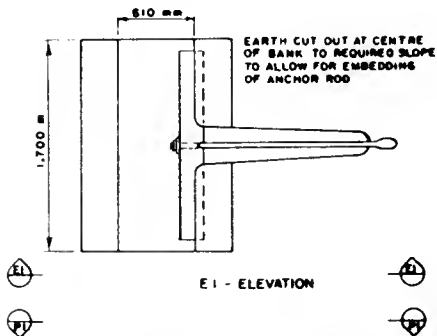


**E1
DETAIL OF WOOD ANCHOR PLATE**



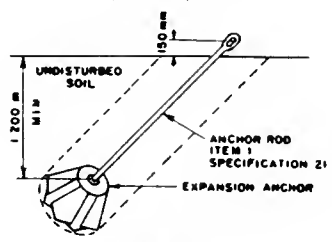
INSTALLATION OF WOOD ANCHOR

**SPECIFICATION 2
(75-032)**



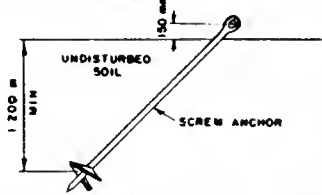
INSTALLATION OF ANCHOR LOG IN SOIL

**SPECIFICATION 3
(75-032)**



EXPANSION ANCHOR

- 1 LOCATE THE DESIRED SPOT FOR ANCHOR. BORE 210 mm AUGER HOLE AT THE ANGLE AND THE DEPTH REQUIRED.
- 2 SECURE ANCHOR ON ROD AND PUSH ROD TO THE FULL DEPTH OF THE HOLE.
- 3 TAMP WITH TAMPER BAR UNTIL ANCHOR IS FULLY EXPANDED.
- 4 PULL UP GUY WIRE BEFORE REFILLING THE HOLE.
- 5 BACKFILL WELL TAMPED

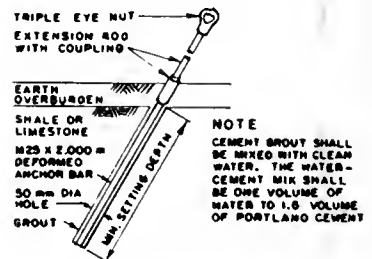


SCREW ANCHOR

- 1 REMOVE SOG FROM GROUND AT THE CORRECT LOCATION FOR ANCHOR ROD EYE.
- 2 INSERT A 1" BAR THROUGH EYE OF ROD AND LINE UP ROD WITH GUY.
- 3 TWO MEN BEAR DOWN ON ROD AND TURN IT INTO PLACE.
- 4 THIS ANCHOR MAY ALSO BE INSTALLED BY USING A SPECIAL "SCREW IN" TOOL.

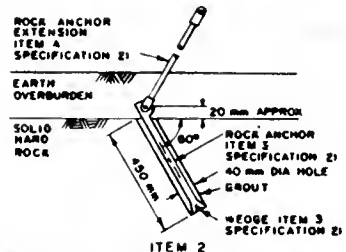
INSTALLATION OF EXPANSION & SCREW ANCHORS

**SPECIFICATION 4
(75-032)**



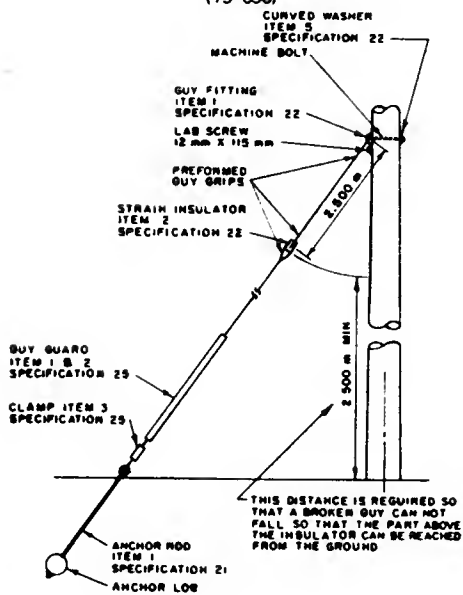
**ITEM 1
SHALE & LIMESTONE ANCHOR WITH EARTH OVERBURDEN**

TYPE OF ROCK	MIN DEPTH OF SETTING
SOUND MASSIVE LIMESTONE	1.000 m
THICKLY BEDDED LIMESTONE	1.250 m
THINLY BEDDED LIMESTONE	1.750 m
WEATHERED SHALE	2.000 m



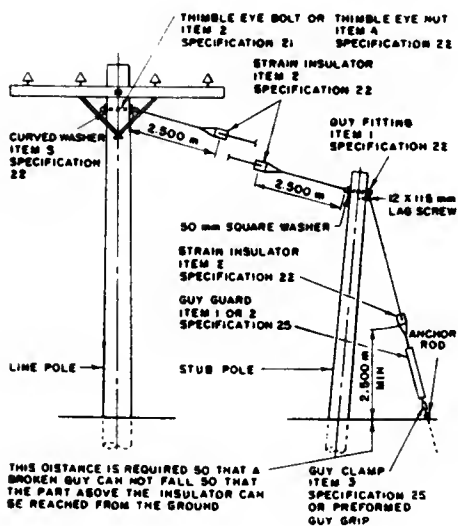
**ITEM 2
ROCK ANCHOR WITH EARTH OVERBURDEN
INSTALLATION OF SHALE, LIMESTONE & ROCK ANCHORS**

SPECIFICATION 5
(75-036)



STRAIN INSULATOR ON POLE GUYS

SPECIFICATION 6
(75-040)



SPAN GUY CONSTRUCTION

SPECIFICATION 7
(75-022)

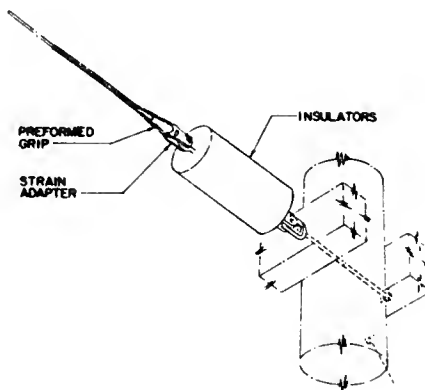


FIG-1

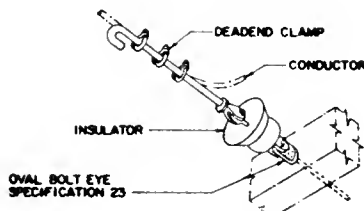


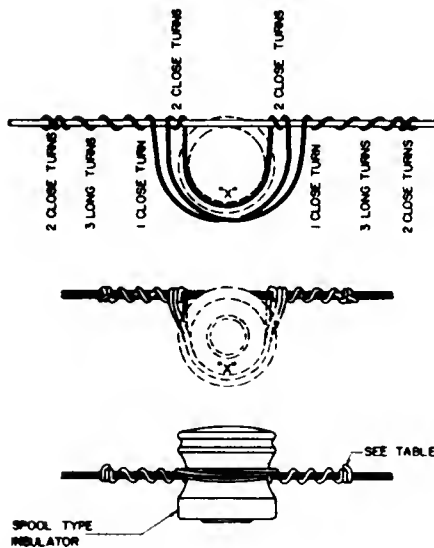
FIG-2

NOTES

1. THE INSULATOR IS OMITTED FOR THE NEUTRAL CONDUCTOR.
2. PREFORMED GRIPS ARE ACCEPTABLE.

PRIMARY POLE MOUNTED SUBASSEMBLIES

SPECIFICATION 8
(75-064)



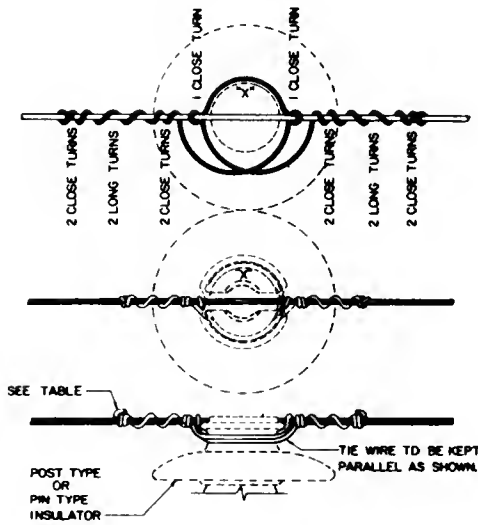
NOTE

START WITH CENTRE OF THE TIE WIRE AT "X":

LINE CONDUCTOR	TIE WIRE	TIE WIRE LENGTHS
NO. 2-8/1	NO. 4 AWG	1,170m
NO. 2-4/3, NO'S 1/0, 2/0, 3/0-6/1	S.D.A.L.	1,470m

LONG SPOOL TIE FOR ACSR CONDUCTORS 3/0 AWG AND SMALLER

SPECIFICATION 9
(75-064)

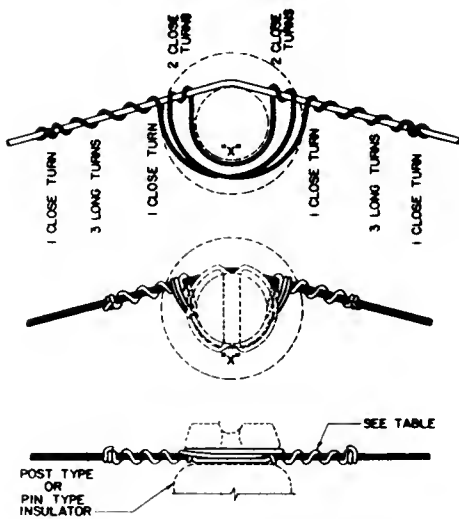


NOTE
START WITH CENTRE OF THE WIRE AT "X".

LINE CONDUCTOR	TIE WIRE	TIE WIRE LENGTHS	
		1 PIECE INSULATOR	2 PIECE INSULATOR
NO. 2-6/1	NO. 4 AWG	1.020 m	1.170 m
NO. 2-4/3, NO'S 1/0, 2/0, 3/0-6/1	S.D.AL.	1.320 m	1.470 m

LONG TOP TIE FOR ACSR CONDUCTORS 3/0 AWG AND SMALLER

SPECIFICATION 10
(75-064)

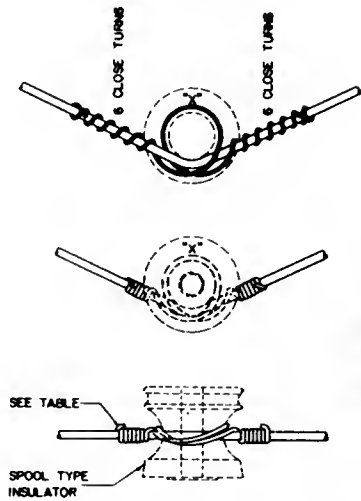


NOTE
START WITH CENTRE OF THE TIE WIRE AT "X".

LINE CONDUCTOR	TIE WIRE	TIE WIRE LENGTHS	
		1 PIECE INSULATOR	2 PIECE INSULATOR
NO. 2-6/1	NO. 4 AWG	1.170 m	1.470 m
NO. 2-4/3, NO'S 1/0, 2/0, 3/0-6/1	S.D.AL.	1.470 m	1.780 m

LONG SIDE TIE FOR ACSR CONDUCTORS 3/0 AWG AND SMALLER

SPECIFICATION 11
(75-064)

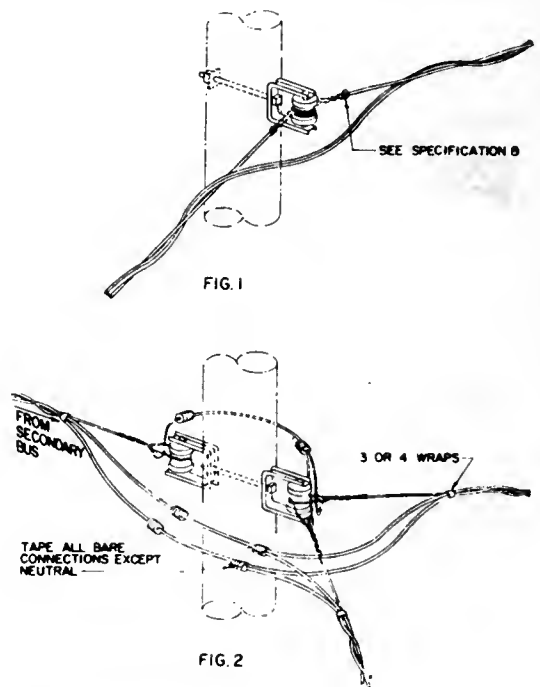


NOTE
START WITH CENTRE OF THE WIRE AT "X".

LINE CONDUCTOR	TIE WIRE	TIE WIRE LENGTHS
NO. 2 ACSR 6/1 B WP. AL	NO. 4 AWG S.D.AL.	1.020 m
NO. 1/0 ACSR 6/1 B WP. AL		1.020 m
NO. 3/0 WP. AL		1.170 m
NO. 4/0 WP. AL		1.320 m

SECONDARY SPOOL TIE FOR ALL WEATHERPROOF CONDUCTORS

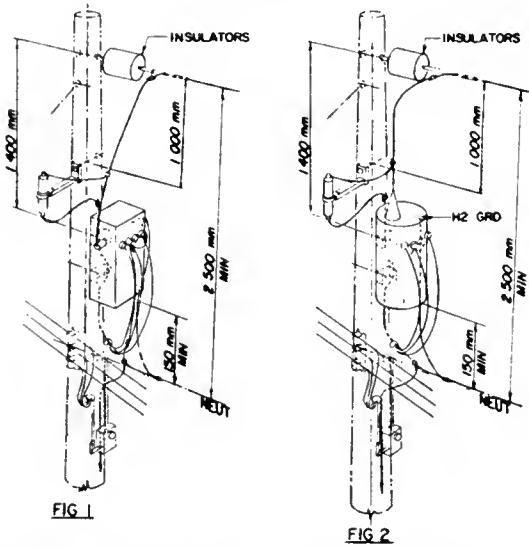
SPECIFICATION 12
(75-054, 066)



NOTE
COMPRESSION CONNECTORS SHALL BE USED WHERE REQUIRED BY RULE 75-066.

INSTALLATION OF NEUTRAL SUPPORTED CABLE

SPECIFICATION 17
(75-070)

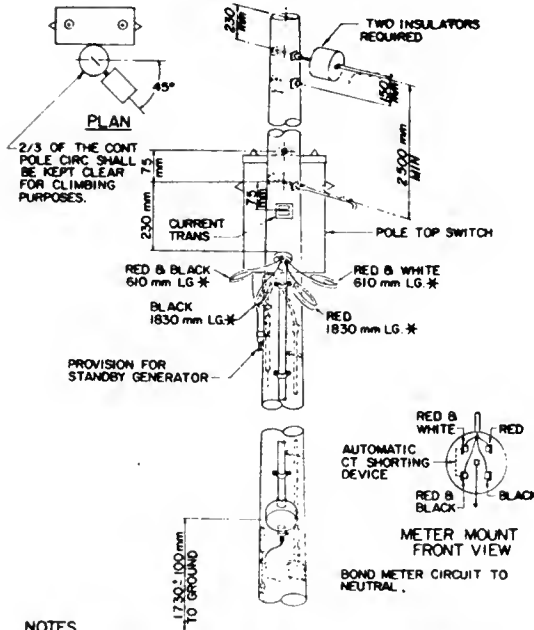


NOTES

1. SERVICE CONDUCTORS SHALL BE CONTINUOUS FROM TRANSFORMER BUSHING TO SERVICE CONDUIT.
2. THIS INSTALLATION REQUIRES A 12 METER (MIN) POLE.
3. COMPRESSION CONNECTORS SHALL BE USED ON ALL OVERHEAD CURRENT CARRYING CONNECTIONS.

TRANSFORMER INSTALLATION

SPECIFICATION 18
(75-070)

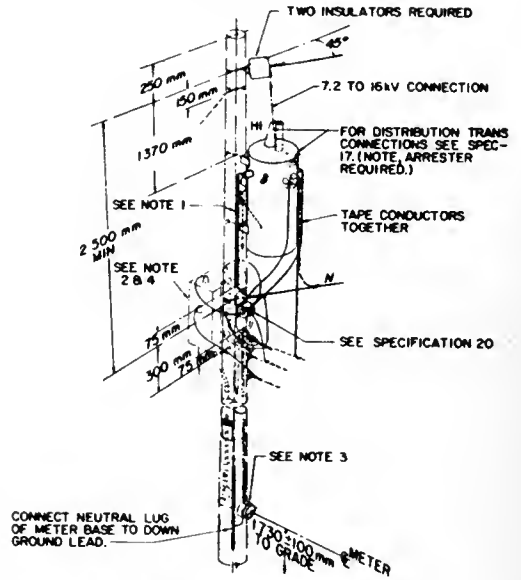


NOTES

1. STANDBY GENERATOR SHALL NOT BE CONNECTED TO WIRING SYSTEM EXCEPT THROUGH A DOUBLE-THROW SWITCH WHICH WILL PREVENT FEEDBACK ON THE SUPPLY AUTHORITY'S SYSTEM.
2. METER MOUNTS SHALL BE TYPE 'S' WITH AUTO BYPASS.
3. * MINIMUM LENGTH OUTSIDE CONDUIT.
4. COMPRESSION CONNECTORS SHALL BE USED ON ALL OVERHEAD CURRENT CARRYING CONNECTIONS.
5. CONDUCTORS FOR METERING ARE COPPER NO.12 TYPE TW-40°F OR TEW AND INSTALLED IN 3/4" RIGID CONDUIT.

CUSTOMER POLE FRAMING CENTRAL METERING

SPECIFICATION 19
(75-070,-104)

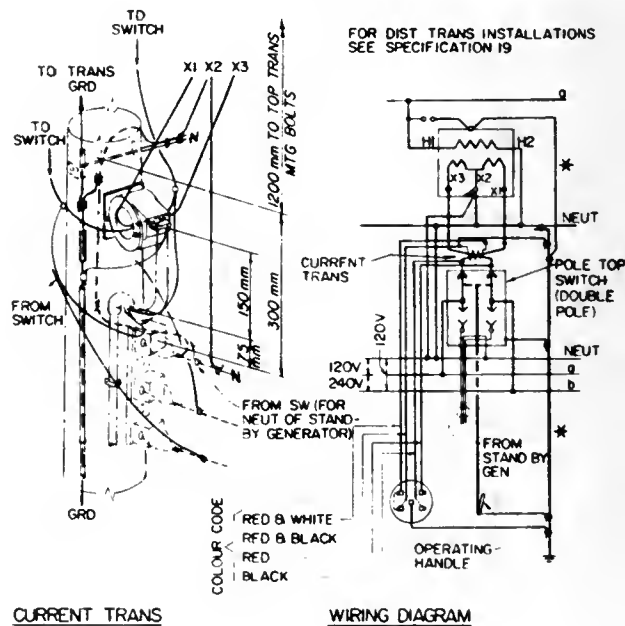


NOTES

1. CONTINUOUS FROM SYSTEM NEUTRAL TO GROUND ELECTRODE.
2. POLE TOP SWITCH MAY HAVE PROVISION FOR STANDBY GENERATOR.
3. "S" METER BASE MUST HAVE AUTOMATIC SHORTING DEVICE.
4. GROUND POLE TOP SWITCH TO GROUND BUS WITH NO.4 AWG COPPER.
5. COMPRESSION CONNECTORS SHALL BE USED ON ALL OVERHEAD CURRENT CARRYING CONNECTIONS.

C.M.S. TRANSFORMER INSTALLATION WITH POLE TOP SWITCH CUSTOMERS POLE SINGLE PHASE 2.4 TO 16kV

SPECIFICATION 20
(75-070)



CURRENT TRANS

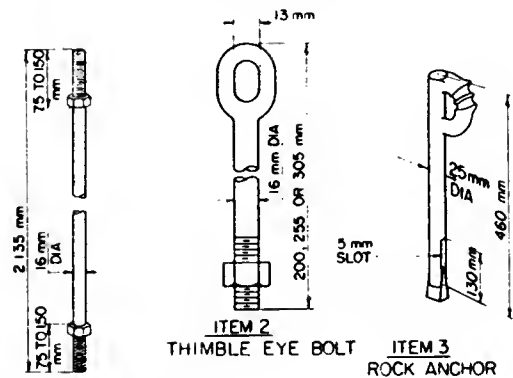
WIRING DIAGRAM

LEGEND

- • LV POLARITY MARKS (•) OR X1
- • HV POLARITY MARKS (•) OR H1
- * CONTINUOUS LEADS

CT. LOCATION & WIRING DIAGRAM CENTRAL METERING TRANSFORMER INSTALLATION CUSTOMERS POLE

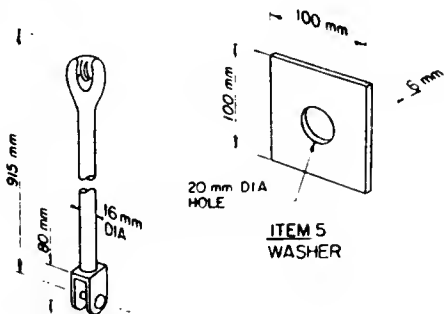
SPECIFICATION 21
(SPEC 2,3,4,5 & 6)



ITEM 1
SINGLE ANCHOR ROD

ITEM 2
THIMBLE EYE BOLT

ITEM 3
ROCK ANCHOR

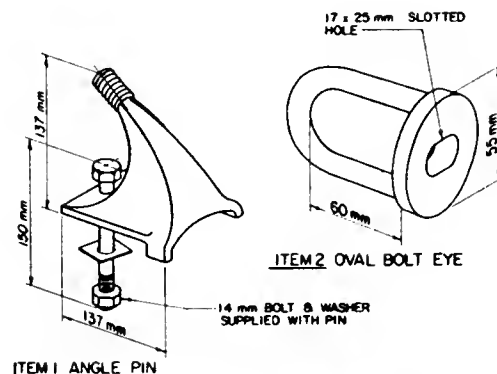


ITEM 4
ROCK ANCHOR EXTENSION

ITEM 5
WASHER

MATERIAL

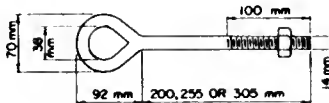
SPECIFICATION 23
(75-022)



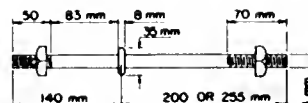
ITEM 1 ANGLE PIN

ITEM 2 OVAL BOLT EYE

14 mm BOLT & WASHER
SUPPLIED WITH PIN



ITEM 3 BOLT EYE

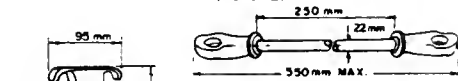


ITEM 4 SPOOL BOLT

MATERIAL

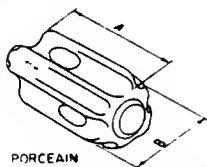
SPECIFICATION 24
(75-056)

SPECIFICATION 22
(SPEC 5 & 6)
(75-042)



ITEM 1
GUY FITTING

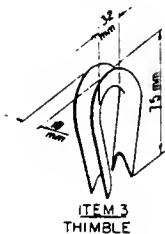
POLYMERIC



PORCEAIN

DIM	15 kV	46 kV
A	115 mm	170 mm
B	73 mm	90 mm

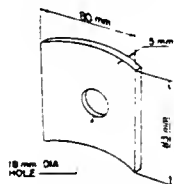
ITEM 2
STRAIN INSULATOR



ITEM 3
THIMBLE

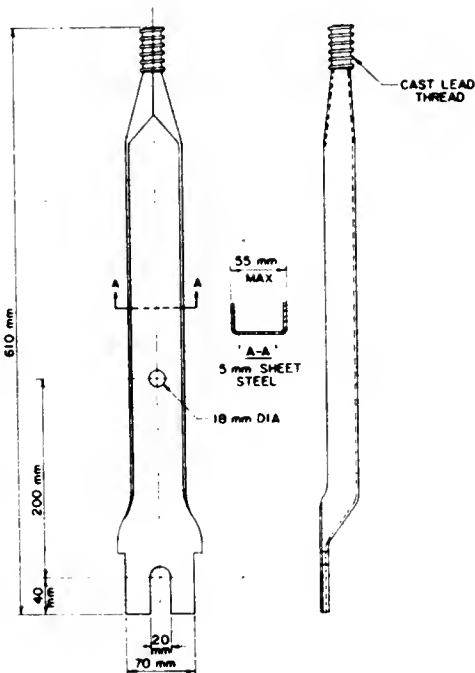


ITEM 4
THIMBLE EYE NUT



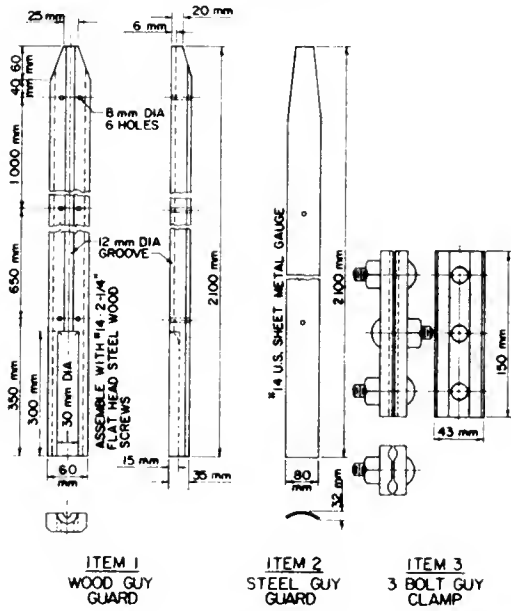
ITEM 5
CURVED WASHER

MATERIAL



POLE TOP PIN

SPECIFICATION 25
(SPECIFICATIONS 5 & 6)

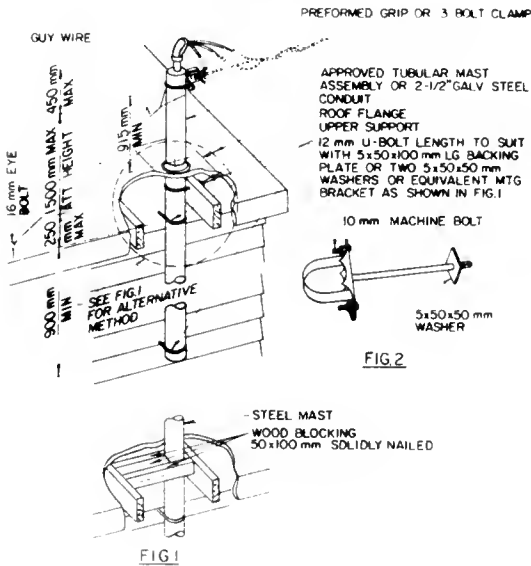


NOTE

AS AN ALTERNATIVE, PREFORMED GUY GRIPS AND/OR PLASTIC GUY GUARDS MAY BE USED.

GUY GUARDS

SPECIFICATION 26
(75-066,-042)

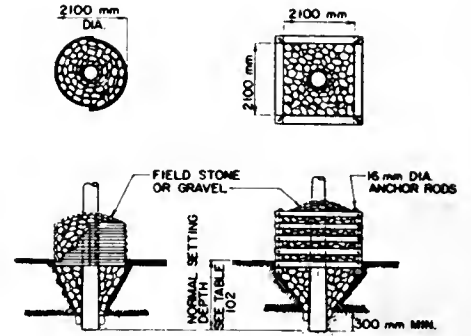


NOTES

1. ALL HARDWARE TO BE HOT DIPPED GALVANIZED STEEL.
2. WHERE THE MAXIMUM ATTACHMENT HEIGHT EXCEEDS 1,500 mm, THEN GUYING MUST BE EMPLOYED TO CONNECT TO EYE BOLT FASTENED TO BUILDING STRUCTURAL MEMBER.
3. COMPRESSION CONNECTORS SHALL BE USED WHERE REQUIRED.

SERVICE MAST INSTALLATION

SPECIFICATION 27
(75-020)

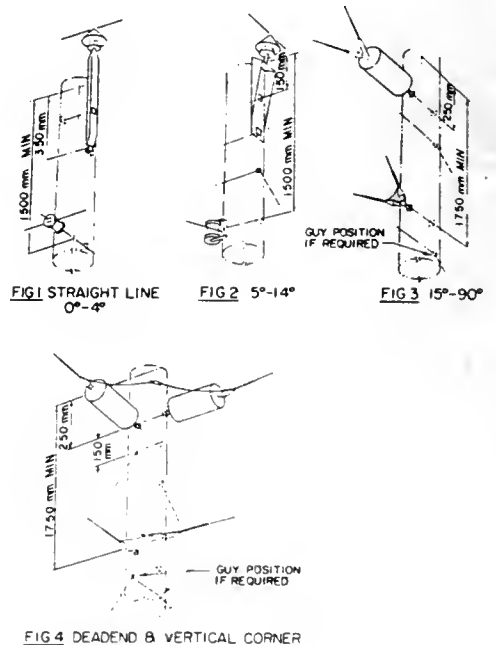


NOTES

1. CORRUGATED GALVANIZED STEEL CRIBBING SHALL BE 14 GAUGE, OR THICKER.
2. TIMBERS SHALL BE WESTERN CEDAR OR PRESSURE TREATED PINE.
3. FOR CORNER FASTENING USE 16 mm DIA. GALVANIZED ANCHOR RODS.
4. DEPTH OF POLE FOR VARIOUS POLE LENGTHS SHALL BE AS STATED IN TABLE 102.
5. HEIGHT OF CRIB WILL VARY WITH POLE HEIGHT. MINIMUM HEIGHT OF CURB SHALL BE 600 mm.

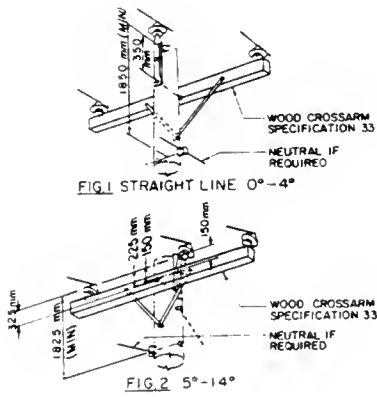
CRIBBING OF POLES

SPECIFICATION 28
(75-022)



PRIMARY 10.16KV MAX VERTICAL

SPECIFICATION 29
(75-022)

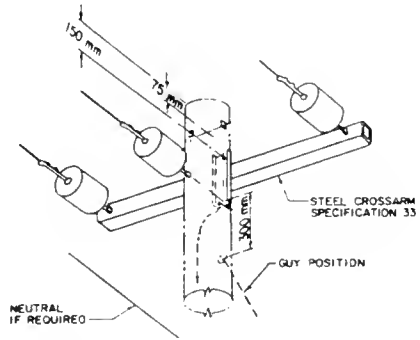


NOTE

ON 44 kV THE MAXIMUM SPAN SHALL BE 75 METERS.

PRIMARY 3 Ø 50kV MAX CROSSARM

SPECIFICATION 31
(75-022)

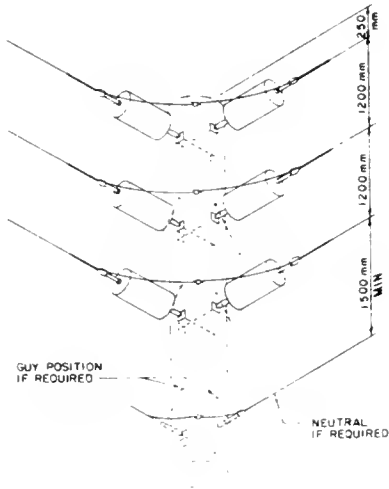


NOTES

1. DEADEND 1360 kg MAXIMUM TENSION
2. MAXIMUM SPAN FOR CROSSARM DEADEND SHALL BE 75 METRES.

PRIMARY 3 Ø 50kV MAXIMUM CROSSARM DEADEND

SPECIFICATION 30
(75-022)



NOTE

MAXIMUM SPAN FOR VERTICAL DEADEND AND VERTICAL CORNER SHALL BE 75 METERS

PRIMARY 3 Ø 50kV MAXIMUM VERTICAL DEADEND AND VERTICAL CORNER

SPECIFICATION 31A
(75-022)

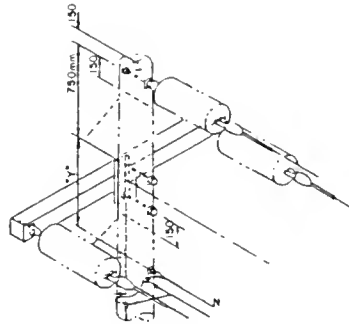


FIG 1

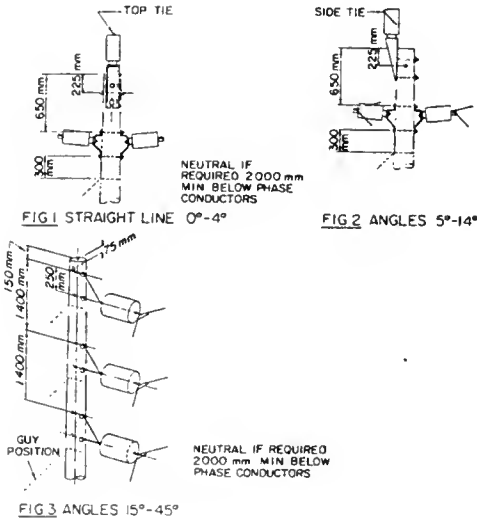
SYSTEM VOLTAGE	Y ¹ MIN (mm)
24 / 4.16 kV	700
8 / 13.8 kV	
14.4 / 24.9 kV	1150
16 / 27.6 kV	
44 kV	N/A

NOTES

- a) MAXIMUM CONDUCTOR TENSION 1362 kg (13.4 kN)
- b) MAXIMUM SPAN 75 m
- c) NOT TO BE USED WHERE EQUIPMENT EG TRANSFORMER IS REQUIRED ON SAME POLE.

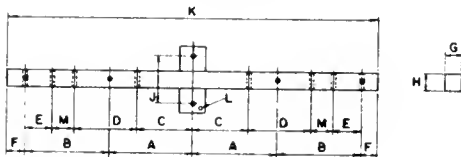
PRIMARY 3 Ø, 2.4/4.16 TO 16/27.6 kV
DEADEND
ARMLESS

SPECIFICATION 32
(75-022)



PRIMARY 3 Ø, 50KV MAXIMUM ARMLESS
(IMPROVED APPEARANCE)

SPECIFICATION 33
(75-048)

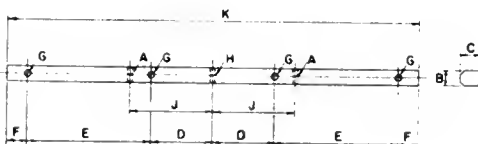


ITEM-1
HOLLOW STEEL CROSSARM
WITH WELDED STEEL END PLATES

WEIGHT	K	A	B	C	D	E	F	G	H	J	L	M	MAX LOAD PER COND
67.13kg	2896	945	457	610	533	127	78	102	102	254	11	102	358kg/force

NOTES

- 1) ALL DIMENSIONS ARE IN MILLIMETERS.
- 2) ALL HOLES UNLESS SPECIFIED IN CHART ABOVE ARE 22mm DIA.
- 3) ALL HOLES ARE LOCATED IN THE CENTRE OF FACE IN WHICH THEY ARE DRILLED EXCEPTING 11mm DIA GROUND CONNECTOR HOLE.



ITEM-2
WOOD CROSSARM

K	A	B	C	D	E	F	G	H	J
3000	10	95	121	457	915	128	18	22	559

NOTE

ALL HOLES TO BE IN CENTRE OF FACE IN WHICH THEY ARE BORED.

STEEL AND WOOD CROSSARMS

SPECIFICATION 34
(75-042)

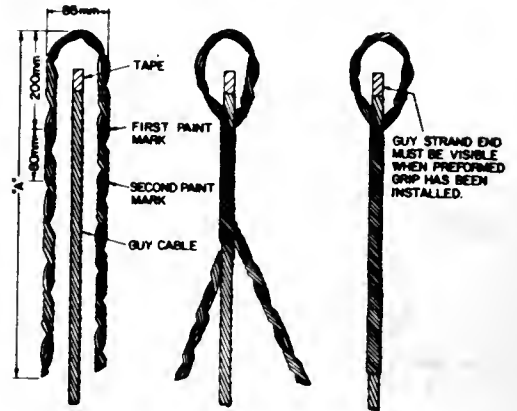


FIG 1

START TO WRAP ONE LEG OF GRIP AROUND GUY CABLE MAKE 3 COMPLETE TURNS AND REPEAT PROCEDURE WITH OTHER LEG.

FIG 2

WITH END OF GRIP IN EACH HAND TWIST LEGS OF GRIP AROUND CABLE AS FAR AS POSSIBLE.

FIG 3

TO COMPLETE, FOLD GUY GRIP STRAND UNDER, USING SCREW DRIVER TO MAKE LAST WRAP SNAP INTO POSITION.

NOTES

1. FOR 8mm GUY "A" = 760mm.
2. FOR 11mm GUY "A" = 890mm.
3. WHEN USING PREFORMED GUY GRIPS WITH GUY FITTINGS, START WRAP AT FIRST PAINT MARK. WHEN USED WITH STRAIN INSULATORS - START AT SECOND PAINT MARK.
4. PREFORMED GUY GRIPS MAY BE REMOVED AND RE-INSTALLED ONCE.

METHOD OF INSTALLING
PREFORMED GUY GRIPS

SPECIFICATION 35
(TABLE 108)

LINE VOLTAGE KV	
PRIMARY (FOUR WIRE SYSTEMS)	<p>LONG TOP TIE SPECIFICATION 9 LONG SIDE TIE SPECIFICATION 10</p> <p>PRIMARY</p>
2.4/4.16 TO 4.8/8.32 7.2/12.47 8/13.6	
14.4/24.9 16/27.6	<p>LONG TOP TIE SPECIFICATION 9 LONG SIDE TIE SPECIFICATION 10</p> <p>PRIMARY</p>
SUBTRANSMISSION (THREE WIRE SYSTEMS)	<p>LONG TOP TIE SPECIFICATION 9 LONG SIDE TIE SPECIFICATION 10</p> <p>SUBTRANSMISSION</p>
27.6 (INC 13.8) 44	

TYPICAL PIN TYPE INSULATOR ASSEMBLIES

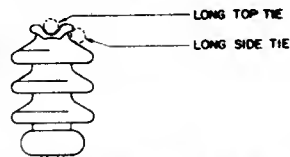
SPECIFICATION 36
(TABLE 108)

LINE VOLTAGE 'kV'

PRIMARY
(FOUR WIRE SYSTEMS)
2.4/4.16 TO 4.8/8.32
7.2/12.47
8/13.8
14.4/24.9
16/27.6


SUBTRANSMISSION
(THREE WIRE SYSTEMS)
27.6 (INCL 13.8)
44

TIE TOP-VERTICAL & HORIZONTAL

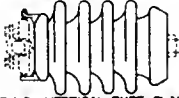


ITEM-1 VERTICAL TYPE INSULATOR FOR VERT MTG POSITION TO BE USED WITH TOP OR SIDE TIE. HORIZ MTG POSITION TO BE USED WITH SIDE TIE. SUITABLE FOR TANGENT AND ANGLES 0°-15°.

CLAMP TOP-VERTICAL OR HORIZONTAL




ITEM-2a VERTICAL TYPE. CLAMP TOP INSULATOR IN VERT MTG POSITION FOR TANGENT AND ANGLES 0°-15°.



ITEM-2b VERTICAL TYPE. CLAMP TOP INSULATOR IN HORIZ MTG POSITION FOR ANGLES 16°-45°.


CLAMP TOP-HORIZONTAL



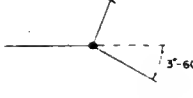
ITEM-3 HORIZONTAL TYPE. CLAMP TOP INSULATOR IN HORIZ MTG POSITION FOR TANGENT AND ANGLES 0°-15°.

TYPICAL POST TYPE INSULATOR ASS'YS

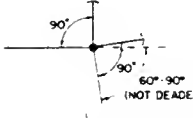
SPECIFICATION 38
(75-038)



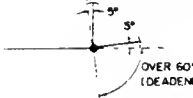
1. FROM 0° TO 3°
STORM GUYS SHALL BE USED WHERE SPECIFIED, AS SHOWN IN SKETCH




2. FROM 3° TO 60°
SHALL BE PLACED SO THAT THE ANGLE IS BISECTED AS SHOWN IN SKETCH. THIS SHALL APPLY REGARDLESS OF NUMBER OF GUYS USED



3. FROM 60° TO 90° (CONDUCTORS NOT DEADENDED)
GUYS SHALL BE PLACED AT 90° TO EACH LINE SECTION AS SHOWN IN SKETCH



4. OVER 60° (CONDUCTORS DEADENDED)
GUYS SHALL BE PLACED AS SHOWN IN SKETCH.




5. OVER 90°
GUYS SHALL BE PLACED AS SHOWN IN SKETCH.

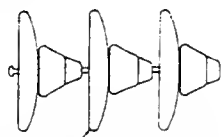
NOTE
a) THESE METHODS MAY HAVE TO BE ALTERED TO SUIT LOCAL CONDITIONS.

ARRANGEMENT OF GUYS 0-50kV


SPECIFICATION 37
(TABLE 108)



ITEM 1a
WET-PROCESS PORCELAIN OR TOUGHENED-GLASS INSULATORS



ITEM 1b
WET-PROCESS PORCELAIN OR TOUGHENED-GLASS INSULATORS



ITEM 2
POLYMERIC (EPOXY) INSULATORS

APPLICATION OF PORCELAIN OR GLASS SUSPENSION-TYPE INSULATORS
-NUMBER REQUIRED-

SYSTEM	ANGLES, SWITCHES AND DEADENDS		IN-SPAN LIVE-LINE OPENERS	FLOATING DEADENDS
	WOOD	STEEL		
PRIMARY (4 WIRE) UP TO 8/13.8 kV	ITEM 1a 2 REQ'D	ITEM 1a 3 REQ'D	ITEM 1a 4 REQ'D	ITEM 1a 4 REQ'D
14.4/24.9 kV AND 16/27.6 kV	IT 1a OR 1b 3 REQ'D	IT.1a OR 1b 4 REQ'D	ITEM 1b 4 REQ'D	ITEM 1a 6 REQ'D
SUBTRANSMISSION (3 WIRE) 27.6 AND 44 kV	ITEM 1b 4 REQ'D	ITEM 1b 4 REQ'D	ITEM 1b 4 REQ'D	N/A

APPLICATION OF POLYMERIC (EPOXY) SUSPENSION-TYPE INSULATORS
-NUMBER AND SIZE OF INSULATORS REQUIRED PER PHASE-

APPLICATION	VOLTAGE LEVEL (PHASE-PHASE)		
	UP TO 15kV	25 a 27.6kV-4-WIRE	27.6 a 44kV-3-WIRE
DEAD-ENDS, ANGLES, SWITCHES (15kV)	ITEM 2 1 REQ'D	ITEM 2 1 REQ'D (25kV)	ITEM 2 1 REQ'D (35kV)
IN-SPAN LIVE LINE OPENERS	ITEM 2 1 REQ'D (25 kV)	ITEM 2 1 REQ'D (35kV)	ITEM 2 2 REQ'D (25kV)
FLOATING DEAD-ENDS	ITEM 2 1 REQ'D (25 kV)	ITEM 2 1 REQ'D (35kV)	ITEM 2 2 REQ'D (25kV)

TYPICAL SUSPENSION-TYPE INSULATOR STRAIN ASSEMBLIES

SECTION 85—REVOCATION

85-000 Ontario Regulation 183/84 is revoked.

COMMENCEMENT

85-002(1) This Regulation comes into force on the 4th day of March, 1991.

(2) Notwithstanding the revocation of Ontario Regulation 183/84, an electrical installation or work on an electrical installation or part thereof may be continued to be carried out under that regulation on or after the 4th day of March, 1991, if,

- (a) an application for inspection is made before the 15th day of April, 1991; and
- (b) notice is provided to the inspection department before the 15th day of April, 1991, that the applicant is carrying out the electrical installation or work under that regulation.

ONTARIO HYDRO

R. C. FRANKLIN,
Chairperson

L. E. LEONOFF,
Secretary

Dated at Toronto, this 15th day of October, 1990.

Publications under the Regulations Act

Publications en vertu de la Loi sur les règlements

1991—02—16

LIMITED PARTNERSHIPS ACT

O. Reg. 11/91.

General.

Made—January 21st, 1991.

Filed—January 22nd, 1991.

REGULATION TO AMEND REGULATION 578 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE LIMITED PARTNERSHIPS ACT

1.—(1) Subsections 1 (1), (2) and (3) of Regulation 578 of Revised Regulations of Ontario, 1980, as remade by section I of Ontario Regulation 443/82, are revoked and the following substituted:

(1) A declaration, a declaration of change and a declaration of dissolution or withdrawal shall be in a form provided or approved by the Minister of Consumer and Commercial Relations. O. Reg. 11/91, s. I (1), *part*.

(2) Subsection 1 (5) of the Regulation is revoked.

2. The Regulation is amended by adding the following sections:

1a. A declaration filed under subsection 3 (2) or 24 (1) of the Act shall set out the following information:

1. The firm name under which the limited partnership is to be conducted.
2. The general nature of the business of the limited partnership.
3. For each general partner who is an individual, the partner's surname, the given name by which the partner is commonly known, the first letters of the partner's other given names and the partner's residential address or address for service, including municipality, street and number, if any, and postal code.
4. For each general partner that is not an individual, the partner's name and address or address for service, including municipality, street and number, if any, and postal code, and the partner's Ontario corporation number, if any.
5. The address of the limited partnership's principal place of business in Ontario, including municipality, street and number, if any, and postal code, and the mailing address of the limited partnership. O. Reg. 11/91, s. 2, *part*.

3a. A record of limited partners required by subsection 3a (1) or 24a (1) of the Act shall set out the following information for each limited partner:

1. If the partner is an individual, the partner's surname, the given name by which the partner is commonly known, the first letters of the partner's other given names and the partner's residential address or address for service, including municipality, street and number, if any, and postal code.

2. If the partner is not an individual, the partner's name and address or address for service, including municipality, street and number, if any, and postal code, and the partner's Ontario corporation number, if any.
3. The amount of money and the value of other property contributed or to be contributed by the partner to the limited partnership. O. Reg. 11/91, s. 2, *part*.

3.—(1) Forms 1, 2 and 3 of the Regulation are revoked.

(2) Forms 1A, 2A and 3A of the Regulation, as made by section 2 of Ontario Regulation 443/82, are revoked.

4. This Regulation comes into force on the day section 5 of the *Business Information Statute Law Amendment Act, 1989* comes into force.

7/91

CORPORATIONS INFORMATION ACT

O. Reg. 12/91.

General.

Made—January 21st, 1991.

Filed—January 22nd, 1991.

REGULATION TO AMEND REGULATION 189 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE CORPORATIONS INFORMATION ACT

1. Section 1 of Regulation 189 of Revised Regulations of Ontario, 1980 is revoked and the following substituted:

1.—(1) An initial notice, a notice of change and a notice required under section 5 of the Act shall be in a form provided or approved by the Minister.

(2) The information required to be set out in a notice mentioned in subsection (1) shall be typewritten or machine-printed. O. Reg. 12/91, s. 1, *part*.

1a. An initial notice under subsection 3 (1) of the Act shall set out the following information in respect of a corporation:

1. The name of the corporation.
2. The Ontario corporation number of the corporation.
3. The date of its incorporation, continuation or amalgamation, whichever is the most recent.
4. The names and residential addresses of the corporation's directors, including municipality, street and number, if any, and postal code.
5. The date on which each director became a director and, where applicable, the date on which a director ceased to be a director.
6. If the corporation is a corporation with share capital, a statement as to whether each director is or is not a resident Canadian.

7. The names and residential addresses, including municipality, street and number, if any, and postal code, of the corporation's president, secretary, treasurer and general manager, or the holders of any equivalent offices.
8. The date on which each person referred to in paragraph 7 became an officer, and, where applicable, the date on which an officer ceased to be an officer.
9. The address of the corporation's head or registered office and, if different from the head or registered office, its principal place of business in Ontario, including municipality, street and number, if any, and postal code, in each case. O. Reg. 12/91, s. 1, *part*.

2. Section 2 of the Regulation, as remade by section 1 of Ontario Regulation 231/85, is revoked and the following substituted:

2. An initial notice under subsection 4 (1) of the Act shall set out the following information in respect of an extra-provincial corporation:

1. The name of the corporation.
2. The Ontario corporation number of the corporation.
3. The date of its incorporation, continuation or amalgamation, whichever is the most recent.
4. The name of the jurisdiction in which the corporation was incorporated, continued or amalgamated, whichever is the most recent.
5. The address of the corporation's head or registered office, including municipality, street and number, if any, and postal code.
6. The date on which the corporation commenced activities in Ontario, and, where applicable, the date on which it ceased activities in Ontario.
7. The name and office address of the corporation's chief officer or manager in Ontario, if any, including municipality, street and number, if any, and postal code, the date on which the person assumed this position, and, where applicable, the date on which the person ceased to hold this position.
8. The address of the corporation's principal office in Ontario, if any, including municipality, street and number, if any, and postal code.
9. If the corporation is required by law to have an agent for service in Ontario, the name and address of its agent, including municipality, street and number, if any, and postal code, and the Ontario corporation number of the agent, if the agent is a corporation. O. Reg. 12/91, s. 2.

3. Section 3 of the Regulation, as remade by section 1 of Ontario Regulation 231/85, is revoked.

4.—(1) Section 8 of the Regulation, as amended by section 1 of Ontario Regulation 838/82 and section 1 of Ontario Regulation 698/88, is further amended by striking out the portion before paragraph 1 and substituting the following:

8. The following classes of corporations are exempt from filing under sections 3 and 4 of the Act:

(2) Paragraphs 4 and 5 of section 8 are revoked.

5. Forms 1 and 2 of the Regulation, as remade by section 2 of Ontario Regulation 231/85, are revoked.

6. This Regulation comes into force on the day section 3 of the *Business Information Statute Law Amendment Act, 1989* comes into force.

7/91

ENVIRONMENTAL ASSESSMENT ACT

O. Reg. 13/91.

Designation—Lake Ontario Steel Limited—
A Division of Co-Steel Inc.
Made—January 17th, 1991.
Filed—January 23rd, 1991.

**REGULATION MADE UNDER THE
ENVIRONMENTAL ASSESSMENT ACT**

**DESIGNATION—LAKE ONTARIO STEEL COMPANY—
A DIVISION OF CO-STEEL INC.**

1. In this Regulation,

“Lake Ontario Steel Company—A Division of Co-Steel Inc.” includes any person related to Lake Ontario Steel Company—A Division of Co-Steel Inc. by ownership and any person who is a party to a contract with Lake Ontario Steel Company—A Division of Co-Steel Inc. respecting the enterprise or activity described in subsection 2 (1);

“site” means the land located on Part Lots 22, 23, 24 and Part of Road Allowance between Part Lots 22 and 23, Broken Front Concession, Town of Whitby in The Regional Municipality of Durham. O. Reg. 13/91, s. 1.

2.—(1) The enterprise or activity by Lake Ontario Steel Company—A Division of Co-Steel Inc. of disposing on the site of by-product waste originating from its car shredder operations, other than disposing of by-product waste by a method set out in subsection (2), is defined as a major commercial or business enterprise or activity and is designated as an undertaking to which the Act applies.

(2) The methods referred to in subsection (1) are:

1. Transporting the by-product waste to another location.
2. Reusing the by-product waste, other than reusing it as a fuel.
3. Transferring and storing the by-product waste in accordance with a certificate of approval or provisional certificate of approval issued under Part V of the *Environmental Protection Act*, where the certificate or provisional certificate provides that no additional by-product waste shall be transferred or stored under the certificate after the date that is six months after the date a decision is made under the *Environmental Assessment Act* to give or refuse approval to proceed with the undertaking designated by this Regulation. O. Reg. 13/91, s. 2.

7/91

HOMES FOR THE AGED AND REST HOMES ACT

O. Reg. 14/91.

General.
Made—January 21st, 1991.
Filed—January 23rd, 1991.

**REGULATION TO AMEND
REGULATION 502 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
HOMES FOR THE AGED AND REST HOMES ACT**

1. Item 61 of Table 1 of Regulation 502 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 620/90, is revoked and the following substituted:

61.	From and including the 1st day of December, 1990 up to and including the 31st day of January, 1991	24.33	56.71	42.12	100.00
62.	From and including the 1st day of February, 1991	24.58	56.71	42.37	100.00

7/91

GENERAL WELFARE ASSISTANCE ACT

O. Reg. 15/91.
 General.
 Made—January 21st, 1991.
 Filed—January 23rd, 1991.

**REGULATION TO AMEND
 REGULATION 441 OF REVISED REGULATIONS
 OF ONTARIO, 1980
 MADE UNDER THE
 GENERAL WELFARE ASSISTANCE ACT**

1. Item 41 of Schedule E to Regulation 441 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 573/90, is revoked and the following substituted:

41.	From and including the 1st day of November, 1990 up to and including the 31st day of January, 1991	\$24.33	67.13	100.00	58.33
42.	From and including the 1st day of February, 1991	\$24.58	67.13	100.00	58.33

7/91

FAMILY BENEFITS ACT

O. Reg. 16/91.
 General.
 Made—January 21st, 1991.
 Filed—January 23rd, 1991.

**REGULATION TO AMEND
 REGULATION 318 OF REVISED REGULATIONS
 OF ONTARIO, 1980
 MADE UNDER THE
 FAMILY BENEFITS ACT**

1. Subclause 12 (5) (e) (i) of Regulation 318 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 572/90, is revoked and the following substituted:

(i) \$24.58 a day, or

2. This Regulation comes into force on the 1st day of February, 1991.

7/91

CHARITABLE INSTITUTIONS ACT

O. Reg. 17/91.
 General.
 Made—January 21st, 1991.
 Filed—January 23rd, 1991.

**REGULATION TO AMEND
 REGULATION 95 OF REVISED REGULATIONS
 OF ONTARIO, 1980
 MADE UNDER THE
 CHARITABLE INSTITUTIONS ACT**

1. Item 62 of Table 1 of Regulation 95 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 619/90, is revoked and the following substituted:

62. From and including the 1st day of December, 1990 up to and including the 31st day of January, 1991	24.33	66.24	42.12	100.00	41.49
63. From and including the 1st day of February, 1991	24.58	66.24	42.37	100.00	41.49

7/91

LOCAL ROADS BOARDS ACT

O. Reg. 18/91.
General.
Made—January 21st, 1991.
Filed—January 24th, 1991.

**REGULATION TO AMEND
REGULATION 600 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
LOCAL ROADS BOARDS ACT**

1. Forms 1, 2, 3, 4, 5, 6, 7 and 8 of Regulation 600 of Revised Regulations of Ontario, 1980 are revoked and the following substituted:

Form 1

Local Roads Boards Act

TRUSTEE'S DECLARATION OF OFFICE

I,, do hereby declare the following:

1. I am at least eighteen years of age.
2. I am a Canadian citizen or landed immigrant.
3. I am the owner of Lot..... in Concession..... of the Township of.....
4. I will faithfully and impartially perform my duties as Trustee of the Local Roads Board for the..... Local Roads Area.
5. I have not accepted and will not accept any improper payment or reward for performing my duties as Trustee.
6. I owe no arrears in taxes under the *Local Roads Boards Act* in respect of any previous years.

Dated the..... day of....., 19.....

Signed by:

Witnessed by:

Formule 1

Loi sur les régies des routes locales

**DÉCLARATION D'ENTRÉE EN FONCTION DE
L'ADMINISTRATEUR**

Je soussigné(e),, déclare ce qui suit par la présente :

1. J'ai au moins dix-huit ans.
2. Je suis citoyen(ne) canadien(ne) ou immigrant(e) admis(e).
3. Je suis le propriétaire du lot dans la concession du canton d.....
4. J'exercerai fidèlement et impartialement mes fonctions d'administrateur de la régie des routes locales de la zone de routes locales d.....
5. Je n'ai pas accepté et n'accepterai pas de paiement ni de rémunération inappropriés en ce qui concerne l'exercice de mes fonctions d'administrateur.
6. Je ne dois aucun arriéré d'impôt payable aux termes de la *Loi sur les régies des routes locales* à l'égard d'années antérieures.

Fait le 19.....

Signé par :

Témoin :

O. Reg. 18/91, s. 1, part.

Form 2

Local Roads Boards Act

DECLARATION OF SECRETARY-TREASURER

I,, do hereby declare the following:

1. I am at least eighteen years of age.
2. I am a Canadian citizen or landed immigrant.
3. I will faithfully and impartially perform my duties as Secretary-Treasurer of the Local Roads Board for the Local Roads Area.
4. I have not accepted and will not accept any improper payment or reward for performing my duties as Secretary-Treasurer.
5. I owe no arrears in taxes under the *Local Roads Boards Act* in respect of any previous years.

Dated the..... day of....., 19.....

Signed by:

Witnessed by:

Formule 2

Loi sur les régies des routes locales

DÉCLARATION DU SECRÉTAIRE-TRÉSORIER

Je soussigné(e),, déclare ce qui suit par la présente :

- 1. J'ai au moins dix-huit ans.
- 2. Je suis citoyen(ne) canadien(ne) ou immigrant(e) admis(e).
- 3. J'exercerai fidèlement et impartialement mes fonctions de secrétaire-trésorier de la régie des routes locales de la zone de routes locales d.....
- 4. Je n'ai pas accepté et n'accepterai pas de paiement ni de rémunération inappropriés en ce qui concerne l'exercice de mes fonctions de secrétaire-trésorier.
- 5. Je ne dois aucun arriéré d'impôt payable aux termes de la *Loi sur les régies des routes locales* à l'égard d'années antérieures.

Fait le 19.....
 Signé par :
 Témoin :

O. Reg. 18/91, s. 1, part.

Form 3

Local Roads Boards Act

PETITION

To the Honourable, Minister of Transportation:

At a meeting held under section 7 of the *Local Roads Boards Act*, on the..... day of....., 19....., the majority of the owners of land in the proposed Local Roads Area voted in favour of establishing such an area, bounded by (or composed of)

and including the following local roads within that area:

At that meeting, those owners elected the following from among themselves to be trustees of the Board:

and the person signing below was elected secretary of the meeting.

Therefore, that person on behalf of those owners hereby requests the Honourable....., Minister of Transportation, to establish the proposed Local Roads Area as a Local

Roads Area under the *Local Roads Boards Act*, and to designate that the roads mentioned above be included in it.

Dated at.....
this..... day of.....
19.....

Secretary

Formule 3

Loi sur les régies des routes locales

PÉTITION

À l'honorable, ministre des Transports :

Lors d'une assemblée tenue aux termes de l'article 7 de la *Loi sur les régies des routes locales* le

19....., la majorité des propriétaires de biens-fonds situés dans la zone de routes locales projetée a voté en faveur de la création d'une zone de routes locales limitée par (ou composée de)

et comprenant les routes locales suivantes :

Lors de cette assemblée, les propriétaires ont élu les personnes suivantes parmi eux aux fonctions d'administrateurs de la régie :

et la personne dont la signature est apposée ci-dessous a été élue secrétaire de l'assemblée.

Par conséquent, cette personne, au nom des propriétaires, demande par la présente à l'honorable, ministre des Transports, de créer la zone de routes locales projetée en tant que zone de routes locales en vertu de la *Loi sur les régies des routes locales*, et d'y inclure, par désignation, les routes locales mentionnées ci-dessus.

Fait à
le 19.....

Secrétaire

O. Reg. 18/91, s. 1, part.

Form 4

Local Roads Boards Act

CAUTION

To: The Land Registrar for the Land Titles Division of.....

.....

I,, of the.....

....., in the.....

the Secretary-Treasurer of the Local Roads Board for the.....

..... Local Roads Area, hereby give notice that this Board

has an interest in the land registered in the name of.....

..... as Parcel..... in the

Register for....., and I require that the registered owner not deal with the land until I am served with notice.

The Board's interest in the land is as follows:

- 1. The taxes imposed under the *Local Roads Boards Act* have been unpaid for two years or more.
- 2. The land and every interest in it will be liable to be forfeited to and vested in the Crown unless all taxes, penalties and prescribed costs due under the *Local Roads Boards Act* are paid.

My address for service is.....

.....

Dated at....., this..... day of.....,

19.....

.....
Secretary-Treasurer

Formule 4

Loi sur les régies des routes locales

AVERTISSEMENT

Au : Registraire de la division d'enregistrement des droits immobiliers

d.....

Je soussigné(e),,

d..... dans,

secrétaire-trésorier de la régie des routes locales de la zone de routes

locales d....., donne avis par la présente que la régie a un intérêt relatif au bien-fonds enregistré au nom

d..... comme parcelle

dans le registre d....., et je requiers que le propriétaire inscrit n'effectue aucune opération relative au bien-fonds jusqu' à ce qu'un avis me soit signifié à cette fin.

L'intérêt que la régie possède relativement au bien-fonds est le suivant :

- 1. L'impôt prévu par la *Loi sur les régies des routes locales* n'a pas été payé pendant au moins deux ans.

- 2. Le bien-fonds et tout intérêt qui y est relatif peuvent être confisqués et dévolus à la Couronne, à moins que l'intégralité de l'impôt, de la pénalité et des frais prescrits exigibles conformément à la *Loi sur les régies des routes locales* ne soit payée.

Mon adresse aux fins de signification est

.....

Fait à le 19.....

.....
Secrétaire-trésorier

O. Reg. 18/91, s. 1, part.

Form 5

Local Roads Boards Act

CAUTION

To: The Land Registrar for the Registry Division of.....

.....

I,, of the.....

....., in the.....

the Secretary-Treasurer of the Local Roads Board for the.....

..... Local Roads Area, hereby give notice that this Board

has an interest in the following land:

.....

.....

The Board's interest in the land is as follows:

- 1. The taxes imposed under the *Local Roads Boards Act* have been unpaid for two years or more.
- 2. The land and every interest in it will be liable to be forfeited to and vested in the Crown unless all taxes, penalties and prescribed costs due under the *Local Roads Boards Act* are paid.

My address for service is.....

.....

Dated at....., this..... day of.....,

19.....

.....
Secretary-Treasurer

Formule 5

Loi sur les régies des routes locales

AVERTISSEMENT

Au : Registraire de la division d'enregistrement d.....

.....

Je soussigné(e),,

d..... dans,

secrétaire-trésorier de la régie des routes locales de la zone de routes locales d....., donne avis par la présente que la régie a un intérêt relatif au bien-fonds suivant :

L'intérêt que la régie possède relativement au bien-fonds est le suivant :

- 1. L'impôt prévu par la Loi sur les régies des routes locales n'a pas été payé pendant au moins deux ans.
2. Le bien-fonds et tout intérêt qui y est relatif peuvent être confisqués et dévolus à la Couronne, à moins que l'intégralité de l'impôt, de la pénalité et des frais prescrits exigibles conformément à la Loi sur les régies des routes locales ne soit payée.

Mon adresse aux fins de signification est

Fait à le 19.....

Secrétaire-trésorier

O. Reg. 18/91, s. 1, part.

Form 6

Local Roads Boards Act

WITHDRAWAL OF CAUTION

To: The Land Registrar for the Land Titles Division of.....

I,, of the.....

....., in the.....

the Secretary-Treasurer of the Local Roads Board for the.....

..... Local Roads Area, do hereby withdraw the caution which was registered in the Land Registry Office for the Land Titles Division

of..... on the..... day of.....

19....., as number..... and which claimed an

interest in the land registered in the name of.....

as Parcel.....in the Register for.....

Dated at....., this..... day of.....

19.....

Secretary-Treasurer

Formule 6

Loi sur les régies des routes locales

RETRAIT D'AVERTISSEMENT

Au : Registrateur de la division d'enregistrement des droits immobiliers

d.....
Je soussigné(e),, dans

secrétaire-trésorier de la régie des routes locales de la zone de routes locales d....., retire par la présente l'avertissement qui avait été enregistré au bureau d'enregistrement immobilier de la division d'enregistrement des droits immobiliers

d..... le 19....., sous le numéro, et selon lequel la régie avait un intérêt relatif au bien-fonds enregistré au nom d.....comme

parcelledans le registre d.....

Fait à le 19.....

Secrétaire-trésorier

O. Reg. 18/91, s. 1, part.

Form 7

Local Roads Boards Act

WITHDRAWAL OF CAUTION

To: The Land Registrar for the Registry Division of.....

I,, of the.....

....., in the.....

the Secretary-Treasurer of the Local Roads Board for the.....

..... Local Roads Area, do hereby withdraw the caution which was registered in the Land Registry Office for the Registry Division

of..... on the..... day of.....

19....., as number..... and which claimed an

interest in the following land:

Dated at....., this..... day of.....

19.....

Secretary-Treasurer

Formule 7

Loi sur les régies des routes locales

RETRAIT D'AVERTISSEMENT

Au : Registrateur de la division d'enregistrement d.....

Je soussigné(e),

d....., dans,
secrétaire-trésorier de la régie des routes locales de la zone de routes
locales d....., retire par la présente
l'avertissement qui avait été enregistré au bureau d'enregistrement
immobilier de la division d'enregistrement d.....

le 19....., sous le numéro
et selon lequel la régie avait un intérêt relatif au bien-fonds suivant :

Fait à le 19.....

Secrétaire-trésorier

O. Reg. 18/91, s. 1, part.

Form 8

Local Roads Boards Act

NOTICE OF TAX ARREARS

To:

TAKE NOTICE that the land described below and every interest in
it will be liable to be forfeited to and vested in the Crown unless all
taxes, penalties and prescribed costs due under the *Local Roads Boards
Act* in respect of it are paid within twelve months after the date that this
notice is mailed.

DESCRIPTION OF LAND:

The total amount of taxes, penalties and prescribed costs due is
\$. A certified cheque or money order should be made
payable to the Local Roads Board for the.....
Local Roads Area and addressed to the person signing below.

Dated at....., this..... day of.....,

19.....

Secretary-Treasurer

Formule 8

Loi sur les régies des routes locales

AVIS D'ARRIÉRÉS D'IMPÔT

À :

SOYEZ AVISÉ que le bien-fonds décrit ci-dessous et tout intérêt qui
y est relatif peuvent être confisqués et dévolus à la Couronne, à moins que
l'intégralité de l'impôt, de la pénalité et des frais prescrits exigibles
conformément à la *Loi sur les régies des routes locales* en ce qui concerne
le bien-fonds ne soit payée dans les douze mois qui suivent la date de mise
à la poste du présent avis.

DESCRIPTION DU BIEN-FONDS :

L'intégralité de l'impôt, de la pénalité et des frais prescrits qui sont
exigibles est de\$. Un chèque visé ou un mandat devrait être
fait à l'ordre de la régie des routes locales de la zone de routes locales

d..... et adressé à personne dont la signature est
apposée ci-dessous.

Fait à le 19.....

Secrétaire-trésorier

O. Reg. 18/91, s. 1, part.

7/91

REAL ESTATE AND BUSINESS BROKERS ACT

O. Reg. 19/91.

General.

Made—January 21st, 1991.

Filed—January 24th, 1991.

**REGULATION TO AMEND
REGULATION 891 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
REAL ESTATE AND BUSINESS BROKERS ACT**

1.—(1) Paragraph 3 of section 11 of Regulation 891 of Revised
Regulations of Ontario, 1980, as remade by section 1 of Ontario
Regulation 719/88, is revoked and the following substituted:

3. Upon application for registration as a salesman or renewal
thereof \$100

(2) Paragraphs 3a and 3b of section 11, as made by section 1 of
Ontario Regulation 719/88, are revoked.

7/91

MOTOR VEHICLE DEALERS ACT

O. Reg. 20/91.

General.

Made—January 21st, 1991.

Filed—January 24th, 1991.

**REGULATION TO AMEND
REGULATION 665 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
MOTOR VEHICLE DEALERS ACT**

1.—(1) Paragraph 3 of section 2 of Regulation 665 of Revised
Regulations of Ontario, 1980, as remade by section 1 of Ontario
Regulation 718/88, is revoked and the following substituted:

3. Upon application for registration as a salesman or renewal
thereof \$100

(2) Paragraphs 4 and 5 of section 2 as made by section 1 of
Ontario Regulation 718/88, are revoked.

7/91

INTERPRETATION ACT

O. Reg. 21/91.

Fees Payable under Various Acts.
 Made—January 17th, 1991.
 Filed—January 24th, 1991.

**REGULATION TO AMEND
 REGULATION 537 OF REVISED REGULATIONS
 OF ONTARIO, 1980
 MADE UNDER THE
 INTERPRETATION ACT**

1. Regulation 537 of Revised Regulations of Ontario, 1980 is amended by renumbering section 1 as section 1a and by adding the following section:

AGRICULTURAL AND HORTICULTURAL ORGANIZATIONS ACT, 1988

1. The following fees shall be paid for the incorporation of an organization under the *Agricultural and Horticultural Organizations Act, 1988*:

1. \$100 for agricultural associations.
2. \$25 for agricultural societies.
3. \$25 for horticultural societies. O. Reg. 21/91, s. 1, *part*.

7/91

CONSERVATION AUTHORITIES ACT

O. Reg. 22/91.

Fill, Construction and Alteration to Waterways — Maitland Valley Conservation Authority.
 Made—August 15th, 1990.
 Approved—January 21st, 1991.
 Filed—January 25th, 1991.

**REGULATION MADE UNDER THE
 CONSERVATION AUTHORITIES ACT**

**FILL, CONSTRUCTION AND ALTERATION TO
 WATERWAYS — MAITLAND VALLEY
 CONSERVATION AUTHORITY**

INTERPRETATION

1. In this Regulation,

- “Authority” means the Maitland Valley Conservation Authority;
- “building” means a building or structure of any kind;
- “drainage area” means, for a point, the area which contributes runoff to that point;
- “fill” means earth, sand, gravel, building materials, storage materials, rubble, rubbish, garbage or any other material whether similar to or different from any of the aforementioned materials, whether originating on the site or elsewhere, used or capable of being used to raise, lower or in any way affect the contours of the ground;
- “fill line” means any line designated as such on the maps referred to in the schedules;
- “regional storm” means,
 - (a) for the Nine Mile River watershed, the rainfall, snowmelt or the combination of rainfall and snowmelt which has the

probability of occurrence of 1 per cent during any given year,

- (b) for rivers, streams and watercourses other than the Nine Mile River watershed, a storm producing in a twelve-hour period, on a drainage area of,
 - (i) twenty-five square kilometres or less, a rainfall that has the distribution set out in Table 1, or
 - (ii) more than twenty-five square kilometres, a rainfall such that the number of millimetres of rain referred to in each case in Table 1 shall be modified by the percentage amount shown in Column 2 of Table 2 opposite the size of the drainage area set out opposite thereto in Column 1 of Table 2:

TABLE 1

73 mm of rain in the first 36 hours
6 mm of rain in the 37th hour
4 mm of rain in the 38th hour
6 mm of rain in the 39th hour
13 mm of rain in the 40th hour
17 mm of rain in the 41st hour
13 mm of rain in the 42nd hour
23 mm of rain in the 43rd hour
13 mm of rain in the 44th hour
13 mm of rain in the 45th hour
53 mm of rain in the 46th hour
38 mm of rain in the 47th hour
13 mm of rain in the 48th hour

TABLE 2

COLUMN 1	COLUMN 2
Drainage Area (square kilometres)	Percentage
26 to 45 both inclusive	99.2
46 to 65 both inclusive	98.2
66 to 90 both inclusive	97.1
91 to 115 both inclusive	96.3
116 to 140 both inclusive	95.4
141 to 165 both inclusive	94.8
166 to 195 both inclusive	94.2
196 to 220 both inclusive	93.5
221 to 245 both inclusive	92.7

Table 2 (cont)

COLUMN 1	COLUMN 2
Drainage Area (square kilometres)	Percentage
246 to 270 both inclusive	92.0
271 to 450 both inclusive	89.4
451 to 575 both inclusive	86.7
576 to 700 both inclusive	84.0
701 to 850 both inclusive	82.4
851 to 1000 both inclusive	80.8
1001 to 1200 both inclusive	79.3
1201 to 1500 both inclusive	76.6
1501 to 1700 both inclusive	74.4
1701 to 2000 both inclusive	73.3
2001 to 2200 both inclusive	71.7
2201 to 2500 both inclusive	70.2
2501 to 2700 both inclusive	69.0
2701 to 4500 both inclusive	64.4
4501 to 6000 both inclusive	61.4
6001 to 7000 both inclusive	58.9
7001 to 8000 both inclusive	57.4

"river", "lake", "creek", "stream" or "watercourse" means any river, lake, creek, stream or watercourse under the jurisdiction of the Authority. O. Reg. 22/91, s. 1.

2. The areas described in the Schedule are areas in which, in the opinion of the Authority, the control of flooding or pollution or the conservation of land may be affected by the placing or dumping of fill. O. Reg. 22/91, s. 2.

3. Subject to section 4, no person shall,

- (a) construct any building or permit any building to be constructed in or on a pond or swamp or in any area susceptible to flooding during a regional storm;
- (b) place or dump fill of any kind or permit fill to be placed or dumped in any area described in the Schedule whether the fill is already located in or upon the area or brought to or on the area from some other place; or
- (c) straighten, change, divert or interfere in any way with the existing channel of a river, lake, creek, stream or watercourse. O. Reg. 22/91, s. 3.

4. Subject to the *Ontario Water Resources Act* or to any private interest, the Authority may permit in writing the construction of any building or the placing or dumping of fill or the straightening, changing, diverting or interfering with the existing channel of a river, lake, creek, stream or watercourse to which section 3 applies if, in the opinion of the Authority, the site of the building or the placing or dumping of fill or the straightening, changing, diverting or interfering with the existing channel will not affect the control of flooding or pollution or the conservation of land. O. Reg. 22/91, s. 4.

5.—(1) A signed application for permission to construct a building shall be filed with the Authority and shall include,

- (a) four copies of a plan of the property showing the proposed location of the building, its elevation and the proposed final grade plan;
- (b) four copies of a complete description of the type of building to be constructed, including drainage details and the method of construction;
- (c) four copies of a statement of the dates between which the construction will be carried out; and
- (d) four copies of a statement of the proposed use of the building following completion of the construction.

(2) A signed application for permission to place or dump fill shall be filed with the Authority and shall include,

- (a) four copies of a plan of the property on which the fill is to be placed, showing the proposed location of filling, the depth to which it is proposed to fill and the proposed final grade of the land when filling is completed;
- (b) four copies of a complete description of the type of fill proposed to be placed or dumped and the method of placing or dumping the fill;
- (c) four copies of a statement of the dates between which the placing or dumping will be carried out; and
- (d) four copies of a statement of the proposed use of the land following completion of placing or dumping.

(3) A signed application for permission to straighten, change, divert or interfere in any way with the existing channel of a river, lake, creek, stream or water course, shall be filed with the Authority and shall include,

- (a) four copies of a plan on which shall be shown in plan view and cross section the details of such straightening, change, diversion or interference;
- (b) four copies of a description of the protective measures to be undertaken and the method to be used to carry out such straightening, change, diversion or interference;
- (c) four copies of a statement of the dates between which the straightening, changing, diverting or interfering will be carried out; and
- (d) four copies of a statement of the purpose of the proposed work. O. Reg. 22/91, s. 5.

6. The Authority may, at any time, withdraw any permission given under section 4 if, in the opinion of the Authority, the representations contained in the application for permission are not carried out. O. Reg. 22/91, s. 6.

7. Members of the staff of the Authority are appointed as officers to enforce this Regulation. O. Reg. 22/91, s. 7.

8. **Ontario Regulations 503/81 and 313/84 are revoked.**

Schedule 1

Introduction

In the counties of Huron, Perth and Bruce, as shown delineated by fill lines indicated on Maps MV1-1-56, 58-67, 69-120, identified by a stamp of the Registrar of Regulations dated the 4th day of July, 1990, and filed in the Southwestern Regional Office of the Ministry of Natural Resources at London, more particularly described as follows:

TOWNSHIP OF COLBORNE

In the Township of Colborne, County of Huron, and being composed of part or all of the following lots:

Lot	Concession	Block	Registered Plan
1-8	I W.D. (Western Division)		
1-4, 7, 8	II W.D. (Western Division)		
2-6	III W.D. (Western Division)		
1-3, 7, 8	IV W.D. (Western Division)		
1	V W.D. (Western Division)		
2	VI W.D. (Western Division)		
2	VII W.D. (Western Division)		
4, 9-11	VIII W.D. (Western Division)		
2, 4-11	IX W.D. (Western Division)		
2-11	X W.D. (Western Division)		
1-11	XI W.D. (Western Division)		
3-11	XII W.D. (Western Division)		
10, 11	XIII W.D. (Western Division)		
1-3, 6, 11-14	I E.D. (Eastern Division)		
1, 2, 6, 7, 11, 14, 15	II E.D. (Eastern Division)		
2-7, 11-15	III E.D. (Eastern Division)		
1, 3-5, 10-12	IV E.D. (Eastern Division)		
3-5, 10-12	V E.D. (Eastern Division)		
2, 3-16	VI E.D. (Eastern Division)		
1-17	VII E.D. (Eastern Division)		
8-11, 16	VIII E.D. (Eastern Division)		
5, 6, 9, 10	IX E.D. (Eastern Division)		
2, 3	X E.D. (Eastern Division)		

Lot	Concession	Block	Registered Plan
1	XI E.D. (Eastern Division)		
6-31	Maitland		
1, 4-6, 9, 11-13, 15-19	Broken Front		
3-6, 8, 9, 11, 12, 15-19	Lake Road West		
2-8, 10-12, 16	Lake Road East		
		A-G	
1-9, 13-15, 25-35, 38-47, 63-69			R.P. 180
Brick Yard			R.P. 180
		A,B,H	R.P. 180
1-21			R.P. 205
		A, B	R.P. 206
5-9			R.P. 546
1-5, 8-12			R.P. 564
A			R.P. 565
5-6			R.P. 567
7			R.P. 569
1-4, 26			R.P. 570
16-18, 54			R.P. 571
4-8			R.P. 576
13, 17-20, 31			R.P. 578
		40	R.P. 578

TOWNSHIP OF ASHFIELD

In the Township of Ashfield, County of Huron, and being composed of part or all of the following lots:

Lot	Concession	Block	Registered Plan
1	I W.D. (Western Division)		
1, 2	II W.D. (Western Division)		
1-3	III W.D. (Western Division)		
1-4	V W.D. (Western Division)		
1-5	VI W.D. (Western Division)		

Lot	Concession	Block	Registered Plan
5-7	VII W.D. (Western Division)		
1-5	VIII W.D. (Western Division)		
1-9	IX W.D. (Western Division)		
1, 2, 7, 8, 10, 11	X W.D. (Western Division)		
1-4	XI W.D. (Western Division)		
2-4, 11-14	XII W.D. (Western Division)		
4-8, 10-16	XIII W.D. (Western Division)		
7-17	XIV W.D. (Western Division)		
1-12	I E.D. (Eastern Division)		
1-12	II E.D. (Eastern Division)		
1-6, 9-12	III E.D. (Eastern Division)		
1-12	IV E.D. (Eastern Division)		
1, 8-11	V E.D. (Eastern Division)		
1, 8-12	VI E.D. (Eastern Division)		
1-6, 8-12	VII E.D. (Eastern Division)		
1-3, 6-8, 10-12	VIII E.D. (Eastern Division)		
3-5, 10-12	IX E.D. (Eastern Division)		
1-5, 9-11	X E.D. (Eastern Division)		
6-12	XI E.D. (Eastern Division)		
5-9, 11, 12	XII E.D. (Eastern Division)		
10-12	XIII E.D. (Eastern Division)		
11, 12	XIV E.D. (Eastern Division)		
2, 5, 6	Front S.T.P. (South of Town Plan)		
2, 4, 6-17, 19-23, 26-35, 37-45	Front N.T.P. (North of Town Plan)		

Lot	Concession	Block	Registered Plan
7, 26-30, 35-40, (W. of Huron St.)			R.P. 136
5, 6, 25-30, 36-45 (E. of Huron St.)			R.P. 136
5, 6, 28-30, 39-46 (W. of Colborne St.)			R.P. 136
5-7, 28, 29, 31-45 (E. of Colborne St.)			R.P. 136
6-8, 32-42 (W. of Arthur St.)			R.P. 136
7, 8, 32-42 (E. of Arthur St.)			R.P. 136
4-8, 32-42 (W. of Sydenham St.)			R.P. 136
4, 5, 33-42 (E. of Sydenham St.)			R.P. 136
4, 5, 33-42 (W. of Wellington St.)			R.P. 136
4, 5, 33-43 (E. of Wellington St.)			R.P. 136
1-6 (N. of Melbourne St.)			R.P. 136
1-7 (S. of Melbourne St.)			R.P. 136
1-9 (N. of Victoria St.)			R.P. 136
2 (S. of Ashfield St.)			R.P. 136
1-3 (N. of South St.)			R.P. 136
8, 9 (W. of London Rd.)			R.P. 136
9, 10 (E. of London Rd.)			R.P. 136
6, 7 (N. of Melbourne St.)			R.P. 139
1, 2, 11-13, 42-43			R.P. 209
5-9			R.P. 280
1-34			R.P. 579
14-35			R.P. 580
28-36			R.P. 581
		E, Ravine	R.P. 581
		A	R.P. 587
		C	R.P. 589

Lot	Concession	Block	Registered Plan
24			R.P. 590
10			R.P. 591
		A, B	R.P. 592

TOWNSHIP OF WEST WAWANOSH

In the Township of West Wawanosh, County of Huron, and being composed of part or all of the following lots:

Lot	Concession	Block	Registered Plan
13, 15-21, 24-27	I		
13-21, 23, 24, 26, 27	II		
13, 15-20, 24-27	III		
13-20, 23-27	IV		
13-27	V		
13-27	VI		
13-27	VII		
14-17, 20-27	VIII		
13-17, 20-27	IX		
13-25, 27	X		
13-25	XI		
13-27	XII		
13-27	XIII		
13-27	XIV		
28			R.P. 301
29-35, 40-43			R.P. 302

TOWNSHIP OF EAST WAWANOSH

In the Township of East Wawanosh, County of Huron, and being composed of part or all of the following lots:

Lot	Concession	Block	Registered Plan
29-35, 37-41	I		
28-39	II		
28-41	III		
28-32, 34-42	IV		
28, 29, 31-37, 39-41	V		
28-37, 40, 41	VI		

Lot	Concession	Block	Registered Plan
30-34, 37-42	VII		
29-35, 37-42	VIII		
28-39, 42	IX		
30-39, 42	X		
29-32, 34-42	XI		
28-42	XII		
28-42	XIII		
28-42	XIV		
15			R.P. 500
		A	R.P. 500

TOWNSHIP OF GREY

In the Township of Grey, County of Huron, and being composed of part or all of the following lots:

Lot	Concession	Block	Registered Plan
1-70	I		
1-8, 11-33	II		
2, 4-35	III		
1-12, 14-16, 18-20, 22-35	IV		
1-9, 11-35	V		
4-9, 12-35	VI		
4, 5, 8, 9, 15-22, 25-35	VII		
6, 7, 10-13, 17, 18, 20-26, 28-35	VIII		
4-7, 10-17, 19-22, 24, 26-29, 31-35	IX		
2-4, 6, 10-14, 17-34	X		
2-27, 30-35	XI		
1-15, 17-25, 27-35	XII		
1-22, 24, 25, 28, 32-35	XIII		
1-11, 14-29, 31, 32, 34, 35	XIV		
6-19, 21-25, 28-30, 34, 35	XV		
1-4, 11-15, 17-20, 22-35	XVI		
2-4, 6, 7, 15-35	XVII		

Lot	Concession	Block	Registered Plan
2-7, 9, 17, 18, 21-27	XVIII		
240, 241, Mill Reserve			R.P. 207
Park Lots 6, 7, 18, 19, 25, 34, 35, 55, 67, 68, 72			R.P. 207
		B	R.P. 207
3, 4, 68-99			R.P. 261

TOWNSHIP OF HOWICK

In the Township of Howick, County of Huron, and being composed of part or all of the following lots:

Lot	Concession	Block	Registered Plan
6-13, 15-19, 21-32	I		
3-13, 15-19, 22, 23, 25-32	II		
1-15, 17-25, 28, 29, 31, 32	III		
1-3, 7-20, 22, 23, 28-32	IV		
1-15, 18, 20-24, 27-30, 32	V		
1-4, 10-19, 22-32	VI		
1-3, 7, 8, 12-14, 16, 17, 22-33	VII		
1-4, 7-15, 17, 22-25, 27-33	VIII		
1, 3, 4, 6, 7, 9-13, 15-27, 32, 33	IX		
1-4, 6-9, 12-22, 24-28, 31-33	X		
1-9, 11, 12, 14-24, 26-29, 31-33	XI		
1, 2, 4-8, 13-20, 24-28, 30-31	XII		
1-14, 16-20, 24-32	XIII		
1-10, 12-20, 22-33	XIV		
1-19, 21-33	XV		
1-6, 8-11, 16-33	XVI		
4-7, 10-13, 17-22, 24-27, 30, 31	XVII		

Lot	Concession	Block	Registered Plan
6, 7, 12, 13, 19-21	XVIII		
11-25, 27-37	A		
11-25, 27-37	B		
11-17, 19-40	C		
17, 24 (N. of Victoria St.)			R.P. 243
1-7 (S. of Victoria St.)			R.P. 243
1-6 (N. of Albert St.)			R.P. 243
1-4 (S. of Albert St.)			R.P. 243
1-4 (N. of Adelaide St.)			R.P. 243
1-4 (S. of Adelaide St.)			R.P. 243
1-4 (N. of Mary St.)			R.P. 243
1-4 (S. of Mary St.)			R.P. 243
1-4 (N. of Louisa St.)			R.P. 243
9 (N. of Alfred St.)			R.P. 243
9 (N. of Helena St.)			R.P. 243
12 (S. of Helena St.)			R.P. 243
11 (N. of Caroline St.)			R.P. 243
10 (S. of Caroline St.)			R.P. 243
9, 16 (N. of South St.)			R.P. 243
Mill Reserve			R.P. 243
1-13, A, B			R.P. 244
1-13			R.P. 245
1, 2			R.P. 246
8-10, 24-30			R.P. 247
		A, C	R.P. 247
14-18, 24-27, 34-38, 61-65, 73-76, 84, 85, 101-106, 113-118, 126-130, 149-154, 159-164, 167-172, 203-228, 261-272, 274-284			R.P. 276

Lot	Concession	Block	Registered Plan
Park Lots 5-7, 9, 12, 13, 15, 18-21			R.P. 276
Mill Race, Reserve			R.P. 276
309, 310			R.P. 277
1, 10, 13-20, 28-30, 32, 34-36			R.P. 282
14-18			R.P. 298
1-4, 25-29 (S. of Fralick St.)			R.P. 316
1-6, 10-15 (N. of Howick St.)			R.P. 316
1-10, 16, 17 (S. of Howick St.)			R.P. 316
11, 13, 29 (N. of Playford St.)			R.P. 316
14-24 (S. of Playford St.)			R.P. 316
16-24 (N. of Gibson St.)			R.P. 316
1-5 (S. of Gibson St.)			R.P. 316
7-12 (S. of Mill St.)			R.P. 316
9-15 (N. of Queen St.)			R.P. 316
7-9 (N. of Ann St.)			R.P. 316
9-11 (W. of Marietta St.)			R.P. 316
7-9 (W. of Centre St.)			R.P. 316
Park Lots 25-37			R.P. 316
		A-D	R.P. 316
14-16 (S. of Playford St.)			R.P. 317
22, 37-43, 51-58, 61, 62			R.P. 317

TOWN OF LISTOWEL

In the Town of Listowel, County of Perth, extending upstream from the western boundary of the Town, being the line between lots 30 and 31 of Concession I in the Township of Elma, to the northeasterly boundary of the Town, being the line between the north half of Lot 22 of Concession I in the Township of Wallace.

VILLAGE OF LUCKNOW

In the Village of Lucknow, in the County of Bruce and the County of Huron, extending upstream from the southerly boundary of the Village,

being the line between the north half and south half of Lot 13 of Concession XIV in the Township of West Wawanosh, in the County of Huron, to the northerly boundary of the Village, being the line between the north half and south half of lots 57 to 61 in Concession I in the Township of Kinloss, in the County of Bruce. O. Reg. 22/91, Sched. 1.

MAITLAND VALLEY CONSERVATION AUTHORITY:

BRUCE MCCALL
Chairman
MARLENE SHIELL
Secretary-Treasurer

Dated at Wroxeter, this 15th day of August, 1990.

PETROLEUM RESOURCES ACT

O. Reg. 23/91.

Spacing Units —
Mersea 6-23-VII Pool.
Made—January 21st, 1991.
Filed—January 25th, 1991.

REGULATION MADE UNDER THE
PETROLEUM RESOURCES ACTSPACING UNITS —
MERSEA 6-23-VII POOL

1. In this Regulation, "Plan" means the plan filed in the Regional Office of the Ministry of Natural Resources at London as Plan No. S.W.R. 90-7, and identified by the stamp of the Registrar of Regulations dated the 25th day of October, 1990. O. Reg. 23/91, s. 1.

2. This Regulation applies only to wells drilled into a geological formation of Ordovician or Cambrian age. O. Reg. 23/91, s. 2.

3. The areas shown outlined in green on the Plan, of approximately 20.24 hectares each unless otherwise shown on the Plan, are designated as spacing units for the purpose of this Regulation, those areas being in the Township of Mersea in the County of Essex and being parts of,

- (a) the south half of Lot 18 and the south quarters of lots 19 and 20 in Concession VIII;
- (b) the north quarter of Lot 18, the north half of lots 19 and 20 and the north three-quarters of Lot 21 in Concession VII; and
- (c) those parts of lots 22 and 23 in Concession VII and lots 219, 220 and 221 in NTR Concession, bounded on the west by the west limit of Lot 22, on the east by the east limit of Lot 23 and its southerly prolongation, on the south by a line drawn due east from the easternmost point of the north limit of the road allowance between concessions VI and VII, and on the north by a line drawn due east from the southeast angle of the north quarter of Lot 21 in Concession VII. O. Reg. 23/91, s. 3.

4.—(1) In this section, "target area" means that part of a spacing unit that is no closer than 106.68 metres to any boundary of the spacing unit.

(2) No person shall,

- (a) produce from more than one well in a spacing unit;
- (b) bore or drill a well in a spacing unit outside the target area unless topographical, geological or other conditions make boring or drilling a well within the target area unfeasible; or

- (c) produce oil or gas from a well in a spacing unit unless all the interests in the oil and gas in the spacing unit have been joined for the purpose of producing from the well. O. Reg. 23/91, s. 4.

5. Ontario Regulation 136/90 is revoked.

7/91

GAME AND FISH ACT

O. Reg. 24/91.

Hunting Licences.

Made—January 21st, 1991.

Filed—January 28th, 1991.

**REGULATION TO AMEND
REGULATION 420 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
GAME AND FISH ACT**

1. Section 2a of Regulation 420 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 138/83 and amended by section 2 of Ontario Regulation 186/84 and section 2 of Ontario Regulation 499/87, is further amended by adding the following subsection:

(9) Only one tag in Form 27 shall be issued for each property described in subclause (2) (b) (ii). O. Reg. 24/91, s. 1.

2. Section 16a of the Regulation, as remade by section 1 of Ontario Regulation 27/87 and amended by section 2 of Ontario Regulation 132/87, section 3 of Ontario Regulation 499/87, section 1 of Ontario Regulation 629/87, section 1 of Ontario Regulation 554/88 and section 1 of Ontario Regulation 261/89, is further amended by adding the following subsection:

(3a) Only one certificate in Form 32 shall be issued for each property described in subclause (2) (b) (i). O. Reg. 24/91, s. 2.

3. Form 21 of the Regulation, as remade by section 3 of Ontario Regulation 127/83, is amended by striking out,

“ certificate issued by a hunting examiner in Ontario
dated _____
(year, month, day)

No. _____ and filed with this application;”

and substituting,

“ certificate issued by a hunting examiner in Ontario

dated
(year, month, day)

No.;”

7/91

GAME AND FISH ACT

O. Reg. 25/91.

Sale of Bass and Trout and Fishing Preserves.

Made—January 21st, 1991.

Filed—January 28th, 1991.

**REGULATION TO AMEND
REGULATION 433 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
GAME AND FISH ACT**

1. Section 17 of Regulation 433 of Revised Regulations of Ontario, 1980, as made by section 4 of Ontario Regulation 619/89, is revoked and the following substituted:

17.—(1) A licence issued to transport and stock fish shall be in Form 8.

(2) A licence issued in Form 8 expires on the 31st day of December of the year in which it was issued, unless a date of expiry is set out on the licence.

(3) Where a date of expiry is set out on the licence, the licence expires on that date. O. Reg. 25/91, s. 1.

2. Form 8 of the Regulation, as made by section 7 of Ontario Regulation 619/89, is revoked and the following substituted:

Form 8

Game and Fish Act

LICENCE TO TRANSPORT AND STOCK FISH

Ministry of
Natural Resources

Under the *Game of Fish Act* and the Regulations, and subject to the limitations of the *Fisheries Act* (Canada) and the Ontario Fisheries Regulations, this licence is granted to:

Name	Mailing Address	Telephone
------	-----------------	-----------

To Transfer

Quantity	Species	Size Age
----------	---------	-------------

FROM WATERS OWNED OR LEASED BY:

Name	Name of hatchery or water	Licence Number
------	---------------------------	----------------

Mailing Address

Location of waters

County	Township	Lot Conc.
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TO STOCK THE ABOVE MENTIONED FISH IN WATERS KNOWN AS:

Name	County	Township	Lot Conc.
------	--------	----------	--------------

LOCATED AT:

Mailing Address	Telephone
-----------------	-----------

OWNED OR OPERATED BY:

Name

Distribute copies to:

- | | | |
|------------------------------|---------------|------------------|
| 1. Purchaser/Permittee | Date of Issue | Expiry Date |
| 2. Private Hatchery/Supplier | | |
| 3. District Preparing Permit | | District Manager |

MUNICIPAL ELECTIONS ACT**O. Reg. 26/91.**

Forms.

Made—January 29th, 1991.

Filed—January 31st, 1991.

**REGULATION TO AMEND
REGULATION 681 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
MUNICIPAL ELECTIONS ACT**

1. Form 28 of Regulation 681 of Revised Regulations of Ontario, 1980, as made by section 2 of Ontario Regulation 409/88, is revoked and the following substituted:

FORM 28 NOTICE OF REGISTRATION

MUNICIPAL ELECTIONS ACT (SECTION 122(1)) PART II

NAME OF CANDIDATE

Initial Registration

Changing Reported Information

Name of candidate (same as will appear on the Nomination Form)		
Permanent Mailing Address		
Business Phone Number	Fax Number	Home Phone Number

NAME OF OFFICE AND MUNICIPALITY

Name of office for which the candidate is seeking election	Ward Number
Name of Municipality	

CHIEF FINANCIAL OFFICER

Name (if other than the candidate)		
Mailing Address		
Business Phone Number	Fax Number	Home Phone Number

AUDITOR (must be appointed if election expenses or contributions exceed \$10,000 and must be licensed under the Public Accountancy Act)

Firm or Individual Accountant		
Contact Person		
Mailing Address		
Business Phone Number	Fax Number	Home Phone Number

OTHER PERSONS AUTHORIZED TO ACCEPT CONTRIBUTIONS (in addition to candidate)

Name
Mailing Address
Name
Mailing Address

NOTE: This completed form must be filed with the municipal clerk, subsection 122(1), on or before Nomination Day.

OTHER PERSONS (cont'd)

Name
Mailing Address
Name
Mailing Address

CAMPAIGN ACCOUNT

Name and Address of Financial Institution
Signing Officer
Mailing Address
Signing Officer
Mailing Address
Signing Officer
Mailing Address

PLACE WHERE CANDIDATE'S RECORDS ARE MAINTAINED (e.g. office, home)

Name of Place	Contact Person	
Mailing Address		
Business Phone Number	Fax Number	Home Phone Number

PLACE WHERE COMMUNICATIONS CAN BE SENT (if different from above)

Name of Place	Contact Person	
Mailing Address		
Business Phone Number	Fax Number	Home Phone Number

DECLARATION OF CANDIDATE

I,
 Name of candidate (please print)
 do declare that the information in this Notice of Registration is to the best of my knowledge and belief true and correct.

 Signature of candidate Date

FORMULE 28

AVIS D'INSCRIPTION

LOI SUR LES ÉLECTIONS MUNICIPALES (PARAGRAPHE 122(1)) PARTIE II

NOM DU CANDIDAT

 Inscription initiale Modifications de renseignements

Nom du candidat (tel qu'il figurera sur la formule de déclaration de candidature)		
Adresse postale permanente		
N° de téléphone au travail	N° de télécopieur	N° de téléphone à domicile

NOM DU POSTE ET DE LA MUNICIPALITÉ

Nom du poste auquel le candidat désire être élu	Quartier n°
Nom de la municipalité	

DIRECTEUR DES FINANCES

Nom (sauf s'il s'agit du candidat)		
Adresse postale		
N° de téléphone au travail	N° de télécopieur	N° de téléphone à domicile

VÉRIFICATEUR (il faut nommer un vérificateur autorisé en vertu de la Loi sur la comptabilité publique si les dépenses ou les contributions reliées à la campagne électorale sont supérieures à 10 000 \$)

Cabinet ou vérificateur indépendant		
Personne à contacter		
Adresse postale		
N° de téléphone au travail	N° de télécopieur	N° de téléphone à domicile

AUTRES PERSONNES AUTORISÉES À ACCEPTER DES CONTRIBUTIONS (en plus du candidat)

Nom
Adresse postale
Nom
Adresse postale

REMARQUE : La présente formule, dûment remplie, doit être déposée auprès du secrétaire municipal, en vertu du paragraphe 122(1), au plus tard le jour de déclaration de candidature.

AUTRES PERSONNES (suite)

Nom
Adresse postale
Nom
Adresse postale

COMPTE DE LA CAMPAGNE ÉLECTORALE

Nom et adresse de l'institution financière
Signataire autorisé
Adresse postale
Signataire autorisé
Adresse postale
Signataire autorisé
Adresse postale

LIEU OÙ SONT CONSERVÉS LES DOSSIERS DU CANDIDAT (c.-à-d. bureau, domicile, etc.)

Nom du lieu	Personne à contacter	
Adresse postale		
N° de téléphone au travail	N° de télécopieur	N° de téléphone à domicile

LIEU OÙ PEUVENT ÊTRE DIRIGÉES LES COMMUNICATIONS (si celui-ci diffère du lieu indiqué ci-dessus)

Nom du lieu	Personne à contacter	
Adresse postale		
N° de téléphone au travail	N° de télécopieur	N° de téléphone à domicile

DÉCLARATION DU CANDIDAT

Je, soussigné(e)
 Nom du candidat (prière d'écrire en lettres moulées)

déclare qu'au mieux de ma connaissance et de ce que je tiens pour véridique, les renseignements contenus dans le présent avis d'inscription sont exacts.

Signature du candidat

Date

2. Form 28A of the Regulation, as made by section 4 of Ontario Regulation 539/88, is revoked.

DAVE COOKE
Minister of Municipal Affairs

Dated at Toronto, this 29th day of January, 1991.

7/91

PESTICIDES ACT

O. Reg. 27/91.

General.

Made—February 9th, 1990.

Filed—January 31st, 1991.

REGULATION TO AMEND REGULATION 751 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE PESTICIDES ACT

1. Clause 1 (m) of Regulation 751 of Revised Regulations of Ontario, 1980, as amended by section 1 of Ontario Regulation 70/84, is further amended by inserting "or" at the end of subclause (viii) and by striking out subclauses (x), (xi), (xii) and (xiii).

2. Section 3 of the Regulation is amended by adding the following subsection:

(3) The Committee shall accept and consider applications for the classification of pesticides from persons registering pesticides under the *Pest Control Products Act* (Canada) or their Canadian agents and shall make recommendations thereon to the Minister. O. Reg. 27/91, s. 2.

3.—(1) Subsection 6 (3) of the Regulation, as remade by section 1 of Ontario Regulation 714/88, is amended by inserting after "Director" in the second line "in writing".

(2) Section 6 of the Regulation, as remade by section 1 of Ontario Regulation 714/88, is amended by adding the following subsection:

(4) The holder of an exterminator's licence shall carry the licence or a legible copy thereof when carrying out an extermination or any other activity authorized by the licence. O. Reg. 27/91, s. 3 (2).

4. Section 9 of the Regulation, as amended by section 2 of Ontario Regulation 161/82, is further amended by adding the following subsection:

(2a) An examiner may designate, in writing, another person to act as a substitute examiner in the place of an examiner for any examination specified in the designation. O. Reg. 27/91, s. 4.

5. Subsection 11 (4) of the Regulation is revoked and the following substituted:

(4) At least one examiner shall be present at a written examination. O. Reg. 27/91, s. 5.

6. Subsection 14 (4) of the Regulation is revoked and the following substituted:

(4) Every applicant whose application is in the process of being considered and every operator shall notify the Director, in writing, of any change in the information furnished in Form 2 or under section 17 within ten days after the effective date of the change. O. Reg. 27/91, s. 6.

7.—(1) Subsection 15 (1) of the Regulation is amended by adding at the end "or a written examination or both".

(2) Subsection 15 (4) of the Regulation, as remade by section 3 of Ontario Regulation 252/81, is revoked and the following substituted:

(4) At least two examiners shall conduct an oral examination for an operator's licence.

(5) At least one examiner shall be present during a written examination for an operator's licence. O. Reg. 27/91, s. 7 (2).

8. Section 18 of the Regulation, as amended by section 4 of Ontario Regulation 252/81, is further amended by adding the following subsection:

(3) Every holder of an operator's licence shall display the licence or a legible copy thereof in a prominent place at each location where the holder carries on business. O. Reg. 27/91, s. 8.

9. Section 20 of the Regulation, as amended by section 1 of Ontario Regulation 223/86, is further amended by adding the following subsections:

(5) A pesticide shall be identified in a Schedule to this Regulation or in *The Ontario Gazette* as a proposed addition to a Schedule by its registration number under the *Pest Control Products Act* (Canada) and by its name.

(6) If the name or other identifying information of a pesticide in a Schedule or in *The Ontario Gazette* does not correspond to the name or other identifying information of the pesticide for the same registration number under the *Pest Control Products Act* (Canada), the pesticide shall be deemed to be the pesticide named under the federal statute for the registration number that appears in the Schedule or *The Ontario Gazette*, as the case may be. O. Reg. 27/91, s. 9.

10. Subsection 21 (2) of the Regulation is revoked and the following substituted:

(2) Subject to subsection (3), no person shall use a pesticide in an extermination except in accordance with the label for that pesticide and this Regulation. O. Reg. 27/91, s. 10.

11. Sections 22 and 23 of the Regulation are revoked and the following substituted:

22. No person shall purchase, acquire, store or use a pesticide unless the person is the holder of a vendor's licence, operator's licence or exterminator's licence authorizing the holder to sell or use the pesticide or a pesticide reformulated from it or is exempt from requiring a vendor's licence, operator's licence or exterminator's licence to sell or use such pesticide or a pesticide reformulated from it. O. Reg. 27/91, s. 11, *part*.

23.—(1) No person shall use water from a well or from a lake, river or other surface water in performing an extermination unless the equipment used in taking the water or in the extermination is equipped with an effective device to prevent back-flow.

(2) No person shall wash any equipment used to perform an extermination in or near a well or in or near a lake, river or other surface water in such a manner that any pesticide may be directly or indirectly discharged into a well or into a lake, river or other surface water. O. Reg. 27/91, s. 11, *part*.

12. Section 26 of the Regulation, as amended by section 6 of Ontario Regulation 252/81, is revoked and the following substituted:

26. Where the original container of a Schedule 1, 2 or 5 pesticide is damaged or broken, the person responsible for the pesticide shall, under the direction of the person who registered the pesticide under the *Pest Control Products Act* (Canada) and to the satisfaction of the

Director, clean up any spillage and decontaminate any area, carrier or commodity that came in contact with the pesticide, and,

- (a) replace the container with a container equivalent to that originally used; or
- (b) dispose of the container and its contents by burying them under fifty centimetres of soil in such a manner that they are not near any watercourse or water table. O. Reg. 27/91, s. 12.

13. Clause 43 (3) (c) of the Regulation is revoked and the following substituted:

- (c) post a placard at least 35 centimetres long and 25 centimetres wide at all entrances to the building or vehicle on which the extermination is to be performed and bearing the word "danger" in red letters at least seven centimetres high on a white background and indicating that an extermination is being performed on the premises.

14. Section 58 of the Regulation is amended by adding the following subsection:

(2) The holder of a permit for a structural extermination by means of a Schedule 1 pesticide is exempt from subsection 5 (1) of the Act for that extermination unless it is,

- (a) an extermination mentioned in section 32 or 52;
- (b) an extermination for the control of termites; or
- (c) an extermination by means of carbon dioxide or ethylene oxide. O. Reg. 27/91, s. 14.

15. The Regulation is amended by adding before section 58a the heading "DDT".

16. Subsection 67 (1) of the Regulation is amended by striking out "hormone-type herbicide" in the fourth line and substituting "hormone type herbicide or TBA, fenac, picloram or paraquat".

17. Section 73 of the Regulation is amended by adding the following subsection:

(2) An agriculturist who is the holder of a permit for a land extermination by means of a Schedule 1 pesticide on the farm land on which the agriculturist is engaged in agricultural or forestry production is exempt from subsection 5 (1) of the Act for that extermination. O. Reg. 27/91, s. 17.

18. Subsections 86 (3) and (4) of the Regulation are revoked and the following substituted:

(3) An applicant for a wholesale vendor's licence or limited wholesale vendor's licence shall submit with the application the name and address of each wholesale outlet to be covered by the licence.

(4) An applicant for a wholesale vendor's licence or limited wholesale vendor's licence shall submit with the application the name and address of at least one person for each wholesale outlet to be covered by the licence, who will be the outlet representative for that wholesale outlet.

(5) An applicant for any class of retail vendor's licence shall submit with the application the name and address of the retail outlet to be covered by the licence.

(6) An applicant for a Class 1 or Class 2 retail vendor's licence shall submit with the application the name and address of at least one person who will be the outlet representative for the retail outlet to be covered by the licence.

(7) Every applicant for any class of vendor's licence whose application is in the process of being considered and every wholesale vendor,

limited wholesale vendor or retail vendor shall notify the Director, in writing, of any change in the information submitted under this section within ten days after the effective date of the change.

(8) For the purposes of this section, an outlet representative is a person who,

- (a) has successfully completed, not more than five years before the person is named an outlet representative and at least every five years thereafter, a course approved by the Director for persons involved in selling pesticides, or otherwise satisfies the Director that the person is qualified to sell pesticides;
- (b) who works full-time at the outlet for which the person is designated outlet representative; and
- (c) is one of,
 - (i) the holder of or the applicant for a vendor's licence for the outlet for which the person is designated outlet representative,
 - (ii) if the licensee or applicant is a partnership, one of the partners,
 - (iii) if the licensee or applicant is a corporation, an officer or director of the corporation, or
 - (iv) an employee of the licensee or applicant.

(9) Every outlet representative shall ensure that all operations of the outlet for which the person is designated are carried out in accordance with the Act and the regulations thereunder.

(10) No person shall sell or offer to sell a pesticide at an outlet for which an outlet representative is not designated.

(11) Subsection (10) does not apply to a sale of a pesticide,

- (a) by a person who is exempted under section 95 or 96 from requiring a retail vendor's licence; or
- (b) at an outlet covered only by a Class 3 retail vendor's licence.

(12) Subsections (4), (6), (10) and (11) shall come into force on the 1st day of April, 1991. O. Reg. 27/91, s. 18.

19. Section 87 of the Regulation is revoked and the following substituted:

87. A holder of a wholesale vendor's licence or limited wholesale vendor's licence who sells at wholesale from more than one wholesale outlet does not require a licence for each outlet if the holder has met the requirements of subsections 86 (3), (4) and (7). O. Reg. 27/91, s. 19, *part*.

87a. Every holder of a wholesale vendor's licence or limited wholesale vendor's licence shall display the licence or a legible copy thereof in a prominent place at each wholesale outlet covered by the licence. O. Reg. 27/91, s. 19, *part*.

20. Clause 89 (d) of the Regulation is amended by striking out "two ounces" in the seventh line and substituting "120 grams".

21. Section 90 of the Regulation is revoked and the following substituted:

90. Every holder of any class of retail vendor's licence shall display the licence or a legible copy thereof in a prominent place in the retail outlet covered by the licence. O. Reg. 27/91, s. 21.

22. Clause 95 (d) of the Regulation is amended by striking out "four ounces" in the seventh line and substituting "120 grams".

23. Sections 98 to 102 of the Regulation are revoked and the following substituted:

STORAGE

98. No person shall store a pesticide in such a manner that the pesticide is likely to come into contact with food or drink intended for human or animal consumption. O. Reg. 27/91, s. 23, *part*.

99.—(1) No person shall leave a Schedule 1, 2, 3, 4, 5 or 6 pesticide unsupervised in a vehicle unless the vehicle is located in a place inaccessible to the public or the pesticide is locked in an enclosed part or compartment of the vehicle.

(2) No vendor, operator, exterminator or agriculturist shall leave a Schedule 1, 2, 3, 4, 5 or 6 pesticide unsupervised in a vehicle unless the vehicle displays the words "Chemical Storage Warning—Authorized Persons Only" in clearly visible block letters. O. Reg. 27/91, s. 23, *part*.

100. No vendor, operator, exterminator or agriculturist shall store a Schedule 1, 2, 3, 4, 5 or 6 pesticide except,

- (a) in such a manner that the pesticide is not likely to impair the health or safety of any person;
- (b) in an area that is maintained in a clean and orderly manner and with sufficient precautions taken to prevent the pesticide from contaminating any other pesticide stored in the same area, or the natural environment;
- (c) in an area that has a warning sign prominently displayed at the entrances thereof bearing the words "Chemical Storage Warning—Authorized Persons Only" in block letters clearly visible; and
- (d) in an area near which there is prominently displayed a list of emergency telephone numbers, including those of the local fire department, hospital and poison control centre. O. Reg. 27/91, s. 23, *part*.

101.—(1) No person shall store a Schedule 1, 2 or 5 pesticide unless,

- (a) the compartment, room or structure in which the pesticide is stored is ventilated to the outside atmosphere;
- (b) a placard is affixed and maintained on the outside of each door leading into the compartment, room or structure in which the pesticide is stored bearing the words "Chemical Storage Warning—Authorized Persons Only" in block letters clearly visible;
- (c) the express permission of the person responsible is required to enter the compartment, room or structure in which the pesticide is stored; and
- (d) where the pesticide is stored outdoors, sufficient security measures are taken so that the express permission of the person responsible is required to have access to the pesticide, and a placard is maintained near the pesticide bearing the words "Chemical Storage Warning—Authorized Persons Only" in block letters clearly visible.

(2) No vendor, operator, exterminator or agriculturist shall store a Schedule 1, 2 or 5 pesticide except in an area,

- (a) that has no floor drain that leads into or drains directly or indirectly into a storm sewer, sanitary sewer or water-course; and
- (b) near which adequate respiratory protection and adequate protective clothing are kept readily available for emergency purposes. O. Reg. 27/91, s. 23, *part*.

102.—(1) No vendor, operator, exterminator or agriculturist shall store a Schedule 1 or 5 pesticide except in an area that is used exclusively for the storage of pesticides.

(2) No wholesale vendor or limited wholesale vendor shall store a Schedule 1 or 5 pesticide except in a room or compartment that has a fire resistance rating of not less than one hour and all doors and door frames of which have a fire resistance rating of not less than forty-five minutes. O. Reg. 27/91, s. 23, *part*.

24.—(1) Section 104 of the Regulation is amended by striking out "any Schedule 1, 2, 3 or 5" in the second and third lines and substituting "a Schedule 1, 2, 3, 4, 5 or 6".

(2) Clause 104 (c) of the Regulation is amended by striking out "any Schedule 1, 2, 3 or 5" in the first line and substituting "a Schedule 1, 2, 3, 4, 5 or 6".

25. Section 107 of the Regulation is revoked and the following substituted:

107. No person shall transport or cause or permit the transportation of a quantity of pesticides in excess of 500 litres by a vehicle operated on any highway or road unless the vehicle has a warning sign prominently displayed on and affixed to the outside of the vehicle warning of the presence of pesticides. O. Reg. 27/91, s. 25.

26. The heading to Form 4 of the Regulation is amended by striking out "PHOSTOXIN" and substituting "ALUMINUM PHOSPHIDE".

27. Forms 8 and 9 of the Regulation are revoked and the following substituted:

Form 8

Pesticides Act

**APPLICATION FOR A LIMITED WHOLESALE
OR
WHOLESALE VENDOR'S LICENCE**

The application must be made out in the name of the corporation, partnership or individual who owns the wholesale business and not merely in the name of the business manager or official representative.

Any individual or corporation may apply alone or together with others for a Limited Wholesale Vendor's Licence or a Wholesale Vendor's Licence.

1. For each applicant who is an individual, complete the following:

Name Telephone
Address Postal Code
Lot Concession .. Township

2. For each applicant that is a corporation, complete the following:

Corporation Name Telephone
Address Postal Code

Please attach a list of the names, addresses and telephone numbers of all directors and officers of each corporation.

3. For each official representative of the vendor, complete the following:

Name Telephone
Address Postal Code

4. A Limited Wholesale Vendor's Licence or a Wholesale Vendor's Licence may cover several stores or wholesale outlets provided the outlets are listed in the application for the licence or in a notice of change of information submitted to the Director.

For each outlet to be covered by the licence applied for, complete the following, including the trade name or business name under which the outlet will operate:

Store Name Telephone
Address Postal Code
Lot Concession Township
Outlet Representative Home Tel:
Address Postal Code
Outlet Representative Home Tel:
Address Postal Code
Outlet Representative Home Tel:
Address Postal Code

Application is hereby made for a:

- () Limited Wholesale Vendor's Licence or
() Wholesale Vendor's Licence

If there is more than one applicant, the applicants carry on or intend to carry on business in partnership or in association, and are all the partners or associates carrying on the business together.

Date Signature of Applicant or Applicant's Official Representative

O. Reg. 27/91, s. 27, part.

Form 9

Pesticides Act

APPLICATION FOR A RETAIL VENDOR'S LICENCE

A separate Retail Vendor's Licence is required for each store or retail outlet.

The application must be made out in the name of the corporation, partnership or individual who owns the business at that store and not merely in the name of the store manager or official representative.

Any individual or corporation may apply alone or together with others for a Retail Vendor's Licence.

- 1. For each applicant who is an individual, complete the following: Name Telephone Address Postal Code Lot Concession Township
2. For each applicant that is a corporation, complete the following: Corporation Name Telephone Address Postal Code

Please attach a list of the names, addresses and telephone numbers of all directors and officers of each corporation.

3. For each official representative of the vendor, complete the following:

Name Telephone
Address Postal Code

4. For the retail outlet to be covered by the Retail Vendor's Licence applied for, complete the following, including the trade name or business name under which the retail outlet will operate:

Store Name Telephone
Address Postal Code
Lot Concession Township

5. For the retail outlet to be covered by a Class 1 or 2 Retail Vendor's Licence, complete the following:

Outlet Representative Home Tel:
Address Postal Code
Outlet Representative Home Tel:
Address Postal Code
Outlet Representative Home Tel:
Address Postal Code

Application is hereby made for a Vendor's Licence:

- () Class 1 Retail
() Class 2 Retail
() Class 3 Retail

If there is more than one applicant, the applicants carry on or intend to carry on business in partnership or in association, and are all the partners or associates carrying on the business together.

Date Signature of Applicant or Applicant's Official Representative

O. Reg. 27/91, s. 27, part.

7/91

HEALTH INSURANCE ACT

O. Reg. 28/91.
General.
Made—January 31st, 1991.
Filed—February 1st, 1991.

REGULATION TO AMEND
REGULATION 452 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
HEALTH INSURANCE ACT

1. Item 8 of Part II of Schedule 4 to Regulation 452 of Revised Regulations of Ontario, 1980 is revoked.

7/91

MILK ACT

O. Reg. 29/91.

Milk Producers, Licences, Quotas, Pools and Transportation.
Made—February 1st, 1991.
Filed—February 1st, 1991.

2. Form I of the Regulation is amended by inserting after "following" in the tenth line "milk house" and by striking out "Toronto" in the fourteenth line and substituting "Mississauga".

3. This Regulation comes into force on the 1st day of February, 1991.

THE ONTARIO MILK MARKETING BOARD:

JOHN CORE
Chair

H. PARKER
Secretary

**REGULATION TO AMEND
ONTARIO REGULATION 45/82
MADE UNDER THE
MILK ACT**

1. Subsections 5 (1) and (2) of Ontario Regulation 45/82, as remade by section 1 of Ontario Regulation 56/90, are revoked and the following substituted:

Dated at Mississauga, this 1st day of February, 1991.

7/91

(1) Every producer shall pay licence fees at the rate of \$1.07 for each hectolitre or fraction thereof of milk sold to the marketing board.
O. Reg. 29/91, s. 1, *part.*

Publications under the Regulations Act Publications en vertu de la Loi sur les règlements

1991—02—23

ONTARIO GUARANTEED ANNUAL INCOME ACT

O. Reg. 30/91.

Guaranteed Income Limit.
Made—January 31st, 1991.
Filed—February 5th, 1991.

REGULATION MADE UNDER THE ONTARIO GUARANTEED ANNUAL INCOME ACT

GUARANTEED INCOME LIMIT

1. Commencing with January, 1991, the guaranteed income limit for purposes of,

- (a) subclause 1 (j) (i) of the Act is \$10,316.52;
- (b) subclause 1 (j) (ii) of the Act is \$8,551.80;
- (c) subclause 1 (j) (iii) of the Act is \$8,551.80; and
- (d) subclause 1 (j) (iv) of the Act is \$17,103.60. O. Reg. 30/91, s. 1.

2. Ontario Regulation 641/90 is revoked.

3. This Regulation shall be deemed to have come into force on the 1st day of January, 1991.

8/91

FINANCIAL ADMINISTRATION ACT

O. Reg. 31/91.

Destruction of Securities.
Made—February 4th, 1991.
Filed—February 5th, 1991.

REGULATION MADE UNDER THE FINANCIAL ADMINISTRATION ACT

DESTRUCTION OF SECURITIES

1.—(1) The Treasurer may destroy securities issued and held by the Province of Ontario if the securities are of no further value because they have been paid, cancelled or redeemed by the Province.

(2) The Treasurer shall prepare and retain a destruction certificate listing the destroyed securities. O. Reg. 31/91, 2. 1.

8/91

PROVINCIAL PARKS ACT

O. Reg. 32/91.

General.
Made—January 31st, 1991.
Filed—February 6th, 1991.

REGULATION TO AMEND REGULATION 822 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE PROVINCIAL PARKS ACT

1. Subsection 33 (1) of Regulation 822 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 65/90, is revoked and the following substituted:

(1) The fees payable for the use of a provincial park and its facilities are set out in Schedules 1, 2 and 3. O. Reg. 32/91, s. 1.

2. Subsection 33 (3a) of the Regulation, as made by section 1 of Ontario Regulation 87/88 and amended by section 2 of Ontario Regulation 291/89, section 1 of Ontario Regulation 65/90 and section 6 of Ontario Regulation 128/90, is further amended by striking out "3" in the third line and substituting "4".

3. Schedules 1, 2 and 3 to the Regulation, as made by section 2 of Ontario Regulation 65/90, are revoked and the following substituted:

Schedule 1

FEES FOR PERSONS OTHER THAN SENIOR CITIZENS

	<u>Full Rate</u>	<u>Rate if water is not provided</u>
1. Camp-site and vehicle permit per night:		
(a) camp-site with electricity	\$14.72	\$10.28
(b) provincial park with showers	12.38	Not applicable
(c) provincial park without showers	10.98	8.18
(d) additional vehicle permit	5.37	3.97
2. Interior camping permit per night:		
(a) per person eighteen years of age or over but not a senior citizen	3.04	3.04
(b) per person under eighteen years of age but not over twelve years of age	1.64	1.64
(c) per person under twelve years of age	None	None
3. Reservation fee for camp-site and vehicle permit or interior camping permit	4.21	4.21

4. Day use:

Schedule 3

(a) daily vehicle permit 5.37 5.37

(b) seasonal vehicle permit (Apr. 1 – Oct. 31) 32.24 32.24

(c) seasonal vehicle permit (Nov. 1 – Mar. 31) 21.50 21.50

(d) bus permit 31.31 31.31

5. Boat mooring permit 6.31 6.31

6. Aircraft landing:

(a) daily permit 5.37 5.37

(b) seasonal permit (Apr. 1 – Oct. 31) 32.24 32.24

(c) seasonal permit (Nov. 1 – Mar. 31) 21.50 21.50

O. Reg. 32/91, s. 3, part.

GROUP CAMPING FEES

Group camping per night:

(a) basic group site fee \$8.18 \$8.18

(b) additional fee for each member of the group who is eighteen years of age or over but not a senior citizen 1.64 1.64

(c) additional fee for a night other than a Friday or Saturday night for each member of the group who is a senior citizen .93 .93

(d) additional fee for a Friday or Saturday night for each member of the group who is a senior citizen None None

O. Reg. 32/91, s. 3, part.

Schedule 2

GENERAL SENIOR CITIZEN FEES

	Week Night	Friday or Saturday Night	
		Full Rate	Rate if water is not provided
1. Camp-site and vehicle permit per night for parties that consist of senior citizens and no other persons other than their spouses and persons under eighteen years of age:			
(a) camp-site with electricity	None	\$7.48	\$5.14
(b) provincial park with showers	None	6.07	Not applicable
(c) provincial park without showers	None	5.37	4.21
(d) additional vehicle permit	None	2.57	1.87
2. Interior camping permit per night per person	None	1.64	1.64
3. Reservation fee for camp-site and vehicle permit or interior camping permit	4.21	4.21	4.21
4. Day use	None	None	None
5. Boat mooring permit	None	3.27	3.27

O. Reg. 32/91, s. 3, part.

4. The Regulation is amended by adding the following Schedule:

Schedule 4

FEES FOR CAMPING IN PROVINCIAL PARKS NAMED IN THE TABLE TO SUBSECTION 33 (3a)

1. Camping per night per person:
- (a) non-residents of Canada,
- (i) eighteen years of age or over 3.04
- (ii) under eighteen years of age None
- (b) residents of Canada None

O. Reg. 32/91, s. 4.

5. This Regulation comes into force on the 1st day of April, 1991.

8/91

FARM PRODUCTS GRADES AND SALES ACT

O. Reg. 33/91.

Grain.

Made—January 31st, 1991.

Filed—February 7th, 1991.

REGULATION TO AMEND
ONTARIO REGULATION 653/84
MADE UNDER THE

FARM PRODUCTS GRADES AND SALES ACT

1.—(1) Clause 1 (b) of Ontario Regulation 653/84, as remade by section 1 of Ontario Regulation 405/89, is amended by striking out "Soya-Bean" in the second line and substituting "Soybean".

(2) Clause 1 (c) of the Regulation, as remade by section 1 of Ontario Regulation 405/89, is amended by striking out "soya-beans" in the first line and substituting "soybeans".

8/91

EDUCATION ACT

O. Reg. 34/91.

Ontario Teacher's Qualifications.

Made—January 31st, 1991.

Approved—January 31st, 1991.

Filed—February 7th, 1991.

**REGULATION TO AMEND
REGULATION 269 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
EDUCATION ACT**

1. Clause 20 (1) (b) of the Regulation, as remade by section 12 of Ontario Regulation 222/86, is revoked and the following substituted:

- (b) is entitled under the laws of Canada to obtain employment in Canada as a teacher, if the candidate is not a Canadian citizen or a permanent resident of Canada;

2. Clause 21 (d) of the Regulation, as remade by section 14 of Ontario Regulation 222/86, is revoked and the following substituted:

- (d) is entitled under the laws of Canada to obtain employment in Canada as a teacher, if the candidate is not a Canadian citizen or a permanent resident of Canada,

3. Clause 22 (1) (c) of the Regulation, as remade by section 15 of Ontario Regulation 222/86, is revoked and the following substituted:

- (c) is entitled under the laws of Canada to obtain employment in Canada as a teacher, if the candidate is not a Canadian citizen or a permanent resident of Canada; and

4.—(1) Section 22a of the Regulation, as made by section 1 of Ontario Regulation 111/86 and amended by section 17 of Ontario Regulation 222/86 and section 10 of Ontario Regulation 157/87, is revoked and the following substituted:

22a.—(1) The Minister may grant to a candidate a Provisional Letter of Standing valid for one year for the teaching of a Native language as a second language if the dean of a college or faculty of education or the director of a school of education in Ontario reports to the Deputy Minister that the candidate,

- (a) has demonstrated an acceptable degree of fluency in the Algonquian or Iroquoian language;
- (b) has complied with section 2;
- (c) has successfully completed the first session of an approved program for Teacher of a Native Language as a Second Language; and
- (d) is entitled under the laws of Canada to obtain employment in Canada as a teacher, if the candidate is not a Canadian citizen or a permanent resident of Canada.

(2) A Provisional Letter of Standing granted under subsection (1) shall be in Form 4, where the program referred to in clause (1) (c) was taken in English, or in Form 4a, where the program was taken in French. O. Reg. 34/91, s. 4 (1).

(2) Section 22b of the Regulation, as made by section 1 of Ontario Regulation 111/86, is revoked and the following substituted:

22b. The Minister may extend a candidate's Provisional Letter of Standing for one year for the teaching of a Native language as a second language if the dean of a college or faculty of education or the director

of a school of education in Ontario reports to the Deputy Minister that the candidate,

- (a) holds a Provisional Letter of Standing granted under section 22a;
- (b) has submitted evidence of at least one year of successful teaching experience in a Native language as a second language, as certified by,
- (i) the appropriate supervisory officer, where the successful teaching experience was in Ontario and was not in a school operated on an Indian reserve, or
- (ii) the appropriate supervisory official, where the successful teaching experience was outside Ontario or in a school operated on an Indian reserve in Ontario; and
- (c) has successfully completed the second session of an approved program for Teacher of a Native Language as a Second Language after completing the experience referred to in clause (b). O. Reg. 34/91, s. 4 (2).

(3) Section 22c of the Regulation, as made by section 1 of Ontario Regulation 111/86 and amended by section 18 of Ontario Regulation 222/86 and section 11 of Ontario Regulation 157/87, is revoked and the following substituted:

22c.—(1) The Minister may grant to a candidate a Permanent Letter of Standing for the teaching of a Native language as a second language if the dean of a college or faculty of education or the director of a school of education in Ontario reports to the Deputy Minister that the candidate,

- (a) holds a Provisional Letter of Standing extended under section 22b;
- (b) has submitted evidence of at least one year of successful teaching experience in a Native language as a second language, following the completion of the teaching experience referred to in section 22b, as certified by,
- (i) the appropriate supervisory officer, where the successful teaching experience was in Ontario and was not in a school operated on an Indian Reserve, or
- (ii) the appropriate supervisory official, where the successful teaching experience was outside Ontario or in a school operated on an Indian Reserve in Ontario; and
- (c) has successfully completed the third session of an approved program for Teacher of a Native Language as a Second Language after completing the successful teaching experience referred to in clause (b).

(2) The Permanent Letter of Standing granted under subsection (1) shall be in Form 9, where the program referred to in clause (1) (c) was taken in English, or in Form 9a, where the program was taken in French. O. Reg. 34/91, s. 4 (3).

5. Clause 25 (2) (b) of the Regulation, as remade by section 22 of Ontario Regulation 222/86, is revoked and the following substituted:

- (b) is entitled under the laws of Canada to obtain employment in Canada as a teacher, if the candidate is not a Canadian citizen or a permanent resident of Canada;

6.—(1) Clause 27 (a) of the Regulation, as remade by section 2 of Ontario Regulation 194/85, is revoked and the following substituted:

- (a) holds or has been recommended by the dean or the director for an Ontario Teacher's Certificate or a Temporary Letter of Standing;

(2) Clause 27 (c) of the Regulation, as remade by section 2 of Ontario Regulation 194/85, is revoked and the following substituted:

- (c) has successfully completed an approved program leading to qualifications in an additional area of concentration in the primary division, the junior division, the intermediate division in general studies or the senior division in general studies, or has qualifications that the Minister considers equivalent to the successful completion of such a program,

7. Clauses 28 (1) (a) and (b) of the Regulation, as remade by section 3 of Ontario Regulation 194/85, are revoked and the following substituted:

- (a) holds or has been recommended by the dean or the director for an Ontario Teacher's Certificate or a Temporary Letter of Standing;
- (b) has successfully completed an approved program leading to additional qualifications in a subject listed in Schedule C, or has qualifications that the Minister considers equivalent to the successful completion of such a program;

8. Clauses 30 (a) and (b) of the Regulation, as remade by section 5 of Ontario Regulation 194/85, are revoked and the following substituted:

- (a) holds or has been recommended by the dean or the director for an Ontario Teacher's Certificate or a Temporary Letter of Standing; and
- (b) has successfully completed an approved program leading to additional qualifications in a subject listed in Schedule D, or has qualifications that the Minister considers equivalent to the successful completion of such a program,

9. Subclause 31 (a) (i) of the Regulation, as remade by section 6 of Ontario Regulation 194/85, is revoked and the following substituted:

- (i) all qualifications listed in Schedule E except Computers in the Classroom, Co-operative Education, Guidance, Industrial Arts, Media, Multiculturalism in Education, Music – Instrumental, Music – Vocal (Primary, Junior), Music – Vocal (Intermediate, Senior), Special Education, The Blind, The Deaf, The Deaf/Blind and Visual Arts, the candidate's Ontario Teacher's Qualifications Record Card or the record of qualification in respect of the teacher held by the Ministry has an entry showing qualifications in the primary division, the junior division, the intermediate division in general studies or the senior division in general studies, or

10. Clause 32 (c) of the Regulation, as remade by section 7 of Ontario Regulation 194/85, is amended by striking out "officer" in the last line and substituting "official".

11. Clause 33 (c) of the Regulation, as remade by section 8 of Ontario Regulation 194/85, is revoked and the following substituted:

- (c) submits evidence of at least two years of successful teaching experience, including at least one year of experience in Ontario in the subject referred to in clause (b), certified by the appropriate supervisory officer and, if some of the experience was outside Ontario, by the appropriate supervisory official; and

12.—(1) Clause 37 (1) (c) of the Regulation, as remade by section 9 of Ontario Regulation 194/85, is revoked and the following substituted:

- (c) submits evidence of at least two years of successful teaching experience, including at least one year of experience in Ontario in the subject or one or both of the subjects in which the Honours Specialist qualification is sought, certified by the appropriate supervisory officer and, if some of the experience was outside Ontario, by the appropriate supervisory official; and

(2) Clause 37 (4) (c) of the Regulation, as remade by section 9 of Ontario Regulation 194/85, is revoked and the following substituted:

- (c) submits evidence of at least two years of successful teaching experience, including at least one year of experience in Ontario in technological studies, certified by the appropriate supervisory officer and, if some of the experience was outside Ontario, by the appropriate supervisory official;

(3) Subsection 37 (5) of the Regulation, as remade by section 9 of Ontario Regulation 194/85, is amended by inserting after "Industrial Arts" in the sixth line "or Computer Studies — Computer Technology".

13. Section 49 of the Regulation is revoked and the following substituted:

49.—(1) The Minister may grant to a board a Letter of Permission for a period specified in the letter if the director of education or secretary of the board submits to the appropriate Regional Director of Education of the Ministry, in duplicate, an application in Form 7 or 7a together with evidence that,

- (a) the board has advertised at least three times in a daily newspaper having provincial circulation in Ontario a position for which a teacher is required under the regulations;
- (b) at least one advertisement appeared more than one month before the start of employment;
- (c) seven days have passed since the date of the final advertisement; and
- (d) no teacher has applied for the position or no teacher who has applied for the position has accepted it.

(2) The period for which a Letter of Permission is granted,

- (a) shall not exceed one year; and
- (b) shall not extend beyond the end of a school year unless,
 - (i) the period begins after the end of a school year and ends before the beginning of the next school year, and
 - (ii) at least one of the advertisements referred to in clause (1) (a) appeared after the 30th day of April in the year in which the application is submitted. O. Reg. 34/91, s. 13.

14. Section 50 of the Regulation is revoked and the following substituted:

50.—(1) The Minister may grant to a board a Temporary Letter of Approval for a period specified in the letter if the director of education or secretary of the board submits to the appropriate Regional Director of Education of the Ministry, in duplicate, an application in Form 8 or 8a certifying that,

- (a) the board finds it necessary to assign or appoint a teacher to teach a subject or hold a position who does not hold the qualifications required under the regulations for teaching the subject or holding the position; and
- (b) the teacher in respect of whom the application is made,

- (i) holds an Ontario Teacher's Certificate or a Letter of Standing, and
- (ii) is considered competent to teach the subject or hold the position.

(2) The period for which a Temporary Letter of Approval is granted,

- (a) shall not exceed one year; and
- (b) shall not extend beyond the end of a school year unless the period begins after the end of a school year and ends before the beginning of the next school year. O. Reg. 34/91, s. 14.

15. Schedule A to the Regulation, as amended by section 1 of Ontario Regulation 27/84 and section 1 of Ontario Regulation 703/87, is revoked and the following substituted:

Schedule A

Intermediate and Senior Division Options
taken in English or French

Business Studies – Accounting
Business Studies – Data Processing
Business Studies – Marketing and Merchandising
Business Studies – Information Management
Classical Studies – Greek
Classical Studies – Latin
Computer Science
Dance
Dramatic Arts
Economics
English (First language)
English (Second language) – anglais
Environmental Science
Family Studies
French (Second language)
French (First language) – français
Geography
History
Individual and Society
Industrial Arts
International Languages
Law
Mathematics
Music – Instrumental
Music – Vocal
Native Language (Second language)
Native Studies
Politics
Physical and Health Education
Science – General
Science – Biology
Science – Chemistry
Science – Geology
Science – Physics
Visual Arts

O. Reg. 34/91, s. 15.

16. Schedule E to the Regulation, as amended by section 4 of Ontario Regulation 567/82, section 17 of Ontario Regulation 157/87, section 2 of Ontario Regulation 703/87 and section 1 of Ontario Regulation 415/88, is revoked and the following substituted:

Schedule E

Three Session Qualifications
taken in English or French

Business Studies – Accounting
Business Studies – Data Processing
Business Studies – Entrepreneurship Studies
Business Studies – Marketing and Merchandising
Business Studies – Information Management

Computer Studies – Computer Science
Computers in the Classroom
Co-operative Education
Dance
Dramatic Arts
English as a Second Language
Environmental Science
Family Studies
French as a Second Language
Guidance
Industrial Arts
Intermediate Education
International Languages
Junior Education
Librarianship
Mathematics in Primary and Junior Education
Media
Multiculturalism in Education
Music – Instrumental
Music – Vocal (Primary, Junior)
Music – Vocal (Intermediate, Senior)
Native Language as a Second Language
Physical and Health Education (Primary, Junior)
Physical and Health Education (Intermediate, Senior)
Primary Education
Reading
Religious Education
Science in Primary and Junior Education
Special Education
The Blind
The Deaf
The Deaf/Blind
Visual Arts

O. Reg. 34/91, s. 16.

17. Schedule F to the Regulation, as amended by section 3 of Ontario Regulation 703/87, is revoked and the following substituted:

Schedule F

Honour Specialist Qualifications
taken in English or French

Biology
Business Education
Chemistry
Computer Science
Contemporary Studies
Dance
Dramatic Arts
English (First language)
English (Second language) – anglais
Environmental Science
Family Studies
French (Second language)
French (First language) – français
Geography
Geology
Greek
History
International Languages
Latin
Mathematics
Music
Physical and Health Education
Physics
Science
Visual Arts

O. Reg. 34/91, s. 17.

18. Forms 8 and 8a of the Regulation are revoked and the following substituted:

Form 8

Education Act

APPLICATION FOR TEMPORARY LETTER OF APPROVAL

To the Regional Director of Education of the Ministry:

On behalf of (name of board)

A TEMPORARY LETTER OF APPROVAL is requested to employ (name in full)

Social Insurance Number

Basic Certification

as a (teacher, principal, etc.)

of (subject, division, school)

from 19 to 19 (date) (date)

I certify that the Board finds it necessary to appoint or assign the teacher named above who does not hold the qualifications required by the regulations for the position but is considered competent to carry out the duties of the position.

Date 19 Director of Education or Secretary of the Board

TEMPORARY LETTER OF APPROVAL IS GRANTED

Date 19 Minister of Education

Form 8a

Loi sur l'éducation

DEMANDE D'APPROBATION TEMPORAIRE

Au directeur régional de l'Éducation du ministère :

Au nom du (nom du conseil scolaire)

Une APPROBATION TEMPORAIRE est demandée pour l'emploi de (nom au complet)

Numéro d'assurance sociale

Brevet de base

en qualité de (enseignant, directeur d'école, etc.)

de (matière, cycle, école)

du 19 au 19

Je certifie que le conseil scolaire estime nécessaire de nommer ou

d'affecter à ce poste l'enseignant susnommé qui ne possède pas les qualifications requises par les règlements, mais qui est jugé compétent pour en exercer les fonctions.

Date 19 Le directeur de l'Éducation ou le secrétaire du conseil scolaire

LETTRE D'APPROBATION TEMPORAIRE ACCORDÉE

Date 19 Le ministre de l'Éducation

O. Reg. 34/91, s. 18.

MARION BOYD Minister of Education

Dated at Toronto, this 31st day of January, 1991.

8/91

RETAIL SALES TAX ACT

O. Reg. 35/91.

Definitions by Minister. Made—February 7th, 1991. Filed—February 8th, 1991.

REGULATION TO AMEND REGULATION 903 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE RETAIL SALES TAX ACT

1.—(1) Subsection 6 (3) of Regulation 903 of Revised Regulations of Ontario, 1980, as remade by section 2 of Ontario Regulation 109/89, is amended by striking out "three" in the second line and substituting "four".

(2) Subsection 6 (9) of the Regulation, as made by section 2 of Ontario Regulation 109/89, is amended by striking out "three" in the sixth line and substituting "four".

2. Clause 12 (5) (a) of the Regulation, as made by section 2 of Ontario Regulation 168/90, is amended by striking out "three" in the second line and substituting "four".

3. Clause 23 (8) (a) of the Regulation, as made by section 3 of Ontario Regulation 168/90, is amended by striking out "three" in the second line and substituting "four".

4. Clause 25 (a) of the Regulation, as made by section 11 of Ontario Regulation 568/83, is amended by striking out "sixty" in the second line and substituting "seventy-two".

5. The Regulation is amended by adding the following section:

17.—(1) For the purpose of clause 2b (3) (d) of the Act, a purchaser who leases, for a period of less than thirty days, tangible personal property to which pneumatic tires are attached or in connection with which the tires are supplied shall pay the tax imposed by the Act in the amount of 15 cents for each day in the lease period.

(2) This section applies to leases entered into on or after the 28th day of January, 1991. O. Reg. 35/91, s. 5.

6.—(1) This Regulation, except section 5, shall be deemed to have come into force on the 1st day of January, 1991.

(2) Section 5 shall be deemed to have come into force on the 28th day of January, 1991.

7. Regulation 903 of Revised Regulations of Ontario, 1980, as it read on the 31st day of December, 1990, continues to apply to sales made before the 1st day of January, 1991.

SHELLEY WARK-MARTYN
Minister of Revenue

Dated at Toronto, this 7th day of February, 1991.

8/91

FARM PRODUCTS MARKETING ACT

O. Reg. 36/91.

By-Laws For Local Boards.

Made—January 31st, 1991.

Filed—February 8th, 1991.

**REGULATION TO AMEND
REGULATION 353 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
FARM PRODUCTS MARKETING ACT**

1. Section 4 of Regulation 353 of Revised Regulations of Ontario, 1980 is revoked and the following substituted:

4.—(1) At the first meeting after every general election or appointment of the members of a local board, it shall elect from its members a chair and a vice-chair, and may elect a second vice-chair.

(2) The chair shall, when present, preside at all meetings of the local board.

(3) During the chair's absence or inability to act, a vice-chair may perform the duties of the chair.

(4) If neither the chair nor a vice-chair is present at a meeting, the local board may elect a chair for the purpose of that meeting from among the members present.

(5) The chair and vice-chairs of a local board shall hold office until their successors are elected. O. Reg. 36/91, s. 1.

8/91

Publications under the Regulations Act

Publications en vertu de la Loi sur les règlements

1991-03-02

PLANNING ACT, 1983**O. Reg. 37/91.**

Zoning Areas—Municipality of Metropolitan Toronto,
City of Toronto.

Made—February 6th, 1991.

Filed—February 12th, 1991.

municipally as 235 Queen's Quay West (Shipdeck Stage). O. Reg.
38/91, s. 1.

FRANCES LANKIN

Minister of Municipal Affairs

Dated at Toronto, this 6th day of February, 1991.

9/91

PLANNING ACT, 1983**O. Reg. 39/91.**

Zoning Areas—Municipality of Metropolitan Toronto,
City of Toronto.

Made—February 6th, 1991.

Filed—February 12th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 674/89 MADE UNDER THE PLANNING ACT, 1983

1. Ontario Regulation 674/89 is amended by adding the following section:

5.—(1) Despite subsection 3 (1), a public art gallery and hall with a maximum height of 14.2 metres may be erected and used on the land described in subsection (2).

(2) Subsection (1) applies to that parcel of land in the City of Toronto in The Municipality of Metropolitan Toronto designated as parts 1, 2, 3, 5 and 6 on Plan 66R-16095 deposited in the Land Registry Office for the Land Titles Division of Metropolitan Toronto (No. 66), and known municipally as 225 Queen's Quay West (duMaurier Theatre Centre). O. Reg. 37/91, s. 1.

FRANCES LANKIN

Minister of Municipal Affairs

Dated at Toronto, this 6th day of February, 1991.

9/91

PLANNING ACT, 1983**O. Reg. 38/91.**

Zoning Areas—Municipality of Metropolitan Toronto,
City of Toronto.

Made—February 6th, 1991.

Filed—February 12th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 674/89 MADE UNDER THE PLANNING ACT, 1983

1. Ontario Regulation 674/89 is amended by adding the following section:

6.—(1) Despite subsection 3 (1), an open air theatre, including associated access routes, back stage areas, landscaping and a roof structure and columns with a maximum height of 21 metres may be erected and used on the land described in subsection (2).

(2) Subsection (1) applies to that parcel of land in the City of Toronto in The Municipality of Metropolitan Toronto designated as parts 1, 2, 3 and 4 on Plan 66R-15997, deposited in the Land Registry Office for the Land Titles Division of Metropolitan Toronto (No. 66), and known

REGULATION TO AMEND ONTARIO REGULATION 674/89 MADE UNDER THE PLANNING ACT, 1983

1. Ontario Regulation 674/89 is amended by adding the following section:

7.—(1) In this section,

“community centre” means a building used for community purposes including arts, crafts, physical, social, charitable or educational activities, but not used for a commercial purpose;

“day nursery” means a premises that receives children primarily for the purpose of providing temporary care or guidance or both, for continuous periods not exceeding twenty-four hours, if the children are under ten years of age or, if they have a developmental handicap, under eighteen years of age.

(2) Despite subsection 3 (1), a day nursery with a maximum gross floor area of 250 square metres and a community centre with a maximum gross floor area of 280 square metres, together with associated access routes, landscaping, outdoor play areas, structures and four parking spaces may be erected and used on the land described in subsection (3).

(3) Subsection (2) applies to that parcel of land in the City of Toronto in The Municipality of Metropolitan Toronto described as Part 1 and all of Part 6 that is west of the westerly limit of Part 3 on Plan 63R-3786, deposited in the Land Registry Office for the Registry Division of Toronto (No. 63), and known municipally as 627 Queen's Quay West. O. Reg. 39/91, s. 1.

FRANCES LANKIN

Minister of Municipal Affairs

Dated at Toronto, this 6th day of February, 1991.

9/91

HIGHWAY TRAFFIC ACT**O. Reg. 40/91.**

Speed Limits in Territory
Without Municipal Organization.

Made—February 13th, 1991.

Filed—February 14th, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 708/83
MADE UNDER THE
HIGHWAY TRAFFIC ACT**

1. Ontario Regulation 708/83 is amended by adding the following Schedules:

Schedule 11

1. That part of the highway known as Perivale Road in the Township of Campbell in the Territorial District of Manitoulin beginning at a point situate at its intersection with the westerly limit of the roadway known as Perivale Road East and extending westerly for a distance of 880 metres.

2. Fifty kilometres per hour. O. Reg. 40/91, s. 1, *part*.

Schedule 12

1. That part of the highway known as Perivale Road East in the hamlet of Spring Bay in the Township of Campbell in the Territorial District of Manitoulin beginning at a point situate at its intersection with the northerly limit of King's Highway known as No. 542 and extending northerly for a distance of 300 metres.

2. Sixty kilometres per hour. O. Reg. 40/91, s. 1, *part*.

ED PHILIP

Minister of Transportation

Dated at Toronto, this 13th day of February, 1991.

9/91

HIGHWAY TRAFFIC ACT

O. Reg. 41/91.

Speed Limits.

Made—February 13th, 1991.

Filed—February 14th, 1991.

**REGULATION TO AMEND
REGULATION 490 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
HIGHWAY TRAFFIC ACT**

1.—(1) Paragraph 16 of Part 3 of Schedule 1 to Regulation 490 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 4/91, is revoked and the following substituted:

16. That part of the King's Highway known as No. 2 lying between a point situate 160 metres measured easterly from its intersection with the centre line of the roadway known as Banner Road in the hamlet of Thamesford in the County of Oxford and a point situate at its intersection with the centre line of the roadway known as Middlesex County Road No. 25 (Crumlin Road) in the City of London in the County of Middlesex.

(2) Paragraph 8 of Part 6 of Schedule 1, as remade by section 1 of Ontario Regulation 4/91, is revoked and the following substituted:

8. That part of the King's Highway known as No. 2 in the Village of Wardsville in the County of Middlesex lying between a point situate 150 metres measured easterly from its intersection with the centre line of the roadway known as Mill Lane and a point situate 360 metres measured westerly from its intersection with the centre line of the roadway known as Middlesex County Road No. 1 (Hagerty Street).

2.—(1) Paragraph 1 of Part 3 of Schedule 6 to the Regulation, as remade by section 2 of Ontario Regulation 117/84, is revoked and the following substituted:

1. That part of the King's Highway known as No. 7 in the County of Lambton lying between a point situate 350 metres measured easterly from its intersection with the centre line of the roadway known as Blackwell Road in the Town of Clearwater and a point situate 455 metres measured westerly from its intersection with the centre line of the King's Highway known as No. 21 in the Township of Plympton.

(2) Paragraph 1 of Part 5 of Schedule 6, as remade by section 2 of Ontario Regulation 117/84, is revoked and the following substituted:

1. That part of the King's Highway known as No. 7 in the Town of Clearwater in the County of Lambton lying between a point situate 520 metres measured westerly from its intersection with the centre line of the King's Highway known as No. 40 and a point situate 350 metres measured easterly from its intersection with the centre line of the roadway known as Blackwell Road.

3.—(1) Paragraph 9 of Part 3 of Schedule 68 to the Regulation, as remade by section 2 of Ontario Regulation 68/87, is revoked and the following substituted:

9. That part of the King's Highway known as No. 59 in the Township of Norwich in the County of Oxford lying between a point situate 600 metres measured westerly from its intersection with the centre line of the road allowance between lots 14 and 15 in concessions 1 and 2 and a point situate 385 metres measured southerly from its intersection with the centre line of the road allowance between concessions 2 and 3.

(2) Paragraph 8 of Part 5 of Schedule 68, as remade by section 2 of Ontario Regulation 68/87, is revoked.

(3) Part 6 of Schedule 68, as amended by section 2 of Ontario Regulation 68/87 and section 5 of Ontario Regulation 568/90, is further amended by adding the following paragraph:

5. That part of the King's Highway known as No. 59 in the Township of Norwich in the County of Oxford lying between a point situate 585 metres measured easterly from its intersection with the centre line of the road allowance between lots 14 and 15 in concessions 1 and 2 and a point situate 600 metres measured westerly from the said intersection.

ED PHILIP

Minister of Transportation

Dated at Toronto, this 13th day of February, 1991.

9/91

HEALTH INSURANCE ACT

O. Reg. 42/91.

General.

Made—February 14th, 1991.

Filed—February 14th, 1991.

**REGULATION TO AMEND
REGULATION 452 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
HEALTH INSURANCE ACT**

1. Section 49 of Regulation 452 of Revised Regulations of Ontario, 1980 is amended by adding the following subsection:

(2j) Despite paragraph 2 of subsection (2i), where a subsequent service is provided to an insured person on or after the 1st day of July, 1990, the amount payable by the Plan is \$9.50.O. O. Reg. 42/91, s. 1.

9/91

ONTARIO DRUG BENEFIT ACT, 1986

O. Reg. 43/91.

General.

Made—February 14th, 1991.

Filed—February 15th, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 689/86
MADE UNDER THE
ONTARIO DRUG BENEFIT ACT, 1986**

1.—(1) Items 116, 178, 225, 226, 240, 292, 300, 301, 317, 345, 346, 405 to 407, 421, 422, 450, 451, 453, 512 to 514, 544, 545, 555, 556, 589 to 592, 614, 642, 643, 742, 763, 892 and 893 of Part B of Schedule 1 to Ontario Regulation 689/86, as remade by section 1 of Ontario Regulation 321/90, are revoked and the following substituted:

116	Cephalexin Monohydrate 250mg Cap	00253154 00342084	Ceporex Novo-Lexin	GLA NOP	.1770
.					
178	Sulfamethoxazole & Trimethoprim 40mg & 8mg/mL O/L	00270644 00272485 00726540 00846465	Septra Bactrim Sugar Free Novo-Trimel Apo-Sulfatrim	BWE HLR NOP APX	.0210
.					
225	Tamoxifen Citrate 10mg Tab	00419052 00657360 +00810444 00812404 +00839361	Nolvadex Tamofen Tamone Apo-Tamox Alpha-Tamoxifen	ICI RPP ADI APX GEN	.5420
226	Tamoxifen Citrate 20mg Tab	00638706 00657379 +00810452 00812390 +00839353	Nolvadex D Tamofen Tamone Apo-Tamox Alpha-Tamoxifen	ICI RPP ADI APX GEN	.9924
.					
240	Pyridostigmine Bromide 180mg LA Tab	00869953	Mestinon	ICN	.3023
.					

292	Salbutamol Inh-200 dose Pk	00303569 00790419 +00851841	Ventolin Apo-Salvent Salbutamol Inhaler	GLA APX KNR	6.0000
.					
300	Salbutamol 2mg Tab	00361135 00620955 00637793	Ventolin Novo-Salmol Salbutamol	GLA NOP EVM	.0275
301	Salbutamol 4mg Tab	00332267 00620963 00637807	Ventolin Novo-Salmol Salbutamol	GLA NOP EVM	.0440
.					
317	Baclofen 20mg Tab	00636576 +00849456	Lioresal DS Alpha-Baclofen	GEI GEN	.5800
.					
345	Atenolol 50mg Tab	00520683 00773689	Tenormin Apo-Atenol	ICI APX	.4085
346	Atenolol 100mg Tab	00486833 00773697	Tenormin Apo-Atenol	ICI APX	.6720
.					
405	Timolol Maleate 5mg Tab	00353914 00755842	Blocadren Apo-Timol	FRS APX	.1628
406	Timolol Maleate 10mg Tab	00353922 00755850	Blocadren Apo-Timol	FRS APX	.2536
407	Timolol Maleate 20mg Tab	00495611 00755869	Blocadren Apo-Timol	FRS APX	.4917
.					
421	Atenolol 50mg Tab	00520683 00773689	Tenormin Apo-Atenol	ICI APX	.4085
422	Atenolol 100mg Tab	00486833 00773697	Tenormin Apo-Atenol	ICI APX	.6720
.					

450	Hydralazine HCl 25mg Tab	00005533 00759473	Apresoline Novo-Hylazin	CIB NOP	.1615
451	Hydralazine HCl 50mg Tab	00005541 00759481	Apresoline Novo-Hylazin	CIB NOP	.2540
.					
453	Hydrochlorothiazide 50mg Tab	00016519 00021482 00092703 #00263907 00312800	HydroDIURIL Novo-Hydrazide Hydrochlorothiazide Urozide Apo-Hydro 50	MSD NOP DTC ICN APX	.0066
.					
512	Timolol Maleate 5mg Tab	00353914 00755842	Blocadren Apo-Timol	FRS APX	.1628
513	Timolol Maleate 10mg Tab	00353922 00755850	Blocadren Apo-Timol	FRS APX	.2536
514	Timolol Maleate 20mg Tab	00495611 00755869	Blocadren Apo-Timol	FRS APX	.4917
.					
544	*Acetylsalicylic Acid 325mg Ent Tab	00010332 00216666	Entrophen Novasen	FRS NOP	.0162
545	*Acetylsalicylic Acid 650mg Ent Tab	00010340 00229296	Entrophen Novasen	FRS NOP	.0268
.					
555	Acetylsalicylic Acid Compound with Codeine 15mg Tab	00095508 00108103 #00604496	AC & C 282 Ancasal 15	DTC FRS SAN	.0419

556	Acetylsalicylic Acid Compound with Codeine 30mg Tab	00095516 00219843 #00604518	AC & C 292 Ancasal 30	DTC FRS SAN	.0602
.					
589	Ibuprofen 200mg Tab	00441643 #00606197 00629324	Apo-Ibuprofen Ibuprofen Novo-Profen	APX KNR NOP	.0350
590	Ibuprofen 300mg Tab	00327794 00441651 00606200 00629332	Motrin Apo-Ibuprofen Ibuprofen Novo-Profen	UPJ APX KNR NOP	.0370
591	Ibuprofen 400mg Tab	00364142 00506052 00606219 00629340	Motrin Apo-Ibuprofen Ibuprofen Novo-Profen	UPJ APX, KNR NOP	.0480
592	Ibuprofen 600mg Tab	00484911 00585114 00606227 00629359	Motrin Apo-Ibuprofen Ibuprofen Novo-Profen	UPJ APX KNR NOP	.0612
.					
614	Morphine HCl 20mg/mL O/L	00632481 00690791	M.O.S. Morphitec-20	ICN TCH	.5036
.					
642	Oxycodone HCl & Acetaminophen 5mg & 325mg Tab	00574384 00580201 00608165	Endocet Percocet Oxycocet	END DUP TCH	.1380
643	Oxycodone HCl & Acetylsalicylic Acid 5mg & 325mg Tab	00574392 00580236 00608157	Endodan Percodan Oxycodan	END DUP TCH	.1680

742	Chlordiazepoxide 5mg Cap	00012629	Librium	HLR	0114
		#00013463	Solium	HOR	
		00020915	Novo-Poxide	NOP	
		00398403	Chlordiazepoxide	DTC	
		00522724	Apo- Chlordiazepoxide	APX	

.

763	Diazepam 5mg Tab	00013285	Valium	HLR	.0055
		00013765	Vivol	HOR	
		00272442	Novo-Dipam	NOP	
		#00280429	E-Pam	ICN	
		00362158	Apo-Diazepam	APX	
		00396230	Diazepam	DTC	

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892	Triazolam 0.125mg Tab	00512559	Halcion	UPJ	.0763
		00614351	Triazolam	KNR	
		00808563	Apo-Triazo	APX	

893	Triazolam 0.25mg Tab	00443158	Halcion	UPJ	.0945
		00614378	Triazolam	KNR	
		00808571	Apo-Triazo	APX	
		+00872431	Novo-Triolam	NOP	

(2) Part B of Schedule 1, as remade by section 1 of Ontario Regulation 321/90, is amended by adding the following item:

925A	Electrolyte & Dextrose	+00808385	Gastrolyte	ROR	.6185
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(3) Items 956, 1013, 1022, 1027, 1028, 1032, 1033, 1049, 1050, 1057, 1096, 1165 and 1180 of Part B of Schedule 1, as remade by section 1 of Ontario Regulation 321/90, are revoked and the following substituted:

956	Hydrochlorothiazide 50mg Tab	00016519	HydroDIURIL	MSD	.0066
		00021482	Novo-Hydrazide	NOP	
		00092703	Hydrochlorothiazide	DTC	
		#00263907	Urozide	ICN	
		00312800	Apo-Hydro 50	APX	

.

1013	Dexamethasone 0.1% Oph Oint -3.5g Pk	00042579	Maxidex	ALC	7.5200
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1022	Prednisolone Acetate & Atropine Sulfate 0.25% & 1% Oph Sol	00411124	Mydrapred	ALC	2.2700
.					
1027	Carbachol 1.5% Oph Sol	00000655	Isopto Carbachol	ALC	.6020
1028	Carbachol 3% Oph Sol	00000663	Isopto Carbachol	ALC	.7367
.					
1032	Pilocarpine HCl 4% Oph Gel	00575240	Pilopine HS	ALC	2.2820
1033	Pilocarpine HCl 0.5% Oph Sol	00000833	Isopto Carpine	ALC	.2787
.					
1049	Homatropine HBr 2% Oph Sol	00000779	Isopto Homatropine	ALC	.5902
1050	Homatropine HBr 5% Oph Sol	00000787	Isopto Homatropine	ALC	.7000
.					
1057	Betaxolol HCl 0.5% Oph Sol	00695688	Betoptic	ALC	2.0420
.					
1096	Sodium Alginate & Aluminum Hydroxide 50mg & 20mg/mL O/L	00541168	Gaviscon Liquid	STP	.0157
.					
1165	Lactulose 666.7mg/mL O/L	00444316	Cephulac	MER	.0314
		00690686	Acilac	TCH	
.					
1180	Sucralfate 1g Tab	00506346	Sulcrate	NRD	.4387

2. This Regulation shall be deemed to have come into force on the 1st day of July, 1990.

PRESCRIPTION DRUG COST REGULATION ACT, 1986

O. Reg. 44/91.

General.

Made—February 14th, 1991.

Filed—February 15th, 1991.

REGULATION TO AMEND
ONTARIO REGULATION 690/86
MADE UNDER THE
PRESCRIPTION DRUG COST REGULATION ACT, 1986

1. Schedule 1 to Ontario Regulation 690/86, as remade by section 1 of Ontario Regulation 322/90, is revoked and the following substituted:

Schedule 1

Item 04:00 Antihistaminics

1	* Diphenhydramine HCl 25mg Cap	00022756 Benadryl	PDA
		00370517 Allerdryl	ICN
2	* Diphenhydramine HCl 50mg Cap	00022764 Benadryl	PDA
		00271411 Allerdryl	ICN
3	Promethazine HCl 2mg/mL O/L	00025429 Phenergan	RPP
		00583979 PMS-Promethazine	PMS

Item 08:00 Anti-Infective Agents

08:12:04 Antibiotics Antifungals

4	Nystatin 100000U/mL O/L	00014850 Nilstat	LED
		00248169 Mycostatin	SQU
		00282219 Nadostine	NDA
5	Nystatin 500000U Tab	00014974 Nilstat	LED
		00029416 Mycostatin	SQU
		00270113 Nadostine	NDA

08:12:12 Antibiotics Erythromycins

6	Erythromycin Base 250mg Ent Pel Cap	00607142 ERYC	PDA
		00726672 Apo-Erythro E-C	APX
		+00846333 Erythromycin Delayed-Release Capsules	ABB
		+00878669 Novo-Rythro Encap	NOP
7	Erythromycin Base 250mg Tab	00030899 E-Mycin	UPJ
		00244635 Erythromid	ABB
		00640263 Erythromycin	KNR
		00682020 Apo-Erythro	APX
8	Erythromycin Estolate 250mg Cap	00015202 Ilosone	LIL
		00020966 Novo-Rythro Estolate	NOP
9	Erythromycin Estolate 25mg/mL O/L	00015474 Ilosone	LIL
		00021172 Novo-Rythro Estolate	NOP
10	Erythromycin Estolate 50mg/mL O/L	00210641 Ilosone	LIL
		00262595 Novo-Rythro Estolate	NOP
11	Erythromycin Ethylsuccinate 600mg Tab	00583782 EES-600	ABB
		00637416 Apo-Erythro-ES	APX
12	Erythromycin Stearate 250mg Tab	00000434 Erythrocin	ABB
		00391581 Novo-Rythro Stearate	NOP
		00545678 Apo-Erythro-S	APX
13	Erythromycin Stearate 500mg Tab	00266515 Erythrocin	ABB
		00688568 Apo-Erythro-S	APX

08:12:16 Antibiotics Penicillins

14	Amoxicillin 250mg Cap	00288497 Amoxil	AYE
		00406724 Novamoxin	NOP
		00628115 Apo-Amoxi	APX
		+00865567 Nu-Amoxi	NXP

Item 08:00 Anti-Infective Agents

08:12:16 Antibiotics Penicillins

15	Amoxicillin 500mg Cap	00330531 Amoxil	AYE
		00406716 Novamoxin	NOP
		00628123 Apo-Amoxi	APX
		+00865575 Nu-Amoxi	NXP
16	Amoxicillin 25mg/mL O/L	00288500 Amoxil	AYE
		00452149 Novamoxin	NOP
		00628131 Apo-Amoxi	APX
		+00865540 Nu-Amoxi	NXP
17	Amoxicillin 50mg/mL O/L	00288519 Amoxil	AYE
		00452130 Novamoxin	NOP
		00628158 Apo-Amoxi	APX
		+00865559 Nu-Amoxi	NXP
18	Ampicillin 250mg Cap	00002003 Penbritin	AYE
		00020877 Novo-Ampicillin	NOP
		00603279 Apo-Ampi	APX
		+00717657 Nu-Ampi	NXP
19	Ampicillin 500mg Cap	00002011 Penbritin	AYE
		00020885 Novo-Ampicillin	NOP
		00603295 Apo-Ampi	APX
		+00717673 Nu-Ampi	NXP
20	Ampicillin Inj Pd- 500mg Pk	00002119 Penbritin	AYE
		00004057 Ampicin	BRI
21	Ampicillin Inj Pd-1000mg Pk	00002127 Penbritin	AYE
		00004065 Ampicin	BRI
22	Ampicillin 25mg/mL O/L	00002410 Penbritin	AYE
		00021121 Novo-Ampicillin	NOP
		00603260 Apo-Ampi	APX
		+00717495 Nu-Ampi	NXP
23	Ampicillin 50mg/mL O/L	00002429 Penbritin	AYE
		00021148 Novo-Ampicillin	NOP
		00603287 Apo-Ampi	APX
		+00717649 Nu-Ampi	NXP
24	Cloxacillin 250mg Cap	00002046 Orbenin	AYE
		00337765 Novo-Cloxin	NOP
		00618292 Apo-Cloxi	APX
		+00717584 Nu-Cloxi	NXP

Item 08:00 Anti-Infective Agents

08:12:16 Antibiotics Penicillins

25	Cloxacillin 500mg Cap	00002054 Orbenin	AYE
		00337773 Novo-Cloxin	NOP
		00618284 Apo-Cloxi	APX
		+00717592 Nu-Cloxi	NXP
26	Cloxacillin Inj Pd- 250mg Pk	00002151 Orbenin	AYE
		00407593 Tegopen	BRI
27	Cloxacillin Inj Pd- 500mg Pk	00002178 Orbenin	AYE
		00407607 Tegopen	BRI
28	Cloxacillin Inj Pd-2000mg Pk	00002186 Orbenin	AYE
		00407615 Tegopen	BRI
29	Cloxacillin 25mg/mL O/L	00002445 Orbenin	AYE
		00337757 Novo-Cloxin	NOP
		00644633 Apo-Cloxi	APX
		+00717630 Nu-Cloxi	NXP
30	Penicillin G (Potassium) 500000IU Tab	00107484 Megacillin 500	FRS
		00151432 Novo-Pen-500	NOP
31	Penicillin G Crystalline Inj Pd- 1000000IU Pk	00002208 Penicillin G (Pot)	AYE
		00011983 Crystapen (Sod)	GLA
32	Penicillin G Crystalline Inj Pd- 5000000IU Pk	00002216 Penicillin G (Pot)	AYE
		00011991 Crystapen (Sod)	GLA
33	Penicillin V (Benzathine) 60mg/mL O/L	00034045 Pen-Vee	WYE
		00248835 PVF 500	FRS
34	Penicillin V (Potassium) 25mg/mL O/L	00015563 V-Cillin K	LIL
		00018635 Nadopen-V	NDA
		00642223 Apo-Pen V-K	APX
35	Penicillin V (Potassium) 60mg/mL O/L	00331945 VC-K 500	LIL
		00391603 Novo-Pen-VK-500	NOP
		00642231 Apo-Pen V-K	APX
36	Penicillin V (Potassium) 300mg Tab	00018740 Nadopen-V	NDA
		00021202 Novo-Pen-VK-500	NOP
		00248843 PVF-K 500	FRS
		00642215 Apo-Pen V-K	APX
		+00717568 Nu-Pen VK	NXP

Item 08:00 Anti-Infective Agents

08:12:24 Antibiotics Tetracyclines

37	Tetracycline 250mg Cap	00014605	Achromycin V	LED
		00021059	Novo-Tetra	NOP
		00024422	Tetracyn	PFI
		00580929	Apo-Tetra	APX
		+00717606	Nu-Tetra	NXP

08:12:28 Antibiotics Other Antibiotics

38	Cefazolin Sodium Inj Pd- 500mg Pk	00319139	Ancef	SKF
		00322288	Kefzol	LIL
39	Cefazolin Sodium Inj Pd-1000mg Pk	00319112	Ancef	SKF
		00322296	Kefzol	LIL
40	Cephalexin Monohydrate 250mg Cap	#00253154	Ceporex	GLA
		00342084	Novo-Lexin	NOP
41	Cephalexin Monohydrate 500mg Cap	#00253146	Ceporex	GLA
		00342114	Novo-Lexin	NOP
42	Cephalexin Monohydrate 25mg/mL O/L	00015547	Keflex	LIL
		00342106	Novo-Lexin	NOP
43	Cephalexin Monohydrate 50mg/mL O/L	00035645	Keflex	LIL
		00342092	Novo-Lexin	NOP
44	Cephalexin Monohydrate 250mg Tab	00403628	Keflex	LIL
		00583413	Novo-Lexin	NOP
		00768723	Apo-Cephalex	APX
		+00865877	Nu-Cephalex	NXP
45	Cephalexin Monohydrate 500mg Tab	00244392	Keflex	LIL
		00583421	Novo-Lexin	NOP
		00768715	Apo-Cephalex	APX
		+00865885	Nu-Cephalex	NXP
46	Gentamicin Sulfate 80mg/2mL Inj Sol-2mL Pk	00223824	Garamycin	SCH
		00259179	Cidomycin	ROU

08:16:00 Antitubercular Agents

47	Ethambutol HCl 100mg Tab	00127957	Myambutol	LED
		00247960	Etibi	ICN
48	Ethambutol HCl 400mg Tab	00127965	Myambutol	LED
		00247979	Etibi	ICN

Item 08:00 Anti-Infective Agents

08:16:00 Antitubercular Agents

49	Isoniazid 100mg Tab	00261270 Isotamine	ICN
		00440108 Isoniazid	SAP
50	Isoniazid 300mg Tab	00272655 Isotamine	ICN
		00310247 Isoniazid	SAP
51	Rifampin 150mg Cap	00210471 Rimactane	CIB
		00393444 Rofact	ICN
		00580376 Rifadin	MER
52	Rifampin 300mg Cap	00210463 Rimactane	CIB
		00343617 Rofact	ICN
		00580384 Rifadin	MER

08:20:00 Plasmodicides (Antimalarials)

53	Chloroquine Phosphate 250mg Tab	00021261 Novo-Chloroquine	NOP
		00033642 Aralen	WIN
54	Quinine Sulfate 200mg Cap	00021008 Novo-Quinine	NOP
		00093742 Quinine Sulfate	DTC
		00178993 Quinine Sulfate	SDR
55	Quinine Sulfate 300mg Cap	00021016 Novo-Quinine	NOP
		00093750 Quinine	DTC
		00179000 Quinine Sulfate	SDR

08:24:00 Sulfonamides

56	Sulfamethoxazole 500mg Tab	00013412 Gantanol	HLR
		00421480 Apo-Sulfamethoxazole	APX
57	Sulfasalazine 500mg Ent Tab	00158526 Salazopyrin	PHD
		00445126 S.A.S. Enteric 500	ICN
		00598488 PMS-Sulfasalazine -E.C.	PMS
		00685925 Sulfasalazine	KNR
58	Sulfasalazine 500mg Tab	00024856 Salazopyrin	PHD
		00263869 S.A.S. 500	ICN
		00598461 PMS-Sulfasalazine	PMS
		00685933 Sulfasalazine	KNR

08:32:00 Trichomonacides

59	Metronidazole 500mg Cap	00489891 Flagyl	RPP
		+00783137 Trikacide	PMS

Item 08:00 Anti-Infective Agents

08:32:00 Trichomonacides

60	Metronidazole 250mg Tab	00021555	Novo-Nidazol	NOP
		00025615	Flagyl	RPP
		00545066	Apo-Metronidazole	APX
		00584339	PMS-Metronidazole	PMS

08:36:00 Urinary Anti-Infectives

61	Nitrofurantoin 50mg Tab	00021563	Novo-Furan	NOP
		00319511	Apo-Nitrofurantoin	APX
62	Nitrofurantoin 100mg Tab	00021571	Novo-Furan	NOP
		00092819	Nitrofurantoin	DTC
		00312738	Apo-Nitrofurantoin	APX
63	Pivmecillinam HCl 200mg Tab	00657212	Selexid	LEO
		00791741	Mecillin 200	MCN

08:40:00 Miscellaneous Anti-Infectives

64	Sulfamethoxazole & Trimethoprim 40mg & 8mg/mL O/L	00270644	Septra	BWE
		00272485	Bactrim Sugar Free	HLR
		00726540	Novo-Trimel	NOP
		00846465	Apo-Sulfatrim	APX
		+00865753	Nu-Cotrimox	NXP
65	Sulfamethoxazole & Trimethoprim 400mg & 80mg Tab	00270636	Septra	BWE
		00272469	Bactrim	HLR
		00445274	Apo-Sulfatrim	APX
		00510637	Novo-Trimel	NOP
		00516759	Sulfamethoxazole & Trimethoprim	DTC
		+00865710	Nu-Cotrimox	NXP
66	Sulfamethoxazole & Trimethoprim 800mg & 160mg Tab	00368040	Septra DS	BWE
		00371823	Bactrim-DS	HLR
		00445282	Apo-Sulfatrim-DS	APX
		00510645	Novo-Trimel DS	NOP
		00516767	Sulfamethoxazole & Trimethoprim DS	DTC
		+00865729	Nu-Cotrimox	NXP

Item 10:00 Antineoplastic Agents

67	Cyclophosphamide 25mg Tab	00262676 Procytox	HOR
		00344877 Cytosan	BRI
68	Cyclophosphamide 50mg Tab	00013749 Procytox	HOR
		00344885 Cytosan	BRI
69	Tamoxifen Citrate 10mg Tab	00419052 Nolvadex	ICI
		00657360 Tamofen	RPP
		00810444 Tamone	ADI
		00812404 Apo-Tamox	APX
		00839361 Alpha-Tamoxifen	GEN
		+00851965 Novo-Tamoxifen	NOP
70	Tamoxifen Citrate 20mg Tab	00638706 Nolvadex D	ICI
		00657379 Tamofen	RPP
		00810452 Tamone	ADI
		00812390 Apo-Tamox	APX
		00839353 Alpha-Tamoxifen	GEN
		+00851973 Novo-Tamoxifen	NOP

Item 12:00 Autonomic Agents

12:04:00 Parasympathomimetic (Cholinergic) Agents

71	Bethanechol Chloride 10mg Tab	00349720 Urecholine	FRS
		00452998 Duvoid	EAT
72	Bethanechol Chloride 25mg Tab	00349739 Urecholine	FRS
		00453005 Duvoid	EAT

12:08:00 Parasympatholytic (Cholinergic Blocking) Agents

73	Benztropine Mesylate 2mg Tab	00016357 Cogentin	MSD
		00426857 Apo-Benztropine	APX
74	Procyclidine HCl 0.5mg/mL O/L	00004405 Kemadrin	BWE
		00485012 Procyclid	ICN
75	Procyclidine HCl 5mg Tab	00004758 Kemadrin	BWE
		00306290 Procyclid	ICN
		00587354 PMS-Procyclidine	PMS
76	Propantheline Bromide 15mg Tab	00028592 Pro-Banthine	SEA
		00294837 Propanthel	ICN
77	Trihexyphenidyl HCl 2mg Tab	00015040 Artane	LED
		00021911 Novo-Hexidyl	NOP
		#00280445 Aparkane	ICN
		00545058 Apo-Trihex	APX
78	Trihexyphenidyl HCl 5mg Tab	00015059 Artane	LED
		00021938 Novo-Hexidyl	NOP
		00271314 Aparkane	ICN
		00545074 Apo-Trihex	APX

12:12:00 Sympathomimetic (Adrenergic) Agents

79	Pseudoephedrine HCl 6mg/mL O/L	00004561 Sudafed	BWE
		00425516 Robidrine	ROB
80	Pseudoephedrine HCl 60mg Tab	00004766 Sudafed	BWE
		00342726 Robidrine	ROB
81	Salbutamol Inh-200 dose Pk	00790419 Apo-Salvent	APX
		00851841 Salbutamol Inhaler	KNR
		00867179 Ventolin	GLA
82	Salbutamol 5mg/mL Inh Sol-10mL Pk	00334227 Ventolin	GLA
		00860808 Salbutamol Respirator Solution	KNR

Item 12:00 Autonomic Agents

12:12:00 Sympathomimetic (Adrenergic) Agents

83	Salbutamol 2mg Tab	00361135 Ventolin	GLA
		00620955 Novo-Salmol	NOP
		00637793 Salbutamol	EVM
84	Salbutamol 4mg Tab	00332267 Ventolin	GLA
		00620963 Novo-Salmol	NOP
		00637807 Salbutamol	EVM

12:20:00 Skeletal Muscle Relaxants

85	Baclofen 10mg Tab	00455881 Lioresal	GEI
		00808520 Alpha-Baclofen	GEN
86	Baclofen 20mg Tab	00636576 Lioresal DS	GEI
		00849456 Alpha-Baclofen	GEN

Item 20:00 Blood Formation and Coagulation

20:04:00 Antianemia Drugs

87	* Ferrous Gluconate 300mg Tab	00021458 Novo-Ferrogluc	NOP
		00031097 Ferrous Gluconate	WAM
		00041157 Ferrous Gluconate	LEA
		00094714 Ferrous Gluconate	DTC
		00545031 Apo-Ferrous Gluconate	APX

Item 24:00 Cardiovascular Drugs

24:04:00 Cardiac Drugs

88	Acebutolol HCl 100mg Tab	00695645 Monitan	WYE
		00726559 Sectral	RPP
89	Acebutolol HCl 200mg Tab	00695653 Monitan	WYE
		00726567 Sectral	RPP
90	Acebutolol HCl 400mg Tab	+00771333 Sectral	RPP
		+00771341 Monitan	WYE
91	Atenolol 50mg Tab	00520683 Tenormin	ICI
		00773689 Apo-Atenol	APX
		+00886114 Nu-Atenol	NXP
92	Atenolol 100mg Tab	00486833 Tenormin	ICI
		00773697 Apo-Atenol	APX
		+00886122 Nu-Atenol	NXP
93	Diltiazem HCl 30mg Tab	00587753 Cardizem	NRD
		00771376 Apo-Diltiaz	APX
		00862924 Novo-Diltazem	NOP
		+00886068 Nu-Diltiaz	NXP
		+00888524 Syn-Diltiazem	SYP
94	Diltiazem HCl 60mg Tab	00587761 Cardizem	NRD
		00771384 Apo-Diltiaz	APX
		00862932 Novo-Diltazem	NOP
		+00886076 Nu-Diltiaz	NXP
		+00888532 Syn-Diltiazem	SYP
95	Disopyramide 100mg Cap	00382876 Rythmodan	ROU
		00396370 Norpace	SEA
96	Disopyramide 150mg Cap	00396389 Norpace	SEA
		00439363 Rythmodan	ROU
97	Metoprolol Tartrate 50mg Tab	00397423 Lopresor	GEI
		00402605 Betaloc	AST
		00618632 Apo-Metoprolol	APX
		00648035 Novo-Metoprol	NOP
		00749354 Apo-Metoprolol (Type L)	APX
		00842648 Novo-Metoprol (Uncoated)	NOP
+00865605 Nu-Metop	NXP		

Item 24:00 Cardiovascular Drugs

24:04:00 Cardiac Drugs

98	Metoprolol Tartrate 100mg Tab	00397431	Lopresor	GEI
		00402540	Betaloc	AST
		00618640	Apo-Metoprolol	APX
		00648043	Novo-Metoprol	NOP
		00751170	Apo-Metoprolol (Type L)	APX
		00842656	Novo-Metoprol (Uncoated)	NOP
		+00865613	Nu-Metop	NXP
99	Nadolol 40mg Tab	00607126	Corgard	SQU
		00782505	Apo-Nadol	APX
		00851663	Syn-Nadolol	SYP
100	Nadolol 80mg Tab	00463256	Corgard	SQU
		00782467	Apo-Nadol	APX
		00851671	Syn-Nadolol	SYP
101	Nadolol 160mg Tab	00523372	Corgard	SQU
		00782475	Apo-Nadol	APX
		00851698	Syn-Nadolol	SYP
102	Nifedipine 5mg Cap	00613258	Adalat	MIT
		00725110	Apo-Nifed	APX
103	Nifedipine 10mg Cap	00557633	Adalat	MIT
		00755907	Apo-Nifed	APX
		00756830	Novo-Nifedin	NOP
		+00865591	Nu-Nifed	NXP
104	Pindolol 5mg Tab	00417270	Visken	SAN
		00755877	Apo-Pindol	APX
		00818615	Syn-Pindolol	SYP
		+00869007	Novo-Pindol	NOP
		+00886149	Nu-Pindol	NXP
105	Pindolol 10mg Tab	00443174	Visken	SAN
		00755885	Apo-Pindol	APX
		00818593	Syn-Pindolol	SYP
		+00886009	Nu-Pindol	NXP
106	Pindolol 15mg Tab	00417289	Visken	SAN
		00755893	Apo-Pindol	APX
		00818607	Syn-Pindolol	SYP
		+00886130	Nu-Pindol	NXP
107	Procaïnamide HCl 250mg Cap	00029076	Pronestyl	SQU
		00713325	Apo-Procaïnamide	APX

Item 24:00 Cardiovascular Drugs

24:04:00 Cardiac Drugs

108	Procainamide HCl 375mg Cap	00296031	Pronestyl	SQU
		00713333	Apo-Procainamide	APX
109	Procainamide HCl 500mg Cap	00353523	Pronestyl	SQU
		00713341	Apo-Procainamide	APX
110	Propranolol 10mg Tab	00002658	Inderal	AYE
		00402788	Apo-Propranolol	APX
		00496480	Novo-Pranol	NOP
		00523402	Propranolol	DTC
		00582255	PMS-Propranolol	PMS
111	Propranolol 20mg Tab	00489859	Inderal-20	AYE
		00663719	Apo-Propranolol	APX
		00740675	Novo-Pranol	NOP
112	Propranolol 40mg Tab	00002666	Inderal	AYE
		00402753	Apo-Propranolol	APX
		00496499	Novo-Pranol	NOP
		00523399	Propranolol	DTC
		00582263	PMS-Propranolol	PMS
113	Propranolol 80mg Tab	00313602	Inderal	AYE
		00402761	Apo-Propranolol	APX
		00496502	Novo-Pranol	NOP
		00523380	Propranolol	DTC
		00582271	PMS-Propranolol	PMS
114	Propranolol 120mg Tab	00456578	Inderal	AYE
		00504335	Apo-Propranolol	APX
		00549657	Novo-Pranol	NOP
		00582298	PMS-Propranolol	PMS
115	Quinidine Sulfate 200mg Tab	00004782	Quinidine	BWE
		00021733	Novo-Quinidin	NOP
		00023868	Quinidine	PDA
		00026883	Quinidine	ROG
		00094412	Quinidine	DTC
		00441740	Apo-Quinidine Sulfate	APX
116	Timolol Maleate 5mg Tab	00353914	Blocadren	FRS
		00755842	Apo-Timol	APX
117	Timolol Maleate 10mg Tab	00353922	Blocadren	FRS
		00755850	Apo-Timol	APX
118	Timolol Maleate 20mg Tab	00495611	Blocadren	FRS
		00755869	Apo-Timol	APX

Item 24:00 Cardiovascular Drugs

24:04:00 Cardiac Drugs

119	Verapamil HCl 80mg Tab	00554316 Isoptin	SEA
		+00782483 Apo-Verap	APX
		+00812331 Novo-Veramil	NOP
		00867365 Verapamil	KNR
120	Verapamil HCl 120mg Tab	00554324 Isoptin	SEA
		+00782491 Apo-Verap	APX
		+00812358 Novo-Veramil	NOP
		00867373 Verapamil	KNR

24:06:00 Antilipemic Drugs

121	Clofibrate 500mg Cap	00002038 Atromid-S	AYE
		00337382 Novo-Fibrate	NOP
		00409472 Claripex	ICN
122	Gemfibrozil 300mg Cap	00599026 Lopid	PDA
		+00851922 Gemfibrozil	CIL

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

123	Acebutolol HCl 100mg Tab	00695645 Monitan	WYE
		00726559 Sectral	RPP
124	Acebutolol HCl 200mg Tab	00695653 Monitan	WYE
		00726567 Sectral	RPP
125	Acebutolol HCl 400mg Tab	+00771333 Sectral	RPP
		+00771341 Monitan	WYE
126	Amiloride HCl & Hydrochlorothiazide 5mg & 50mg Tab	00487813 Moduret	MSD
		00784400 Apo-Amilzide	APX
		+00886106 Nu-Amilzide	NXP
127	Atenolol 50mg Tab	00520683 Tenormin	ICI
		00773689 Apo-Atenol	APX
		+00886114 Nu-Atenol	NXP
128	Atenolol 100mg Tab	00486833 Tenormin	ICI
		00773697 Apo-Atenol	APX
		+00886122 Nu-Atenol	NXP
129	Captopril 12.5mg Tab	00695661 Capoten	SQU
		+00893595 Apo-Capto	APX
130	Captopril 25mg Tab	00546283 Capoten	SQU
		+00851833 Syn-Captopril	SYP
		+00893609 Apo-Capto	APX

Item 24:00 Cardiovascular Drugs

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

131	Captopril 50mg Tab	00546291 Capoten +00851647 Syn-Captopril +00893617 Apo-Capto	SQU SYP APX
132	Captopril 100mg Tab	00546305 Capoten +00851655 Syn-Captopril +00893625 Apo-Capto	SQU SYP APX
133	Chlorthalidone 50mg Tab	00010413 Hygroton 00298964 Uridon 00337447 Novo-Thalidone 00360279 Apo-Chlorthalidone 00398365 Chlorthalidone	GEI ICN NOP APX DTC
134	Chlorthalidone 100mg Tab	00010421 Hygroton #00293881 Uridon 00337455 Novo-Thalidone 00360287 Apo-Chlorthalidone 00398373 Chlorthalidone	GEI ICN NOP APX DTC
135	Clonidine HCl 0.1mg Tab	00259527 Catapres +00868949 Apo-Clonidine	BOE APX
136	Clonidine HCl 0.2mg Tab	00291889 Catapres +00868957 Apo-Clonidine	BOE APX
137	Furosemide 20mg Tab	00289590 Lasix 00337730 Novo-Semide 00396788 Apo-Furosemide	HOE NOP APX
138	Furosemide 40mg Tab	00012580 Lasix 00332275 Furoside 00337749 Novo-Semide 00344079 Uritol 00362166 Apo-Furosemide 00396249 Furosemide	HOE ICN NOP HOR APX DTC
139	Guanethidine Monosulfate 10mg Tab	00005509 Ismelin 00396745 Apo-Guanethidine	CIB APX
140	Guanethidine Monosulfate 25mg Tab	00005517 Ismelin 00396753 Apo-Guanethidine	CIB APX
141	Hydralazine HCl 25mg Tab	00005533 Apresoline 00759473 Novo-Hylazin	CIB NOP
142	Hydralazine HCl 50mg Tab	00005541 Apresoline 00759481 Novo-Hylazin	CIB NOP

Item 24:00 Cardiovascular Drugs

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

143	Hydrochlorothiazide 25mg Tab	00016500 HydroDIURIL	MSD
		00021474 Novo-Hydrazide	NOP
		00092681 Hydrochlorothiazide	DTC
		00326844 Apo-Hydro 25	APX
144	Hydrochlorothiazide 50mg Tab	00016519 HydroDIURIL	MSD
		00021482 Novo-Hydrazide	NOP
		00092703 Hydrochlorothiazide	DTC
		00312800 Apo-Hydro 50	APX
145	Hydrochlorothiazide & Spironolactone 25mg & 25mg Tab	00180408 Aldactazide-25	SEA
		00613231 Novo-Spirozine-25	NOP
146	Hydrochlorothiazide & Spironolactone 50mg & 50mg Tab	00594377 Aldactazide-50	SEA
		00657182 Novo-Spirozine-50	NOP
147	Hydrochlorothiazide & Triamterene 25mg & 50mg Tab	00181528 Dyazide	SKF
		00441775 Apo-Triazide	APX
		00532657 Novo-Triamzide	NOP
		+00865532 Nu-Triazide	NXP
148	Methyldopa 125mg Tab	00016551 Aldomet	MSD
		00337463 Novo-Medopa	NOP
		00353620 Dopamet	ICN
		00360252 Apo-Methyldopa	APX
		00456012 Methyldopa	DTC
149	Methyldopa 250mg Tab	00016578 Aldomet	MSD
		00250392 Dopamet	ICN
		00337471 Novo-Medopa	NOP
		00360260 Apo-Methyldopa	APX
		00456004 Methyldopa	DTC
150	Methyldopa 500mg Tab	00016586 Aldomet	MSD
		00337498 Novo-Medopa	NOP
		00353639 Dopamet	ICN
		00426830 Apo-Methyldopa	APX
151	Methyldopa & Hydrochlorothiazide 250mg & 15mg Tab	00140589 Aldoril-15	MSD
		00363642 Novo-Doparil-15	NOP
		00441708 Apo-Methazide-15	APX
		00584967 PMS-Dopazide-15	PMS
152	Methyldopa & Hydrochlorothiazide 250mg & 25mg Tab	00140597 Aldoril-25	MSD
		00363634 Novo-Doparil-25	NOP
		00441716 Apo-Methazide-25	APX
		00584975 PMS-Dopazide-25	PMS

Item 24:00 Cardiovascular Drugs

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

153	Metoprolol Tartrate 50mg Tab	00397423 Lopresor	GEI
		00402605 Betaloc	AST
		00618632 Apo-Metoprolol	APX
		00648035 Novo-Metoprol	NOP
		00749354 Apo-Metoprolol (Type L)	APX
		00842648 Novo-Metoprol (Uncoated)	NOP
		+00865605 Nu-Metop	NXP
154	Metoprolol Tartrate 100mg Tab	00397431 Lopresor	GEI
		00402540 Betaloc	AST
		00618640 Apo-Metoprolol	APX
		00648043 Novo-Metoprol	NOP
		00751170 Apo-Metoprolol (Type L)	APX
		00842656 Novo-Metoprol (Uncoated)	NOP
		+00865613 Nu-Metop	NXP
155	Nadolol 40mg Tab	00607126 Corgard	SQU
		00782505 Apo-Nadol	APX
		00851663 Syn-Nadolol	SYP
156	Nadolol 80mg Tab	00463256 Corgard	SQU
		00782467 Apo-Nadol	APX
		00851671 Syn-Nadolol	SYP
157	Nadolol 160mg Tab	00523372 Corgard	SQU
		00782475 Apo-Nadol	APX
		00851698 Syn-Nadolol	SYP
158	Pindolol 5mg Tab	00417270 Visken	SAN
		00755877 Apo-Pindol	APX
		00818615 Syn-Pindolol	SYP
		+00869007 Novo-Pindol	NOP
		+00886149 Nu-Pindol	NXP
159	Pindolol 10mg Tab	00443174 Visken	SAN
		00755885 Apo-Pindol	APX
		00818593 Syn-Pindolol	SYP
		+00886009 Nu-Pindol	NXP
160	Pindolol 15mg Tab	00417289 Visken	SAN
		00755893 Apo-Pindol	APX
		00818607 Syn-Pindolol	SYP
		+00886130 Nu-Pindol	NXP
161	Prazosin HCl 1mg Tab	00560952 Minipress	PFI
		+00882801 Apo-Prazo	APX

Item 24:00 Cardiovascular Drugs

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

162	Prazosin HCl 2mg Tab	00560960 Minipress +00882828 Apo-Prazo	PFI APX
163	Prazosin HCl 5mg Tab	00560979 Minipress +00882836 Apo-Prazo	PFI APX
164	Propranolol 10mg Tab	00002658 Inderal 00402788 Apo-Propranolol 00496480 Novo-Pranol 00523402 Propranolol 00582255 PMS-Propranolol	AYE APX NOP DTC PMS
165	Propranolol 20mg Tab	00489859 Inderal-20 00663719 Apo-Propranolol 00740675 Novo-Pranol	AYE APX NOP
166	Propranolol 40mg Tab	00002666 Inderal 00402753 Apo-Propranolol 00496499 Novo-Pranol 00523399 Propranolol 00582263 PMS-Propranolol	AYE APX NOP DTC PMS
167	Propranolol 80mg Tab	00313602 Inderal 00402761 Apo-Propranolol 00496502 Novo-Pranol 00523380 Propranolol 00582271 PMS-Propranolol	AYE APX NOP DTC PMS
168	Propranolol 120mg Tab	00456578 Inderal 00504335 Apo-Propranolol 00549657 Novo-Pranol 00582298 PMS-Propranolol	AYE APX NOP PMS
169	Reserpine 0.25mg Tab	00005665 Serpasil 00021784 Novo-Reserpine 00093238 Reserpine	CIB NOP DTC
170	Spirolactone 25mg Tab	00028606 Aldactone 00613215 Novo-Spiroton	SEA NOP
171	Spirolactone 100mg Tab	00285455 Aldactone 00613223 Novo-Spiroton	SEA NOP
172	Timolol Maleate 5mg Tab	00353914 Blocadren 00755842 Apo-Timol	FRS APX
173	Timolol Maleate 10mg Tab	00353922 Blocadren 00755850 Apo-Timol	FRS APX

Item 24:00 Cardiovascular Drugs

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

174	Timolol Maleate 20mg Tab	00495611 Blocadren 00755869 Apo-Timol	FRS APX
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24:12:00 Vasodilating Drugs

175	Isosorbide Dinitrate 20mg LA Tab	00740721 Cedocard SR 00786683 Coradur-SR	PMS GLA
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176	Isosorbide Dinitrate 5mg SL Tab	00243116 Isordil 00446661 Coronex +00670944 Apo-ISDN	WYE AYE APX
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177	Isosorbide Dinitrate 10mg Tab	00208973 Isordil 00441686 Apo-ISDN 00446688 Coronex 00458686 Novo-Sorbide	WYE APX AYE NOP
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178	Isosorbide Dinitrate 30mg Tab	00279536 Isordil 00441694 Apo-ISDN 00446696 Coronex 00458694 Novo-Sorbide	WYE APX AYE NOP
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Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

179	Acetaminophen 80mg/mL O/L	00631353 Atasol	HOR
		00642401 Tempra	MJO
180	* Acetaminophen 325mg Tab	00277193 Rounox	ROG
		00293482 Atasol	HOR
		00330876 Robigesic	ROB
		00361046 Acetaminophen	SDR
		00374148 Acetaminophen	WAM
		00389218 Novo-Gesic	NOP
		00522511 Panadol	STP
		00544981 Apo-Acetaminophen	APX
		00589241 Acetaminophen	DPC
181	* Acetaminophen 500mg Tab	00013668 Atasol Forte	HOR
		00482323 Novo-Gesic Forte	NOP
		00524891 Panadol Extra Strength	STP
		00545007 Apo-Acetaminophen	APX
		00567663 Acetaminophen	WAM
		00589233 Acetaminophen Extra Strength	DPC
		00594814 Acetaminophen	SDR
182	Acetaminophen & Codeine Phosphate 300mg & 30mg Tab	00608882 Emtec-30	TCH
		00666130 Empracet-30	BWE
183	Acetaminophen & Codeine Phosphate 300mg & 60mg Tab	00396516 Tylenol No.4	MCN
		00621463 Lenoltec No.4	TCH
		00666149 Empracet-60	BWE
184	Acetaminophen Compound with Codeine 15mg Tab	00293504 Atasol-15	HOR
		00372331 Exdol-15	FRS
		00425370 Tylenol No.2	MCN
		00653241 Lenoltec No.2	TCH
		00687200 Novo-Gesic C-15	NOP
185	Acetaminophen Compound with Codeine 30mg Tab	00293512 Atasol-30	HOR
		00372358 Exdol-30	FRS
		00425389 Tylenol No.3	MCN
		00653276 Lenoltec No.3	TCH
		00687219 Novo-Gesic C-30	NOP
186	* Acetylsalicylic Acid 325mg Ent Tab	00010332 Entrophen	FRS
		00216666 Novasen	NOP
187	* Acetylsalicylic Acid 650mg Ent Tab	00010340 Entrophen	FRS
		00229296 Novasen	NOP

Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

188	* Acetylsalicylic Acid 325mg Tab	00036145 ASA 00040851 ASA 00092754 ASA	WAM LEA DTC
189	Acetylsalicylic Acid Compound with Codeine 15mg Tab	00095508 AC & C 00108103 282	DTC FRS
190	Acetylsalicylic Acid Compound with Codeine 30mg Tab	00095516 AC & C 00219843 292	DTC FRS
191	Codeine Phosphate 5mg/mL O/L	00093114 Codeine 00470651 Codeine Phosphate 00779474 Codeine	DTC SDR NDA
192	Codeine Phosphate 15mg Tab	00003220 Codeine 00018686 Codeine 00093122 Codeine 00593435 Codeine Phosphate	GLA NDA DTC TCH
193	Codeine Phosphate 30mg Tab	00003239 Codeine 00018694 Codeine 00093130 Codeine 00593451 Codeine Phosphate	GLA NDA DTC TCH
194	Codeine Phosphate 60mg Tab	00003247 Codeine 00093149 Codeine	GLA DTC
195	Diclofenac Sodium 25mg Ent Tab	00514004 Voltaren 00808539 Novo-Difenac +00839175 Apo-Diclo	GEI NOP APX
196	Diclofenac Sodium 50mg Ent Tab	00514012 Voltaren 00808547 Novo-Difenac +00839183 Apo-Diclo	GEI NOP APX
197	Ibuprofen 200mg Tab	00441643 Apo-Ibuprofen 00629324 Novo-Profen	APX NOP
198	Ibuprofen 300mg Tab	00327794 Motrin 00441651 Apo-Ibuprofen 00606200 Ibuprofen 00629332 Novo-Profen	UPJ APX KNR NOP

Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

199	Ibuprofen 400mg Tab	00364142 Motrin	UPJ
		00506052 Apo-Ibuprofen	APX
		00606219 Ibuprofen	KNR
		00629340 Novo-Profen	NOP
200	Ibuprofen 600mg Tab	00484911 Motrin	UPJ
		00585114 Apo-Ibuprofen	APX
		00606227 Ibuprofen	KNR
		00629359 Novo-Profen	NOP
201	Indomethacin 25mg Cap	00016039 Indocid	MSD
		00337420 Novo-Methacin	NOP
		00611158 Apo-Indomethacin	APX
		+00865850 Nu-Indo	NXP
202	Indomethacin 50mg Cap	00016047 Indocid	MSD
		00337439 Novo-Methacin	NOP
		00611166 Apo-Indomethacin	APX
		+00865869 Nu-Indo	NXP
203	Ketoprofen 50mg Cap	00336440 Orudis	RPP
		00761664 Rhodis	RHP
		00790427 Apo-Keto	APX
204	Ketoprofen 50mg Ent Tab	00566888 Orudis E- 50	RPP
		+00761672 Rhodis-EC	RHP
205	Ketoprofen 100mg Ent Tab	00663735 Orudis E-100	RPP
		+00761680 Rhodis-EC	RHP
206	Ketoprofen 100mg Sup	00499544 Orudis	RPP
		00761699 Rhodis	RHP
207	Morphine HCl 1mg/mL O/L	00486582 M.O.S.	ICN
		00607762 Morphitec- 1	TCH
208	Morphine HCl 5mg/mL O/L	00514217 M.O.S.	ICN
		00607770 Morphitec- 5	TCH
209	Morphine HCl 10mg/mL O/L	00632503 M.O.S.	ICN
		00690783 Morphitec-10	TCH
210	Morphine HCl 20mg/mL O/L	00632481 M.O.S.	ICN
		00690791 Morphitec-20	TCH

Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

211	Naproxen 125mg Tab	00299413 Naprosyn	SYN
		00522678 Apo-Naproxen	APX
		00565369 Novo-Naprox	NOP
		00615307 Naxen	SYP
		+00865621 Nu-Naprox	NXP
212	Naproxen 250mg Tab	00335193 Naprosyn	SYN
		00522651 Apo-Naproxen	APX
		00565350 Novo-Naprox	NOP
		00615315 Naxen	SYP
		+00865648 Nu-Naprox	NXP
213	Naproxen 375mg Tab	00583367 Naprosyn	SYN
		00600806 Apo-Naproxen	APX
		00615323 Naxen	SYP
		00627097 Novo-Naprox	NOP
		+00865656 Nu-Naprox	NXP
214	Naproxen 500mg Tab	00525537 Naprosyn	SYN
		00589861 Novo-Naprox	NOP
		00592277 Apo-Naproxen	APX
		00615331 Naxen	SYP
		+00865664 Nu-Naprox	NXP
215	Oxycodone HCl & Acetaminophen 5mg & 325mg Tab	00574384 Endocet	END
		00580201 Percocet	DUP
		00608165 Oxycocet	TCH
216	Oxycodone HCl & Acetylsalicylic Acid 5mg & 325mg Tab	00574392 Endodan	END
		00580236 Percodan	DUP
		00608157 Oxycodan	TCH
217	Phenylbutazone 100mg Tab	00010502 Butazolidin	GEI
		00021660 Novo-Butazone	NOP
		00093041 Phenylbutazone	DTC
		00312789 Apo-Phenylbutazone	APX
218	Piroxicam 10mg Cap	00525596 Feldene	PFI
		00642886 Apo-Piroxicam	APX
		00695718 Novo-Pirocam	NOP
		+00865761 Nu-Pirox	NXP
219	Piroxicam 20mg Cap	00525618 Feldene	PFI
		00642894 Apo-Piroxicam	APX
		00695696 Novo-Pirocam	NOP
		+00865788 Nu-Pirox	NXP
220	Propoxyphene Cap	00151351 Novo-Propoxyn	NOP
		00261432 Darvon-N	LIL

Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

221	Sulindac 150mg Tab	00456888 Clinoril	FRS
		00745588 Novo-Sundac	NOP
		00778354 Apo-Sulin	APX
222	Sulindac 200mg Tab	00432369 Clinoril	FRS
		00745596 Novo-Sundac	NOP
		00778362 Apo-Sulin	APX

28:12:00 Anticonvulsants

223	Carbamazepine 200mg Tab	00010405 Tegretol	GEI
		00402699 Apo-Carbamazepine	APX
		00504742 Mazepine	ICN
		00782718 Novo-Carbamaz	NOP
224	Phenobarbital 4mg/mL O/L	00588180 Phenobarbital	DTC
		00604585 Phenobarbital	SAN
225	Phenobarbital 15mg Tab	00023795 Phenobarbital	PDA
		00093505 Phenobarbital	DTC
		00271276 Phenobarbital-ICN	ICN
		#00604542 Phenobarbital	SAN
226	Phenobarbital 30mg Tab	00023809 Phenobarbital	PDA
		00093521 Phenobarbital	DTC
		00293903 Phenobarbital-ICN	ICN
		#00604550 Phenobarbital	SAN
227	Phenobarbital 60mg Tab	00023817 Phenobarbital	PDA
		00093556 Phenobarbital	DTC
		00320714 Phenobarbital-ICN	ICN
228	Phenobarbital 100mg Tab	00093564 Phenobarbital	DTC
		00344036 Phenobarbital-ICN	ICN
		#00604577 Phenobarbital	SAN
229	Primidone 125mg Tab	00002623 Mysoline	AYE
		00399310 Apo-Primidone	APX
230	Primidone 250mg Tab	00002631 Mysoline	AYE
		00396761 Apo-Primidone	APX

28:16:04 Psychotherapeutic Agents Antidepressants

231	Amitriptyline 10mg Tab	00016322 Elavil	MSD
		00037400 Novo-Triptyn	NOP
		00335053 Apo-Amitriptyline	APX
		00377872 Amitriptyline	DTC

Item 28:00 Central Nervous System Drugs

28:16:04 Psychotherapeutic Agents Antidepressants

232	Amitriptyline 25mg Tab	00016330 Elavil	MSD
		00037419 Novo-Triptyn	NOP
		00335061 Apo-Amitriptyline	APX
		00377880 Amitriptyline	DTC
233	Amitriptyline 50mg Tab	00016349 Elavil	MSD
		00037427 Novo-Triptyn	NOP
		00335088 Apo-Amitriptyline	APX
		00377899 Amitriptyline	DTC
234	Desipramine 25mg Tab	00010448 Pertofrane	GEI
		00353868 Norpramin	MER
235	Doxepin HCl 10mg Cap	00024325 Sinequan	PFI
		00842745 Triadapin	FIS
236	Doxepin HCl 25mg Cap	00024333 Sinequan	PFI
		00842753 Triadapin	FIS
237	Doxepin HCl 50mg Cap	00024341 Sinequan	PFI
		00842761 Triadapin	FIS
238	Doxepin HCl 75mg Cap	00400750 Sinequan	PFI
		00842788 Triadapin	FIS
239	Doxepin HCl 100mg Cap	00326925 Sinequan	PFI
		00842796 Triadapin	FIS
240	Doxepin HCl 150mg Cap	00584274 Sinequan	PFI
		00842818 Triadapin	FIS
241	Imipramine 10mg Tab	00010464 Tofranil	GEI
		00021504 Novo-Pramine	NOP
		00360201 Apo-Imipramine	APX
		00377902 Imipramine	DTC
242	Imipramine 25mg Tab	00010472 Tofranil	GEI
		00021512 Novo-Pramine	NOP
		00312797 Apo-Imipramine	APX
		00377910 Imipramine	DTC
243	Imipramine 50mg Tab	00010480 Tofranil	GEI
		00021520 Novo-Pramine	NOP
		00326852 Apo-Imipramine	APX
		00377929 Imipramine	DTC

Item 28:00 Central Nervous System Drugs

28:16:04 Psychotherapeutic Agents Antidepressants

244	Trimipramine 75mg Cap	00442437 Surmontil	RPP
		00761656 Rhotrimine	RHP
245	Trimipramine 12.5mg Tab	00025828 Surmontil	RPP
		00740799 Apo-Trimip	APX
		00761605 Rhotrimine	RHP
246	Trimipramine 25mg Tab	00025836 Surmontil	RPP
		00740802 Apo-Trimip	APX
		00761613 Rhotrimine	RHP
247	Trimipramine 50mg Tab	00025844 Surmontil	RPP
		00740810 Apo-Trimip	APX
		00761621 Rhotrimine	RHP
248	Trimipramine 100mg Tab	00025852 Surmontil	RPP
		00740829 Apo-Trimip	APX
		00761648 Rhotrimine	RHP

28:16:08 Psychotherapeutic Agents Tranquilizers

249	Alprazolam 0.25mg Tab	00548359 Xanax	UPJ
		00677485 Alprazolam	KNR
		+00865397 Apo-Alpraz	APX
250	Alprazolam 0.5mg Tab	00548367 Xanax	UPJ
		00677477 Alprazolam	KNR
		+00865400 Apo-Alpraz	APX
251	Chlordiazepoxide 5mg Cap	00012629 Librium	HLR
		00020915 Novo-Poxide	NOP
		00398403 Chlordiazepoxide	DTC
		00522724 Apo-Chlordiazepoxide	APX
252	Chlordiazepoxide 10mg Cap	00012637 Librium	HLR
		00013471 Solium	HOR
		00020923 Novo-Poxide	NOP
		00398411 Chlordiazepoxide	DTC
		00522988 Apo-Chlordiazepoxide	APX
253	Chlordiazepoxide 25mg Cap	00012645 Librium	HLR
		00013498 Solium	HOR
		00020931 Novo-Poxide	NOP
		00398438 Chlordiazepoxide	DTC
		00522996 Apo-Chlordiazepoxide	APX
254	Chlorpromazine 20mg/mL O/L	00025178 Largactil	RPP
		00580988 Chlorpromanyl 20	TCH

Item 28:00 Central Nervous System Drugs

28:16:08 Psychotherapeutic Agents Tranquilizers

255	Chlorpromazine 10mg Tab	00025453 Largactil 00232157 Novo-Chlorpromazine	RPP NOP
256	Chlorpromazine 25mg Tab	00025461 Largactil 00232823 Novo-Chlorpromazine	RPP NOP
257	Chlorpromazine 50mg Tab	00025488 Largactil 00232807 Novo-Chlorpromazine	RPP NOP
258	Chlorpromazine 100mg Tab	00025496 Largactil 00232831 Novo-Chlorpromazine	RPP NOP
259	Clorazepate Dipotassium 3.75mg Cap	00264938 Tranxene 00628190 Novo-Clopatate +00860689 Apo-Clorazepate	ABB NOP APX
260	Clorazepate Dipotassium 7.5mg Cap	00264946 Tranxene 00628204 Novo-Clopatate +00860700 Apo-Clorazepate	ABB NOP APX
261	Clorazepate Dipotassium 15mg Cap	00264911 Tranxene 00628212 Novo-Clopatate +00860697 Apo-Clorazepate	ABB NOP APX
262	Diazepam 2mg Tab	00013277 Valium 00013757 Vivol 00272434 Novo-Dipam #00272647 E-Pam 00405329 Apo-Diazepam 00466905 Diazepam	HLR HOR NOP ICN APX DTC
263	Diazepam 5mg Tab	00013285 Valium 00013765 Vivol 00272442 Novo-Dipam 00362158 Apo-Diazepam 00396230 Diazepam	HLR HOR NOP APX DTC
264	Diazepam 10mg Tab	00013293 Valium 00013773 Vivol 00272450 Novo-Dipam #00272639 E-Pam 00405337 Apo-Diazepam 00466891 Diazepam	HLR HOR NOP ICN APX DTC
265	Fluphenazine HCl 1mg Tab	00029378 Moditen HCl 00405345 Apo-Fluphenazine	SQU APX

Item 28:00 Central Nervous System Drugs

28:16:08 Psychotherapeutic Agents Tranquilizers

266	Fluphenazine HCl 2mg Tab	00029386 Moditen HCl	SQU
		00410632 Apo-Fluphenazine	APX
267	Fluphenazine HCl 5mg Tab	00029408 Moditen HCl	SQU
		00405361 Apo-Fluphenazine	APX
		#00504459 Permitil	SCH
268	Haloperidol 2mg/mL O/L	00017582 Haldol	MCN
		00552429 Peridol	TCH
		00587702 Apo-Haloperidol	APX
		00749400 Haloperidol	KNR
269	Haloperidol 0.5mg Tab	00017655 Haldol	MCN
		00363685 Novo-Peridol	NOP
		00396796 Apo-Haloperidol	APX
		00552135 Peridol	TCH
		00749419 Haloperidol	KNR
270	Haloperidol 1mg Tab	00017663 Haldol	MCN
		00363677 Novo-Peridol	NOP
		00396818 Apo-Haloperidol	APX
		00552143 Peridol	TCH
		00749427 Haloperidol	KNR
271	Haloperidol 2mg Tab	00017671 Haldol	MCN
		00363669 Novo-Peridol	NOP
		00396826 Apo-Haloperidol	APX
		00749435 Haloperidol	KNR
272	Haloperidol 5mg Tab	00017698 Haldol	MCN
		00363650 Novo-Peridol	NOP
		00396834 Apo-Haloperidol	APX
		00749443 Haloperidol	KNR
273	Haloperidol 10mg Tab	00381772 Haldol	MCN
		00463698 Apo-Haloperidol	APX
		00713449 Novo-Peridol	NOP
		00749451 Haloperidol	KNR
274	Haloperidol 20mg Tab	00499579 Haldol	MCN
		00768820 Novo-Peridol	NOP
275	Hydroxyzine HCl 10mg Cap	00024376 Atarax	PFI
		00646059 Apo-Hydroxyzine	APX
		00723487 Multipax	ROR
		00738824 Novo-Hydroxyzin	NOP

Item 28:00 Central Nervous System Drugs

28:16:08 Psychotherapeutic Agents Tranquilizers

276	Hydroxyzine HCl 25mg Cap	00024384 Atarax	PFI
		00646024 Apo-Hydroxyzine	APX
		00723479 Multipax	ROR
		00738832 Novo-Hydroxyzin	NOP
277	Hydroxyzine HCl 50mg Cap	00024392 Atarax	PFI
		00646016 Apo-Hydroxyzine	APX
		00723592 Multipax	ROR
		00738840 Novo-Hydroxyzin	NOP
278	Lorazepam 0.5mg Tab	00399124 Ativan	WYE
		00655740 Apo-Lorazepam	APX
		00711101 Novo-Lorazem	NOP
		+00865672 Nu-Loraz	NXP
279	Lorazepam 1mg Tab	00348325 Ativan	WYE
		00637742 Novo-Lorazem	NOP
		00655759 Apo-Lorazepam	APX
		+00865680 Nu-Loraz	NXP
280	Lorazepam 2mg Tab	00348333 Ativan	WYE
		00637750 Novo-Lorazem	NOP
		00655767 Apo-Lorazepam	APX
		+00865699 Nu-Loraz	NXP
281	Meprobamate 400mg Tab	00021547 Novo-Mepro	NOP
		00034142 Equanil	WYE
		00092738 Meprobamate	DTC
		00337943 Apo-Meprobamate	APX
282	Oxazepam 10mg Tab	00295701 Serax	WYE
		00402680 Apo-Oxazepam	APX
		00483893 Oxazepam	DTC
		00500852 Novoxapam	NOP
283	Oxazepam 15mg Tab	00295698 Serax	WYE
		00402745 Apo-Oxazepam	APX
		00483915 Oxazepam	DTC
		00496529 Novoxapam	NOP
284	Oxazepam 30mg Tab	00231363 Serax	WYE
		00402737 Apo-Oxazepam	APX
		00483907 Oxazepam	DTC
		00496537 Novoxapam	NOP
285	Perphenazine 2mg Tab	00028290 Trilafon	SCH
		00335134 Apo-Perphenazine	APX
		00456039 Perphenazine	DTC

Item 28:00 Central Nervous System Drugs

28:16:08 Psychotherapeutic Agents Tranquilizers

286	Perphenazine 4mg Tab	00028304 Trilafon	SCH
		00335126 Apo-Perphenazine	APX
		00456047 Perphenazine	DTC
287	Perphenazine 8mg Tab	00028312 Trilafon	SCH
		00335118 Apo-Perphenazine	APX
		00456055 Perphenazine	DTC
288	Perphenazine 16mg Tab	00028320 Trilafon	SCH
		00335096 Apo-Perphenazine	APX
		00481920 Perphenazine	DTC
289	Thioridazine 2mg/mL O/L	00027375 Mellaril	SAN
		00238775 Thioridazine	SAP
290	Thioridazine 10mg Tab	00027529 Mellaril	SAN
		00037508 Novo-Ridazine	NOP
		00360228 Apo-Thioridazine	APX
		00456063 Thioridazine	DTC
		00575119 PMS-Thioridazine	PMS
291	Thioridazine 25mg Tab	00027537 Mellaril	SAN
		00037494 Novo-Ridazine	NOP
		00360198 Apo-Thioridazine	APX
		00456071 Thioridazine	DTC
		00575127 PMS-Thioridazine	PMS
292	Thioridazine 50mg Tab	00027545 Mellaril	SAN
		00037486 Novo-Ridazine	NOP
		00360236 Apo-Thioridazine	APX
		00456098 Thioridazine	DTC
		00575135 PMS-Thioridazine	PMS
293	Thioridazine 100mg Tab	00027553 Mellaril	SAN
		00037478 Novo-Ridazine	NOP
		00360244 Apo-Thioridazine	APX
		00456101 Thioridazine	DTC
		00575143 PMS-Thioridazine	PMS
294	Trifluoperazine 10mg/mL O/L	00027022 Stelazine	SKF
		00298212 Terfluzine	ICN
295	Trifluoperazine 1mg Tab	00021857 Novo-Flurazine	NOP
		00027146 Stelazine	SKF
		00249068 Trifluoperazine	DTC
		00345539 Apo-Trifluoperazine	APX

Item 28:00 Central Nervous System Drugs

28:16:08 Psychotherapeutic Agents Tranquilizers

296	Trifluoperazine 2mg Tab	00021865	Novo-Flurazine	NOP
		00027154	Stelazine	SKF
		00249076	Trifluoperazine	DTC
		00312754	Apo-Trifluoperazine	APX
297	Trifluoperazine 5mg Tab	00013919	Solazine	HOR
		00021873	Novo-Flurazine	NOP
		00027162	Stelazine	SKF
		00249084	Trifluoperazine	DTC
		#00271527	Terfluzine	ICN
00312746	Apo-Trifluoperazine	APX		
298	Trifluoperazine 10mg Tab	00013927	Solazine	HOR
		00021881	Novo-Flurazine	NOP
		00027170	Stelazine	SKF
		00249092	Trifluoperazine	DTC
		#00280399	Terfluzine	ICN
00326836	Apo-Trifluoperazine	APX		

28:24:00 Sedatives and Hypnotics

299	Chloral Hydrate 500mg Cap	00020893	Novo-Chlorhydrate	NOP
		00029041	Noctec	SQU
		00092886	Chloral Hydrate	DTC
300	Flurazepam 15mg Cap	00012696	Dalmane	HLR
		00496545	Novo-Flupam	NOP
		00521698	Apo-Flurazepam	APX
301	Flurazepam 30mg Cap	00012718	Dalmane	HLR
		00496553	Novo-Flupam	NOP
		00521701	Apo-Flurazepam	APX
302	Pentobarbital Sodium 100mg Cap	00000086	Nembutal	ABB
		00020990	Novo-Pentobarb	NOP
303	Phenobarbital 4mg/mL O/L	00588180	Phenobarbital	DTC
		00604585	Phenobarbital	SAN
304	Phenobarbital 15mg Tab	00023795	Phenobarbital	PDA
		00093505	Phenobarbital	DTC
		00271276	Phenobarbital-ICN	ICN
		#00604542	Phenobarbital	SAN
305	Phenobarbital 30mg Tab	00023809	Phenobarbital	PDA
		00093521	Phenobarbital	DTC
		00293903	Phenobarbital-ICN	ICN
		#00604550	Phenobarbital	SAN

Item 28:00 Central Nervous System Drugs

28:24:00 Sedatives and Hypnotics

306	Phenobarbital 60mg Tab	00023817	Phenobarbital	PDA
		00093556	Phenobarbital	DTC
		00320714	Phenobarbital-ICN	ICN
307	Phenobarbital 100mg Tab	00093564	Phenobarbital	DTC
		00344036	Phenobarbital-ICN	ICN
		#00604577	Phenobarbital	SAN
308	Promethazine HCl 2mg/mL O/L	00025429	Phenergan	RPP
		00583979	PMS-Promethazine	PMS
309	Secobarbital Sodium 100mg Cap	00015288	Seconal	LIL
		00021032	Novo-Secobarb	NOP
310	Triazolam 0.125mg Tab	00512559	Halcion	UPJ
		00614351	Triazolam	KNR
		00808563	Apo-Triazo	APX
		+00886084	Nu-Triazo	NXP
311	Triazolam 0.25mg Tab	00443158	Halcion	UPJ
		00614378	Triazolam	KNR
		00808571	Apo-Triazo	APX
		00872431	Novo-Triolam	NOP
		+00886092	Nu-Triazo	NXP

Item 40:00 Electrolytic, Caloric and Water Balance

40:08:00 Alkalinizing Agents

312	Sodium Bicarbonate 300mg Tab	00093068 Sodium Bicarbonate	DTC
		00179884 Soda Mint	SDR

40:12:00 Replacement Agents

313	Calcium Carbonate Eq to 250mg Elemental Calcium Tab	00541915 Os-Cal 250	AYE
		00645958 Calcium-250	NOP
		00682047 Apo-Cal 250	APX

314	Calcium Carbonate Eq to 500mg Elemental Calcium Tab	00541907 Os-cal 500	AYE
		#00640360 Calcium	SDR
		00645923 Calcium-500	NOP
		00682039 Apo-Cal 500	APX

315	Calcium Gluconate Eq to 60mg Elemental Calcium Tab	00094773 Calcium Gluconate	DTC
		00179698 Calcium Gluconate	SDR
		00241717 Calcium Gluconate	WAM
		00441473 Calcium Gluconate	NOP

316	Calcium Lactate Eq to 84mg Elemental Calcium Tab	00021253 Calcium Lactate	NOP
		00023590 Calcium Lactate	PDA
		00179671 Calcium Lactate	SDR

317	Electrolyte & Dextrose O/L	00630365 Pedialyte Regular	ABB
		00981095 Pedialyte Flavored	ABB

318	Polyethylene Glycol & Electrolytes Pd 1 Kit	00741175 Klean-Prep	RIC
		+00777838 PegLyte	PMS

319	* Potassium Chloride 1.33mEq/mL O/L	00208590 Kaochlor-10	ADI
		00436984 K-10	BEE
		00485284 Roychlor	ROY
		#00704504 Kay Ciel	BER

320	* Potassium Gluconate 1.33mEq/mL O/L	00026700 Potassium-Rougier	ROG
		00208701 Kaon	ADI

40:28:00 Diuretics

321	Acetazolamide 250mg Tab	00014907 Diamox	LED
		00488275 Novo-Zolamide	NOP
		00545015 Apo-Acetazolamide	APX

322	Amiloride HCl & Hydrochlorothiazide 5mg & 50mg Tab	00487813 Moduret	MSD
		00784400 Apo-Amilzide	APX
		+00886106 Nu-Amilzide	NXP

Item 40:00 Electrolytic, Caloric and Water Balance

40:28:00 Diuretics

323	Chlorthalidone 50mg Tab	00010413 Hygroton	GEI
		00298964 Uridon	ICN
		00337447 Novo-Thalidone	NOP
		00360279 Apo-Chlorthalidone	APX
		00398365 Chlorthalidone	DTC
324	Chlorthalidone 100mg Tab	00010421 Hygroton	GEI
		#00293881 Uridon	ICN
		00337455 Novo-Thalidone	NOP
		00360287 Apo-Chlorthalidone	APX
		00398373 Chlorthalidone	DTC
325	Furosemide 20mg Tab	00289590 Lasix	HOE
		00337730 Novo-Semide	NOP
		00396788 Apo-Furosemide	APX
326	Furosemide 40mg Tab	00012580 Lasix	HOE
		00332275 Furoside	ICN
		00337749 Novo-Semide	NOP
		00344079 Uritol	HOR
		00362166 Apo-Furosemide	APX
		00396249 Furosemide	DTC
327	Hydrochlorothiazide 25mg Tab	00016500 HydroDIURIL	MSD
		00021474 Novo-Hydrazide	NOP
		00092681 Hydrochlorothiazide	DTC
		00326844 Apo-Hydro 25	APX
328	Hydrochlorothiazide 50mg Tab	00016519 HydroDIURIL	MSD
		00021482 Novo-Hydrazide	NOP
		00092703 Hydrochlorothiazide	DTC
		00312800 Apo-Hydro 50	APX
329	Hydrochlorothiazide & Spironolactone 25mg & 25mg Tab	00180408 Aldactazide-25	SEA
		00613231 Novo-Spirozine-25	NOP
330	Hydrochlorothiazide & Spironolactone 50mg & 50mg Tab	00594377 Aldactazide-50	SEA
		00657182 Novo-Spirozine-50	NOP
331	Hydrochlorothiazide & Triamterene 25mg & 50mg Tab	00181528 Dyazide	SKF
		00441775 Apo-Triazide	APX
		00532657 Novo-Triamzide	NOP
		+00865532 Nu-Triazide	NXP
332	Spironolactone 25mg Tab	00028606 Aldactone	SEA
		00613215 Novo-Spiroton	NOP

Item 40:00 Electrolytic, Caloric and Water Balance

40:28:00 Diuretics

333	Spirolactone 100mg Tab	00285455 Aldactone 00613223 Novo-Spiroton	SEA NOP
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40:40:00 Uricosuric Drugs

334	Probenecid 500mg Tab	00016616 Benemid 00294926 Benuryl	MSD ICN
335	Sulfinpyrazone 100mg Tab	00010510 Anturan 00441759 Apo-Sulfinpyrazone 00475068 Novo-Pyrazone 00481955 Sulfinpyrazone	GEI APX NOP DTC
336	Sulfinpyrazone 200mg Tab	00010529 Anturan 00441767 Apo-Sulfinpyrazone 00475076 Novo-Pyrazone 00481947 Sulfinpyrazone	GEI APX NOP DTC

Item 48:00 Cough Preparations

48:04:00 Antitussives

337	Codeine Phosphate 5mg/mL O/L	00093114 Codeine 00470651 Codeine Phosphate 00779474 Codeine	DTC SDR NDA
338	Codeine Phosphate 15mg Tab	00003220 Codeine 00018686 Codeine 00093122 Codeine 00593435 Codeine Phosphate	GLA NDA DTC TCH
339	* Dextromethorphan HBr 3mg/mL O/L	00436895 Koffex 00454389 Robidex	ROG ROB
340	Hydrocodone Bitartrate 1mg/mL O/L	00316970 Robidone 00585580 Hycodan	ROB DUP

48:08:00 Expectorants

341	* Guaifenesin 20mg/mL O/L	00026468 Robitussin 00026794 Guaifenesin 00990930 Guaifenesin Sugar Free	ROB ROG ROG
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Item 52:00 Eye, Ear, Nose and Throat Preparations

52:04:04 Anti-Infectives Antibiotics

342	Chloramphenicol 1% Oph Oint-3.5g Pk	00001058 Fenicol	ALC
		00024066 Chloromycetin	PDA
343	Chloramphenicol 0.5% Oph Sol	00001082 Chloroptic	ALL
		00221678 Chloromycetin	PDA
		00707457 Ophtho-Chloram	KNR
344	Gentamicin Sulfate 0.3% Oph Sol	00436771 Alcomycin	ALC
		00512192 Garamycin	SCH

52:04:08 Anti-Infectives Sulfonamides

345	Sulfacetamide (Sodium) 10% Oph Oint-3.5g Pk	00028347 Sulamyd	SCH
		00252522 Cetamide	ALC
346	Sulfacetamide (Sodium) 10% Oph Sol	00000965 Isopto Cetamide	ALC
		00001287 Bleph-10	ALL
		00028053 Sulamyd	SCH
		00707465 Ophtho-Sulf	KNR

52:08:00 Anti-Inflammatory Agents

347	Beclomethasone Dipropionate Nas Sp-200 dose Pk	00359688 Beconase	GLA
		00422053 Vancenase	SCH
348	Dexamethasone 0.1% Oph/Ot Sol	00016217 Decadron	MSD
		00627763 Ak-Dex	AKN
		00724149 Spersadex	DIS
349	Prednisolone Acetate 1% Oph Susp	00301175 Pred Forte	ALL
		00622931 Ak-Tate	AKN
		00700401 Ophtho-Tate	KNR

52:20:00 Miotics

350	Pilocarpine HCl 1% Oph Sol	00000841 Isopto Carpine	ALC
		00725404 Spersacarpine	DIS
		00759945 Miocarpine	IOB
351	Pilocarpine HCl 2% Oph Sol	00000868 Isopto Carpine	ALC
		00725412 Spersacarpine	DIS
		00759961 Miocarpine	IOB
352	Pilocarpine HCl 4% Oph Sol	00000884 Isopto Carpine	ALC
		00725439 Spersacarpine	DIS
		00760099 Miocarpine	IOB

Item 52:00 Eye, Ear, Nose and Throat Preparations

52:20:00 Miotics

353	Pilocarpine HCl 6% Oph Sol	00000892 Isopto Carpine 00759953 Miocarpine	ALC IOB
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52:24:00 Mydriatics

354	Atropine Sulfate 1% Oph Oint-3.5g Pk	00252484 Atropine Sulfate 00725471 Atropine	ALC DIS
355	Atropine Sulfate 1% Oph Sol	00035017 Isopto Atropine 00725498 Atropine 00759929 Atropisol	ALC DIS IOB

52:32:00 Vasoconstrictors

356	Naphazoline HCl 0.1% Oph Sol	00001147 Albalon 00390283 Naphcon Forte 00750786 Opcon 00759880 Vasocon	ALL ALC BAU IOB
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52:36:00 Other Eye, Ear, Nose and Throat Agents

357	Acetazolamide 250mg Tab	00014907 Diamox 00488275 Novo-Zolamide 00545015 Apo-Acetazolamide	LED NOP APX
358	* Methylcellulose 1% Oph Sol	00000817 Isopto Tears 00750808 Murocel	ALC BAU
359	Timolol Maleate 0.25% Oph Sol	00451193 Timoptic 00755826 Apo-Timop	MSD APX
360	Timolol Maleate 0.5% Oph Sol	00451207 Timoptic 00755834 Apo-Timop	MSD APX

Item 56:00 Gastrointestinal Drugs

56:04:00 Antacids and Adsorbents

361	Aluminum Hydroxide & Magnesium Hydroxide 600mg & 300mg Chew Tab	00541125 Maalox TC 00621544 Diovol Ex	ROR HOR
362	* Aluminum Hydroxide & Magnesium Hydroxide 40mg & 40mg/mL O/L	00013625 Univol 00026530 Maalox 00261173 Neutralca-S 00476471 Gelusil	HOR ROR DES PDA
363	Aluminum Hydroxide & Magnesium Hydroxide 120mg & 60mg/mL O/L	00491217 Diovol Ex 00497037 Maalox TC	HOR ROR
364	Aluminum Hydroxide & Magnesium Hydroxide 400mg & 400mg Tab	00026549 Maalox 00483605 Gelusil Extra Strength	ROR PDA
365	* Magnesium Hydroxide 80mg/mL O/L	00036218 Milk of Magnesia 00093807 Milk of Magnesia	WAM DTC

56:12:00 Cathartics

366	* Bisacodyl 5mg Ent Tab	00254142 Dulcolax 00545023 Apo-Bisacodyl	BOE APX
367	Bisacodyl 5mg Sup	00003867 Dulcolax 00619485 Bisacodyl	BOE TCH
368	* Bisacodyl 10mg Sup	00003875 Dulcolax 00261327 Bisacolax 00404802 Bisacodyl	BOE ICN TCH
369	Castor Oil O/L	00094080 Castor Oil 00179140 Castor Oil	DTC SDR
370	Docusate Calcium (Dioctyl Calcium Sulfosuccinate) 240mg Cap	00012491 Surfak 00664553 PMS-Docusate Calcium	HOE PMS
371	* Docusate Sodium (Dioctyl Sodium Sulfosuccinate) 100mg Cap	00464767 Colace 00472166 Regulex 00703494 PMS-Docusate Sodium 00716731 Docusate Sodium	BRI AYE PMS TAR

Item 56:00 Gastrointestinal Drugs

56:12:00 Cathartics

372	Docosate Sodium (Dioctyl Sodium Sulfosuccinate) 4mg/mL O/L	00464783 Colace 00703508 PMS-Docusate Sodium Syrup	BRI PMS
373	* Glycerin 1.8g Sup	00094056 Glycerin 00145416 Glycerin	DTC ROG
374	* Glycerin 2.7g Sup	00882518 Glycerin 00990825 Glycerin	DTC ROG
375	* Grain & Citrus Fibre Tab	00595829 Novo-Fibre 00779768 Fibyrax	NOP LED
376	* Magnesium Hydroxide 80mg/mL O/L	00036218 Milk of Magnesia 00093807 Milk of Magnesia	WAM DTC
377	* Psyllium Mucilloid Oral Pd	00242438 Metamucil 00551546 Novo-Mucilax 00587559 Fibre Mucilax 00628875 Natural Source Laxative 00643688 Metamucil Sugar Free +00678945 Novo-Mucilax Sugar Free	SEA NOP SDR LEA SEA NOP
378	* Sennosides A & B 8.6mg Tab	00026158 Senokot 00604402 Glysennid	PFR SAN
379	* Sodium Biphosphate & Sodium Phosphate 160mg & 60mg/mL Rect Sol	00009911 Fleet 00528463 ABCO Sodium Phosphate Enema	FRS MEM

56:22:00 Antiemetics and Antinauseants

380	* Dimenhydrinate 50mg Tab	00013803 Gravol Filmkote 00021423 Novo-Dimenate 00363766 Apo-Dimenhydrinate 00398381 Dimenhydrinate 00586331 PMS-Dimenhydrinate	HOR NOP APX DTC PMS
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56:40:00 Miscellaneous G.I. Drugs

381	Cimetidine 200mg Tab	00546232 Peptol 00563560 Tagamet 00582409 Novo-Cimetidine 00584215 Apo-Cimetidine +00865796 Nu-Cimet	HOR SKP NOP APX NXP
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Item 56:00 Gastrointestinal Drugs

56:40:00 Miscellaneous G.I. Drugs

382	Cimetidine 300mg Tab	00397474 Tagamet	SKF
		00487872 Apo-Cimetidine	APX
		00546240 Peptol	HOR
		00582417 Novo-Cimetidine	NOP
		+00865818 Nu-Cimet	NXP
383	Cimetidine 400mg Tab	00563579 Tagamet	SKF
		00568449 Peptol	HOR
		00600059 Apo-Cimetidine	APX
		00603678 Novo-Cimetidine	NOP
		+00865826 Nu-Cimet	NXP
384	Cimetidine 600mg Tab	00563587 Tagamet	SKF
		00584282 Peptol	HOR
		00600067 Apo-Cimetidine	APX
		00603686 Novo-Cimetidine	NOP
		+00865834 Nu-Cimet	NXP
385	Cimetidine 800mg Tab	00618616 Peptol	HOR
		00653411 Tagamet	SKF
		00663727 Novo-Cimetidine	NOP
		00749494 Apo-Cimetidine	APX
386	Hydrocortisone 100mg/60mL Enema-60mL Pk	00230316 Hycort	ICN
		00661856 Cortenema	INF
387	Lactulose 666.7mg/mL O/L	00444316 Cephalac	MER
		00690686 Acilac	TCH
388	Metoclopramide HCl 10mg/2mL Inj Sol-2mL Pk	00314706 Maxeran	NRD
		00386006 Reglan	ROB
389	Metoclopramide HCl 1mg/mL O/L	00314714 Maxeran	NRD
		00386022 Reglan	ROB
390	Metoclopramide HCl 5mg Tab	00572268 Maxeran	NRD
		00631671 Reglan	ROB
		00842826 Apo-Metoclop	APX
391	Metoclopramide HCl 10mg Tab	00314722 Maxeran	NRD
		00386014 Reglan	ROB
		00603775 Emex	BEE
		00842834 Apo-Metoclop	APX
392	Ranitidine HCl 150mg Tab	00553379 Zantac	GLA
		00733059 Apo-Ranitidine	APX
		00828564 Novo-Ranitidine	NOP
		00828823 Ranitidine	KNR
		+00865737 Nu-Ranit	NXP

Item 56:00 Gastrointestinal Drugs

56:40:00 Miscellaneous G.I. Drugs

393	Ranitidine HCl		
	300mg Tab		
		00641790 Zantac	GLA
		00733067 Apo-Ranitidine	APX
		00828556 Novo-Ranitidine	NOP
		00828688 Ranitidine	KNR
		+00865745 Nu-Ranit	NXP

Item 68:00 Hormones and Substitutes

68:04:00 Corticosteroids

394	Beclomethasone Dipropionate Aero Pd-200 dose Pk	00334243 Becloment 00374407 Vanceril	GLA SCH
395	Cortisone Acetate 25mg Tab	00016446 Cortone 00249963 Cortisone 00280437 Cortisone-ICN	MSD UPJ ICN
396	Dexamethasone 0.5mg Tab	00016462 Decadron 00295094 Dexasone #00501050 Deronil	MSD ICN SCH
397	Dexamethasone 4mg Tab	00354309 Decadron 00489158 Dexasone #00504416 Deronil	MSD ICN SCH
398	Prednisone 1mg Tab	00271373 Winpred 00598194 Apo-Prednisone	ICN APX
399	Prednisone. 5mg Tab	00021695 Novo-Prednisone 00093629 Prednisone 00210188 Deltasone 00312770 Apo-Prednisone 00610623 Prednisone	NOP DTC UPJ APX KNR
400	Prednisone 50mg Tab	00232378 Novo-Prednisone 00252417 Deltasone 00550957 Apo-Prednisone	NOP UPJ APX

68:16:00 Estrogens

401	Conjugated Estrogens 0.625mg Tab	00002577 Premarin 00265470 C.E.S.	AYE ICN
402	Conjugated Estrogens 1.25mg Tab	00002585 Premarin 00265489 C.E.S.	AYE ICN

68:20:02 Anti-Diabetic Agents Oral Anti-Diabetic Agents

403	Chlorpropamide 100mg Tab	00024708 Diabinese 00399302 Apo-Chlorpropamide	PFI APX
404	Chlorpropamide 250mg Tab	00021350 Novo-Propamide 00024716 Diabinese 00312711 Apo-Chlorpropamide 00377937 Chlorpropamide	NOP PFI APX DTC

Item 68:00 Hormones and Substitutes

68:20:02 Anti-Diabetic Agents Oral Anti-Diabetic Agents

405	Glyburide 2.5mg Tab	00454753 Diabeta	HOE
		00720933 Euglucon	BOM
		+00808733 Alpha-Glibenclamide	GEN
406	Glyburide 5mg Tab	00012599 Diabeta	HOE
		00720941 Euglucon	BOM
		+00808741 Alpha-Glibenclamide	GEN
407	Tolbutamide 500mg Tab	00012602 Orinase	HOE
		00013889 Mobenol	HOR
		00021849 Novo-Butamide	NOP
		00093033 Tolbutamide	DTC
		00312762 Apo-Tolbutamide	APX

68:36:00 Thyroids

408	Levothyroxine (Sodium) 0.05mg Tab	00009652 Synthroid	FLI
		00012289 Eltroxin	GLA
409	Levothyroxine (Sodium) 0.1 mg Tab	00009660 Synthroid	FLI
		00012297 Eltroxin	GLA
410	Levothyroxine (Sodium) 0.15mg Tab	00212164 Synthroid	FLI
		00295582 Eltroxin	GLA
411	Levothyroxine (Sodium) 0.2 mg Tab	00009687 Synthroid	FLI
		00012300 Eltroxin	GLA
412	Levothyroxine (Sodium) 0.3 mg Tab	00009695 Synthroid	FLI
		00012319 Eltroxin	GLA
413	Thyroid 30mg Tab	00023949 Thyroid	PDA
		00483583 Proloid	PDA
414	Thyroid 60mg Tab	00023957 Thyroid	PDA
		00483540 Proloid	PDA
415	Thyroid 125mg Tab	00023965 Thyroid	PDA
		00483559 Proloid	PDA

Item 84:00 Skin and Mucous Membrane Preparations

84:04:04 Anti-Infectives Antibiotics

416	Bacitracin 500U/g Oint	00012351 Bacitracin 00031046 Baciguent	GLA UPJ
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84:04:08 Anti-Infectives Fungicides

417	Clotrimazole 10mg/g Cr	00513903 Canesten 00516805 Myclo +00812382 Clotrimaderm	MIT BOE TAR
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418	Clotrimazole 10mg/mL Top Sol	00513911 Canesten 00516821 Myclo	MIT BOE
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419	Clotrimazole 10mg/g Vag Cr-App	00513938 Canesten 00516813 Myclo +00812366 Clotrimaderm Vaginal Cream	MIT BOE TAR
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420	Clotrimazole 20mg/g Vag Cr-App	00576492 Canesten 3 +00812374 Clotrimaderm Vaginal Cream	MIT TAR
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421	Clotrimazole 100mg Vag Tab	00513946 Canesten 00516848 Myclo	MIT BOE
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422	Miconazole Nitrate 2% Cr	00326968 Micatin 00497797 Monistat Derm	MCN ORT
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423	Nystatin 100000U/g Cr	00029092 Mycostatin 00288217 Nadostine 00449792 Nilstat 00716871 Nyaderm	SQU NDA LED TAR
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424	Nystatin 100000U/g Oint	00029556 Mycostatin 00288195 Nadostine 00449806 Nilstat 00716898 Nyaderm	SQU NDA LED TAR
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425	Nystatin 25000U/g Vag Cr	00288209 Nadostine 00295973 Mycostatin 00716901 Nyaderm	NDA SQU TAR
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426	Nystatin 100000U Vag Tab	00015067 Nilstat 00029491 Mycostatin 00270091 Nadostine	LED SQU NDA
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Item 84:00 Skin and Mucous Membrane Preparations

84:04:12 Anti-Infectives Parasiticides

427	Lindane (Gamma Benzene Hexachloride) 1% Shampoo	00026220 Kwellada 00351105 GBH	RCA ROR
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84:04:16 Anti-Infectives Other Anti-Infectives

428	* Povidone - Iodine 10% Top Sol	00158348 Betadine 00172944 Proviiodine	PFR ROG
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429	Povidone - Iodine 10% Vag Gel	00026034 Betadine 00026611 Proviiodine	PFR ROG
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430	Povidone - Iodine 10% Vag Sol	00026093 Betadine 00252824 Proviiodine	PFR ROG
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84:06:00 Anti-Inflammatory Agents

431	Betamethasone Valerate 0.05% Cr	00011916 Betnovate-1/2 00027898 Celestoderm-V/2 00535427 Ectosone Mild 00716618 Betaderm	GLA SCH TCH TAR
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432	Betamethasone Valerate 0.1% Cr	00011924 Betnovate 00027901 Celestoderm-V 00535435 Ectosone Regular 00716626 Betaderm	GLA SCH TCH TAR
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433	Betamethasone Valerate 0.05% Lot	00011932 Betnovate-1/2 00653209 Ectosone Mild	GLA TCH
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434	Betamethasone Valerate 0.1% Lot	00011940 Betnovate 00750050 Ectosone Regular	GLA TCH
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435	Betamethasone Valerate 0.05% Oint	00012378 Betnovate-1/2 00028355 Celestoderm-V/2 00716642 Betaderm	GLA SCH TAR
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436	Betamethasone Valerate 0.1% Oint	00012386 Betnovate 00028363 Celestoderm-V 00716650 Betaderm	GLA SCH TAR
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437	Betamethasone Valerate 0.1% Scalp Lot	00027944 Valisone 00653217 Ectosone 00716634 Betaderm 00726486 Betamethasone Valerate	SCH TCH TAR PHO
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Item 84:00 Skin and Mucous Membrane Preparations

84:06:00 Anti-Inflammatory Agents

438	Bufexamac 5% Cr	00441147 Norfemac 00695874 Parfenac	NRD LED
439	Bufexamac 5% Oint	00441155 Norfemac 00695882 Parfenac	NRD LED
440	Fluocinolone Acetonide 0.01% Cr	00030414 Synalar Mild 00716782 Fluoderm	SYN TAR
441	Fluocinolone Acetonide 0.025% Cr	00030422 Synalar Regular 00716790 Fluoderm	SYN TAR
442	Fluocinonide 0.05% Cr	00036099 Lidex 00716863 Lyderm	SYN TAR
443	Fluocinonide 0.05% Emol Cr	00424943 Lidemol 00598933 Tiamol	SYN TIC
444	Hydrocortisone 0.5% Cr	00228079 Hydrocortisone #00303887 Unicort 00513288 Cortate 00551953 Hydrocortisone	SDR GLA SCH DTC
445	Hydrocortisone 1% Cr	00192597 Emo-Cort 00228087 Hydrocortisone #00303895 Unicort 00502200 Cortate 00551945 Hydrocortisone	TCD SDR GLA SCH DTC
446	Hydrocortisone 0.5% Oint	00093637 Hydrocortisone 00513261 Cortate 00716685 Cortoderm	DTC SCH TAR
447	Hydrocortisone 1% Oint	00093645 Hydrocortisone 00502197 Cortate 00716693 Cortoderm	DTC SCH TAR
448	Hydrocortisone Acetate 1% Cr	00477699 Corticreme 00716839 Hyderm	ROG TAR
449	Triamcinolone Acetonide 0.025% Cr	00282448 Aristocort D 00716952 Triaderm	LED TAR
450	Triamcinolone Acetonide 0.1% Cr	00014621 Aristocort R 00029114 Kenalog 00716960 Triaderm	LED SQU TAR

Item 84:00 Skin and Mucous Membrane Preparations

84:06:00 Anti-Inflammatory Agents

451	Triamcinolone Acetonide 0.1% Oint	00029572 Kenalog 00127914 Aristocort R	SQU LED
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84:24:00 Emollients, Demulcents and Protectants

452	* Zinc Oxide 15% Oint	00093661 Zinc Oxide 00178969 Zinc Oxide	DTC SDR
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84:28:00 Keratolytic Agents

453	Benzoyl Peroxide 10% Cl Lot	00502669 Benoxyl Wash 00542040 Desquam-X Wash	STI WSD
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454	Benzoyl Peroxide 5% Lot	00236063 Benoxyl 00374326 Oxyderm	STI ICN
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455	Benzoyl Peroxide 10% Lot	00370568 Benoxyl 00432938 Oxyderm	STI ICN
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456	Benzoyl Peroxide 20% Lot	00187585 Benoxyl 00374318 Oxyderm	STI ICN
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457	Benzoyl Peroxide in Acetone-containing Gel 5% Gel	00372692 Dermoxyl 00406821 AcetOxyl	ICN STI
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458	Benzoyl Peroxide in Acetone-containing Gel 10% Gel	00372706 Dermoxyl 00406848 AcetOxyl	ICN STI
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459	Benzoyl Peroxide in Acetone-containing Gel 20% Gel	00399116 Dermoxyl 00406856 AcetOxyl	ICN STI
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460	Benzoyl Peroxide in Alcohol-containing Gel 5% Gel	00263702 Panoxyl 00426261 5-Benzagel	STI ROR
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461	Benzoyl Peroxide in Alcohol-containing Gel 10% Gel	00263699 Panoxyl 00426288 10-Benzagel	STI ROR
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462	Benzoyl Peroxide in Water-based Gel 5% Gel	00307564 Desquam-X5 00512613 H20xyl 00621048 Benzac W 5	WSD STI ALC
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Item 84:00 Skin and Mucous Membrane Preparations

84:28:00 Keratolytic Agents

463	Benzoyl Peroxide in Water-based Gel 10% Gel	00307572 Desquam-X10 00512621 H2Oxyl 00621056 Benzac W10	WSD STI ALC
464	Tretinoin 0.05% Cr	00493333 Vitamin A Acid 00518182 Stieva-A	ROR STI
465	Tretinoin 0.01% Gel	00587958 Stieva-A 00590797 Vitamin A Acid	STI ROR

84:36:00 Miscellaneous Skin and Mucous Membrane Agents

466	* Zinc Sulfate 0.5% Oint	00504246 Anusol 00621447 Anuzinc	PDA TCH
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Item 86:00 Spasmolytics

467	Aminophylline 100mg Tab	00014923 Aminophylline 00092940 Aminophylline	LED DTC
468	Oxtriphylline 10mg/mL O/L	00405310 Rouphylline 00476390 Choledyl	ROG PDA
469	Oxtriphylline 100mg Tab	00441724 Apo-Oxtriphylline 00458708 Novo-Triphyl 00476404 Choledyl	APX NOP PDA
470	Oxtriphylline 200mg Tab	00346071 Rouphylline 00441732 Apo-Oxtriphylline 00458716 Novo-Triphyl 00476412 Choledyl	ROG APX NOP PDA
471	Oxtriphylline 300mg Tab	00483591 Choledyl 00511692 Apo-Oxtriphylline 00565377 Novo-Triphyl	PDA APX NOP
472	Theophylline Anhydrous 5.3mg/mL O/L	00261203 Theophylline 00461709 Theolair Alcohol Free Oral Liquid 00532223 Theophylline 00575151 PMS-Theophylline #00704466 Elixophyllin	DES RIK TCH PMS BER

Item 88:00 Vitamins

88:04:00 Vitamin A

473	Vitamin A 25000IU Cap	00021067 Vitamin A	NOP
		00723460 Aquasol A	ROR
474	Vitamin A 50000IU Cap	00021075 Vitamin A	NOP
		00723452 Aquasol A	ROR

88:08:00 Vitamins B

475	* Cyanocobalamin 1mg/mL Inj Sol	00002909 Anacobin	GLA
		00029165 Rubramin	SQU
		00314277 Cyanocobalamin	NRD
		00716707 Cyanocobalamin	TAR
476	Folic Acid 5mg Tab	00014966 Folvite	LED
		00021466 Novo-Folacid	NOP
		00094617 Folic Acid	DTC
		00284149 Folic Acid-ICN	ICN
		00426849 Apo-Folic	APX
477	Nicotinic Acid 50mg Tab	00498777 Folic Acid	LEA
		00015768 Niacin	LIL
		00268593 Niacin-ICN	ICN
478	Nicotinic Acid 100mg Tab	00274496 Novo-Niacin	NOP
		00015776 Niacin	LIL
479	Pyridoxine HCl 25mg Tab	00268585 Niacin-ICN	ICN
		00015865 Hexa-Betalin	LIL
480	Thiamine HCl 50mg Tab	00232475 Vitamin B6	LEA
		00268607 Vitamin B6-ICN	ICN
		00416185 Vitamin B6	WAM
		00268631 Vitamin B1-ICN	ICN
481	* Ascorbic Acid 100mg Tab	00610267 Vitamin B1	LEA
		00021970 Novo-C	NOP
482	Ascorbic Acid 250mg Tab	00094633 Ascorbic Acid	DTC
		00466646 Apo-C	APX
		00021237 Novo-C	NOP
482	Ascorbic Acid 250mg Tab	00036161 Vitamin C	WAM
		00094641 Ascorbic Acid	DTC
		00466638 Apo-C	APX
		00021237 Novo-C	NOP

88:12:00 Vitamin C

481	* Ascorbic Acid 100mg Tab	00021970 Novo-C	NOP
		00094633 Ascorbic Acid	DTC
		00466646 Apo-C	APX
482	Ascorbic Acid 250mg Tab	00021237 Novo-C	NOP
		00036161 Vitamin C	WAM
		00094641 Ascorbic Acid	DTC
		00466638 Apo-C	APX

Item 88:00 Vitamins

88:12:00 Vitamin C

483	* Ascorbic Acid 500mg Tab	00021997 Novo-C 00036188 Vitamin C 00094668 Ascorbic Acid 00466611 Apo-C	NOP WAM DTC APX
484	Ascorbic Acid 1000mg Tab	00256862 Vitamin C 00466603 Apo-C 00535907 Novo-C	WAM APX NOP

88:16:00 Vitamin D

485	Vitamin D 50000IU Cap	00002690 Radiostol 00009830 Ostoforte	GLA FRS
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88:28:00 Multivitamins

486	* Hexavitamins USP Tab	00269034 Hexavitamins 00701130 Apo-Hexa	NOP APX
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Item 92:00 Unclassified Therapeutic Agents

487	Allopurinol 100mg Tab	00004588	Zyloprim	BWE
		00364282	Novo-Purol	NOP
		00402818	Apo-Allopurinol	APX
		00415731	Purinol	HOR
		00449687	Alloprin	ICN
488	Allopurinol 200mg Tab	00415758	Purinol	HOR
		00479799	Apo-Allopurinol	APX
		00506370	Zyloprim	BWE
		00514209	Alloprin	ICN
		00565342	Novo-Purol	NOP
489	Allopurinol 300mg Tab	00294322	Zyloprim	BWE
		00363693	Novo-Purol	NOP
		00402796	Apo-Allopurinol	APX
		00415766	Purinol	HOR
		00454354	Alloprin	ICN
490	Clomiphene Citrate 50mg Tab	#00018031	Clomid	MER
		00893722	Serophene	SRO
491	Colchicine 0.6mg Tab	00000396	Colchicine	ABB
		00094382	Colchicine	DTC
		00287873	Colchicine	ROG
492	Phenazopyridine HCl 100mg Tab	00271489	Phenazo	ICN
		00476714	Pyridium	PDA
493	Phenazopyridine HCl 200mg Tab	00454583	Phenazo	ICN
		00476722	Pyridium	PDA

O. Reg. 44/91, s. 1.

2. Schedule 2 to the Regulation, as remade by section 2 of Ontario Regulation 322/90, is revoked and the following substituted:

Schedule 2

PART A

10 per cent

PART B

COLUMN 1		COLUMN 2		
Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1	10-Benzagel 10% Gel	ROR	00426288	.1200
2	282 15mg Tab	FRS	00108103	.0802
3	292 30mg Tab	FRS	00219843	.0942
4	5-Benzagel 5% Gel	ROR	00426261	.0963
5	642 65mg Tab	FRS	00010081	.1038
6	ABC0 Sodium Phosphate Enema 160mg & 60mg/mL Rect Sol	MEM	00528463	1.4000
7	AC & C 15mg Tab	DTC	00095508	.0435
8	AC & C 30mg Tab	DTC	00095516	.0630
9	ASA 325mg Tab	WAM	00036145	5.4000
10	ASA 325mg Tab	LEA	00040851	5.8000
11	ASA 325mg Tab	DTC	00092754	5.2000
12	AVC Vag Cr	MER	00134120	.2426
13	AVC Vag Sup	MER	00134139	1.7347
14	AVC/Dienestrol Vag Cr	MER	00134198	.2888
15	Abenol 120mg Sup	BEE	00553328	.5192
16	Abenol 325mg Sup	BEE	00646156	.6592
17	Abenol 650mg Sup	BEE	00553336	.7533
18	Accutane 10mg Cap	HLR	00582344	1.4233
19	Accutane 40mg Cap	HLR	00582352	2.9083
20	Acet-Am 325mg Tab	ORG	00263761	.2185
21	AcetOxyl 5% Gel	STI	00406821	.1127
22	AcetOxyl 10% Gel	STI	00406848	.1335
23	AcetOxyl 20% Gel	STI	00406856	.1740
24	Acetaminophen 325mg Tab	SDR	00361046	.0172
25	Acetaminophen 325mg Tab	WAM	00374148	.0146
26	Acetaminophen 325mg Tab	DPC	00589241	.0120
27	Acetaminophen 500mg Tab	WAM	00567663	.0240
28	Acetaminophen 500mg Tab	SDR	00594814	.0214
29	Acetaminophen Extra Strength 500mg Tab	DPC	00589233	.0157
30	Acetest Tab-100 Pk	AME	00980560	13.7800
31	Achromycin Inj Pd-250mg Pk	LED	00014729	11.6650
32	Achromycin V 250mg Cap	LED	00014605	.0463
33	Acidulin 340mg Cap	LIL	00015210	.1815
34	Acilac 666.7mg/mL O/L	TCH	00690686	.0285
35	Adalat 5mg Cap	MIT	00613258	.3664
36	Adalat 10mg Cap	MIT	00557633	.4855
37	Adalat FT 10mg Tab	MIT	00852082	.3360
38	Adalat Pa 10 10mg LA Tab	MIT	00692727	.4493
39	Adalat Pa 20 20mg LA Tab	MIT	00692735	.6975
40	Adrenalin 30mg/30mL Inj Sol-30mL Pk	PDA	00155357	9.4500
41	Aerosporin Inj Pd-500000UPk	BWE	00004421	26.7600
42	Ak-Dex 0.1% Oph/Ot Sol	AKN	00627763	1.1500
43	Ak-Tate 1% Oph Susp	AKN	00622931	.8150
44	Albalon 0.1% Oph Sol	ALL	00001147	8.9000
45	Alcomycin 0.3% Oph Sol	ALC	00436771	.6800
46	Aldactazide-25 25mg & 25mg Tab	SEA	00180408	.1065
47	Aldactazide-50 50mg & 50mg Tab	SEA	00594377	.2751
48	Aldactone 25mg Tab	SEA	00028606	.0857
49	Aldactone 100mg Tab	SEA	00285455	.2625
50	Aldomet 125mg Tab	MSD	00016551	.0898
51	Aldomet 250mg Tab	MSD	00016578	.1558
52	Aldomet 500mg Tab	MSD	00016586	.2585
53	Aldoril-15 250mg & 15mg Tab	MSD	00140589	.2303
54	Aldoril-25 250mg & 25mg Tab	MSD	00140597	.2516
55	Alkeran 2mg Tab	BWE	00004715	1.2700
56	Allerdryl 25mg Cap	ICN	00370517	.0814
57	Allerdryl 50mg Cap	ICN	00271411	.1076
58	Alloprin 100mg Tab	ICN	00449687	.0186

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
59	Alloprin 200mg Tab	ICN	00514209	.0369
60	Alloprin 300mg Tab	ICN	00454354	.0456
61	Alpha-Baclofen 10mg Tab	GEN	00808520	.2970
62	Alpha-Baclofen 20mg Tab	GEN	00849456	.5800
63	Alpha-Glibenclamide 2.5mg Tab	GEN	00808733	.0906
64	Alpha-Glibenclamide 5mg Tab	GEN	00808741	.1641
65	Alpha-Tamoxifen 10mg Tab	GEN	00839361	.5420
66	Alpha-Tamoxifen 20mg Tab	GEN	00839353	.9924
67	Alprazolam 0.25mg Tab	KNR	00677485	.1543
68	Alprazolam 0.5mg Tab	KNR	00677477	.1849
69	Alu-Tab 600mg Tab	RIK	00313297	.1160
70	Alupent Inh Pd-300 dose Pk	BOE	00254134	12.2900
71	Alupent 5% Inh Sol-10mL Pk	BOE	00003859	8.8600
72	Alupent 2mg/mL O/L	BOE	00249920	.0579
73	Alupent 20mg Tab	BOE	00003891	.2254
74	Aminophylline 100mg Tab	LED	00014923	.0273
75	Aminophylline 100mg Tab	DTC	00092940	.0308
76	Aminophylline 200mg Tab	LED	00014931	.0767
77	Amitriptyline 10mg Tab	DTC	00377872	.0062
78	Amitriptyline 25mg Tab	DTC	00377880	.0083
79	Amitriptyline 50mg Tab	DTC	00377899	.0178
80	Amoxil 250mg Cap	AYE	00288497	.1896
81	Amoxil 500mg Cap	AYE	00330531	.3793
82	Amoxil 25mg/mL O/L	AYE	00288500	.0456
83	Amoxil 50mg/mL O/L	AYE	00288519	.0693
84	Amoxil 50mg/mL Ped O/L	AYE	00353035	.6044
85	Amphojel 60mg/mL O/L	WYE	00034002	.0107
86	Amphojel 600mg Tab	WYE	00208965	.0888
87	Amphojel 500 100mg & 100mg/mL O/L	WYE	00515655	.0152
88	Ampicin Inj Pd- 500mg Pk	BRI	00004057	1.8000
89	Ampicin Inj Pd-1000mg Pk	BRI	00004065	2.5000
90	Amytal 30mg Tab	LIL	00015628	.0799
91	Amytal 100mg Tab	LIL	00015636	.1356
92	Amytal Sodium 60mg Cap	LIL	00015148	.0941
93	Amytal Sodium 200mg Cap	LIL	00015156	.2073
94	Anacobin 1mg/mL Inj Sol	GLA	00002909	10.7000
95	Anafranil 10mg Tab	GEI	00330566	.2476
96	Anafranil 25mg Tab	GEI	00324019	.3374
97	Anafranil 50mg Tab	GEI	00402591	.6211
98	Anapolon-50 50mg Tab	SYN	00189421	1.5762
99	Ancef Inj Pd- 500mg Pk	SKF	00319139	3.5300
100	Ancef Inj Pd-1000mg Pk	SKF	00319112	6.8600
101	Ancotil 500mg Cap	HLR	00384895	1.1135
102	Androcur 50mg Tab	BER	00704431	2.1466
103	Ansaid 50mg Tab	UPJ	00647942	.4363
104	Ansaid 100mg Tab	UPJ	00600792	.5970
105	Antabuse 250mg Tab	AYE	00002534	.2907
106	Antabuse 500mg Tab	AYE	00002542	.5527
107	Anthraforte 1 1% Oint	STI	00566756	.2968
108	Anthraforte 2 2% Oint	STI	00566748	.3132
109	Anthraforte 3 3% Oint	STI	00617164	.3272
110	Anthranol 0.1% Cr	STI	00537594	.2180
111	Anthranol 0.2% Cr	STI	00537608	.2300
112	Anthranol 0.4% Cr	STI	00537616	.2404
113	Anturan 100mg Tab	GEI	00010510	.2234
114	Anturan 200mg Tab	GEI	00010529	.3028
115	Anusol 0.5% Oint	PDA	00504246	.0862
116	Anuzinc 0.5% Oint	TCH	00621447	.0754
117	Anuzinc 10mg Sup	TCH	00621439	.1630
118	Aparkane 2mg Tab	ICN	00280445	.0088
119	Aparkane 5mg Tab	ICN	00271314	.0087

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
120	Apo-Acetaminophen 325mg Tab	APX	00544981	.0121
121	Apo-Acetaminophen 500mg Tab	APX	00545007	.0158
122	Apo-Acetazolamide 250mg Tab	APX	00545015	.0281
123	Apo-Allopurinol 100mg Tab	APX	00402818	.0187
124	Apo-Allopurinol 200mg Tab	APX	00479799	.0369
125	Apo-Allopurinol 300mg Tab	APX	00402796	.0454
126	Apo-Alpraz 0.25mg Tab	APX	00865397	.1162
127	Apo-Alpraz 0.5mg Tab	APX	00865400	.1390
128	Apo-Amilzide 5mg & 50mg Tab	APX	00784400	.2461
129	Apo-Amitriptyline 10mg Tab	APX	00335053	.0068
130	Apo-Amitriptyline 25mg Tab	APX	00335061	.0090
131	Apo-Amitriptyline 50mg Tab	APX	00335088	.0194
132	Apo-Amoxi 250mg Cap	APX	00628115	.1087
133	Apo-Amoxi 500mg Cap	APX	00628123	.2116
134	Apo-Amoxi 25mg/mL O/L	APX	00628131	.0220
135	Apo-Amoxi 50mg/mL O/L	APX	00628158	.0325
136	Apo-Ampi 250mg Cap	APX	00603279	.0862
137	Apo-Ampi 500mg Cap	APX	00603295	.1672
138	Apo-Ampi 25mg/mL O/L	APX	00603260	.0175
139	Apo-Ampi 50mg/mL O/L	APX	00603287	.0270
140	Apo-Atenol 50mg Tab	APX	00773689	.4435
141	Apo-Atenol 100mg Tab	APX	00773697	.7300
142	Apo-Benzotropine 2mg Tab	APX	00426857	.0101
143	Apo-Bisacodyl 5mg Ent Tab	APX	00545023	2.2000
144	Apo-C 100mg Tab	APX	00466646	1.7000
145	Apo-C 250mg Tab	APX	00466638	2.7000
146	Apo-C 500mg Tab	APX	00466611	4.2000
147	Apo-C 1000mg Tab	APX	00466603	9.1000
148	Apo-Cal 250 Eq to 250mg Elemental Calcium Tab	APX	00682047	.0177
149	Apo-Cal 500 Eq to 500mg Elemental Calcium Tab	APX	00682039	.0227
150	Apo-Capto 12.5mg Tab	APX	00893595	.2790
151	Apo-Capto 25mg Tab	APX	00893609	.3746
152	Apo-Capto 50mg Tab	APX	00893617	.6979
153	Apo-Capto 100mg Tab	APX	00893625	1.2980
154	Apo-Carbamazepine 200mg Tab	APX	00402699	.0921
155	Apo-Cephalex 250mg Tab	APX	00768723	.1817
156	Apo-Cephalex 500mg Tab	APX	00768715	.3576
157	Apo-Chlordiazepoxide 5mg Cap	APX	00522724	.0136
158	Apo-Chlordiazepoxide 10mg Cap	APX	00522988	.0162
159	Apo-Chlordiazepoxide 25mg Cap	APX	00522996	.0213
160	Apo-Chlorpropamide 100mg Tab	APX	00399302	.0457
161	Apo-Chlorpropamide 250mg Tab	APX	00312711	.0439
162	Apo-Chlorthalidone 50mg Tab	APX	00360279	.0254
163	Apo-Chlorthalidone 100mg Tab	APX	00360287	.0418
164	Apo-Cimetidine 200mg Tab	APX	00584215	.0858
165	Apo-Cimetidine 300mg Tab	APX	00487872	.1006
166	Apo-Cimetidine 400mg Tab	APX	00600059	.1582
167	Apo-Cimetidine 600mg Tab	APX	00600067	.2013
168	Apo-Cimetidine 800mg Tab	APX	00749494	.2945
169	Apo-Clonidine 0.1mg Tab	APX	00868949	.1860
170	Apo-Clonidine 0.2mg Tab	APX	00868957	.3318
171	Apo-Clorazepate 3.75mg Cap	APX	00860689	.0732
172	Apo-Clorazepate 7.5mg Cap	APX	00860700	.1613
173	Apo-Clorazepate 15mg Cap	APX	00860697	.2755
174	Apo-Cloxi 250mg Cap	APX	00618292	.1045
175	Apo-Cloxi 500mg Cap	APX	00618284	.2048
176	Apo-Cloxi 25mg/mL O/L	APX	00644633	.0250
177	Apo-Diazepam 2mg Tab	APX	00405329	.0059
178	Apo-Diazepam 5mg Tab	APX	00362158	.0065
179	Apo-Diazepam 10mg Tab	APX	00405337	.0076
180	Apo-Diclo 25mg Ent Tab	APX	00839175	.2138

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
181	Apo-Diclo 50mg Ent Tab	APX	00839183	.4275
182	Apo-Diltiaz 30mg Tab	APX	00771376	.2725
183	Apo-Diltiaz 60mg Tab	APX	00771384	.4782
184	Apo-Dimenhydrinate 50mg Tab	APX	00363766	.0088
185	Apo-Erythro 250mg Tab	APX	00682020	.0556
186	Apo-Erythro E-C 250mg Ent Pel Cap	APX	00726672	.2704
187	Apo-Erythro-ES 600mg Tab	APX	00637416	.4150
188	Apo-Erythro-S 250mg Tab	APX	00545678	.0913
189	Apo-Erythro-S 500mg Tab	APX	00688568	.5340
190	Apo-Ferrous Gluconate 300mg Tab	APX	00545031	2.7000
191	Apo-Fluphenazine 1mg Tab	APX	00405345	.0885
192	Apo-Fluphenazine 2mg Tab	APX	00410632	.1061
193	Apo-Fluphenazine 5mg Tab	APX	00405361	.1593
194	Apo-Flurazepam 15mg Cap	APX	00521698	.0387
195	Apo-Flurazepam 30mg Cap	APX	00521701	.0441
196	Apo-Folic 5mg Tab	APX	00426849	.0071
197	Apo-Furosemide 20mg Tab	APX	00396788	.0074
198	Apo-Furosemide 40mg Tab	APX	00362166	.0107
199	Apo-Guanethidine 10mg Tab	APX	00396745	.0609
200	Apo-Guanethidine 25mg Tab	APX	00396753	.1164
201	Apo-Haloperidol 2mg/mL O/L	APX	00587702	.1300
202	Apo-Haloperidol 0.5mg Tab	APX	00396796	.0451
203	Apo-Haloperidol 1mg Tab	APX	00396818	.0731
204	Apo-Haloperidol 2mg Tab	APX	00396826	.1318
205	Apo-Haloperidol 5mg Tab	APX	00396834	.1894
206	Apo-Haloperidol 10mg Tab	APX	00463698	.3080
207	Apo-Hexa Tab	APX	00701130	4.1000
208	Apo-Hydro 25 25mg Tab	APX	00326844	.0069
209	Apo-Hydro 50 50mg Tab	APX	00312800	.0078
210	Apo-Hydroxyzine 10mg Cap	APX	00646059	.0349
211	Apo-Hydroxyzine 25mg Cap	APX	00646024	.0568
212	Apo-Hydroxyzine 50mg Cap	APX	00646016	.0791
213	Apo-ISDN 5mg SL Tab	APX	00670944	.0398
214	Apo-ISDN 10mg Tab	APX	00441686	.0188
215	Apo-ISDN 30mg Tab	APX	00441694	.0403
216	Apo-Ibuprofen 200mg Tab	APX	00441643	.0308
217	Apo-Ibuprofen 300mg Tab	APX	00441651	.0370
218	Apo-Ibuprofen 400mg Tab	APX	00506052	.0480
219	Apo-Ibuprofen 600mg Tab	APX	00585114	.0612
220	Apo-Imipramine 10mg Tab	APX	00360201	.0068
221	Apo-Imipramine 25mg Tab	APX	00312797	.0123
222	Apo-Imipramine 50mg Tab	APX	00326852	.0213
223	Apo-Indomethacin 25mg Cap	APX	00611158	.1134
224	Apo-Indomethacin 50mg Cap	APX	00611166	.1964
225	Apo-K 8mEq LA Tab	APX	00602884	.0197
226	Apo-Keto 50mg Cap	APX	00790427	.2005
227	Apo-Lorazepam 0.5mg Tab	APX	00655740	.0492
228	Apo-Lorazepam 1mg Tab	APX	00655759	.0557
229	Apo-Lorazepam 2mg Tab	APX	00655767	.0906
230	Apo-Meprobamate 400mg Tab	APX	00337943	.0207
231	Apo-Methazide-15 250mg & 15mg Tab	APX	00441708	.0714
232	Apo-Methazide-25 250mg & 25mg Tab	APX	00441716	.0738
233	Apo-Methyldopa 125mg Tab	APX	00360252	.0376
234	Apo-Methyldopa 250mg Tab	APX	00360260	.0636
235	Apo-Methyldopa 500mg Tab	APX	00426830	.1215
236	Apo-Metoclop 5mg Tab	APX	00842826	.0558
237	Apo-Metoclop 10mg Tab	APX	00842834	.0586
238	Apo-Metoprolol 50mg Tab	APX	00618632	.1290
239	Apo-Metoprolol 100mg Tab	APX	00618640	.2341
240	Apo-Metoprolol (Type L) 50mg Tab	APX	00749354	.1290
241	Apo-Metoprolol (Type L) 100mg Tab	APX	00751170	.2341

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
242	Apo-Metronidazole 250mg Tab	APX	00545066	.0293
243	Apo-Nadol 40mg Tab	APX	00782505	.3410
244	Apo-Nadol 80mg Tab	APX	00782467	.4621
245	Apo-Nadol 160mg Tab	APX	00782475	.8670
246	Apo-Naproxen 125mg Tab	APX	00522678	.0640
247	Apo-Naproxen 250mg Tab	APX	00522651	.1300
248	Apo-Naproxen 375mg Tab	APX	00600806	.1780
249	Apo-Naproxen 500mg Tab	APX	00592277	.2580
250	Apo-Nifed 5mg Cap	APX	00725110	.2885
251	Apo-Nifed 10mg Cap	APX	00755907	.3573
252	Apo-Nitrofurantoin 50mg Tab	APX	00319511	.0195
253	Apo-Nitrofurantoin 100mg Tab	APX	00312738	.0212
254	Apo-Oxazepam 10mg Tab	APX	00402680	.0105
255	Apo-Oxazepam 15mg Tab	APX	00402745	.0110
256	Apo-Oxazepam 30mg Tab	APX	00402737	.0149
257	Apo-Oxtriphylline 100mg Tab	APX	00441724	.0224
258	Apo-Oxtriphylline 200mg Tab	APX	00441732	.0257
259	Apo-Oxtriphylline 300mg Tab	APX	00511692	.0335
260	Apo-Pen V-K 25mg/mL O/L	APX	00642223	.0260
261	Apo-Pen V-K 60mg/mL O/L	APX	00642231	.0345
262	Apo-Pen V-K 300mg Tab	APX	00642215	.0418
263	Apo-Perphenazine 2mg Tab	APX	00335134	.0165
264	Apo-Perphenazine 4mg Tab	APX	00335126	.0177
265	Apo-Perphenazine 8mg Tab	APX	00335118	.0210
266	Apo-Perphenazine 16mg Tab	APX	00335096	.0304
267	Apo-Phenylbutazone 100mg Tab	APX	00312789	.0144
268	Apo-Pindol 5mg Tab	APX	00755877	.2872
269	Apo-Pindol 10mg Tab	APX	00755885	.4961
270	Apo-Pindol 15mg Tab	APX	00755893	.7280
271	Apo-Piroxicam 10mg Cap	APX	00642886	.4548
272	Apo-Piroxicam 20mg Cap	APX	00642894	.7851
273	Apo-Prazo 1mg Tab	APX	00882801	.1702
274	Apo-Prazo 2mg Tab	APX	00882828	.2308
275	Apo-Prazo 5mg Tab	APX	00882836	.3335
276	Apo-Prednisone 1mg Tab	APX	00598194	.1095
277	Apo-Prednisone 5mg Tab	APX	00312770	.0098
278	Apo-Prednisone 50mg Tab	APX	00550957	.1060
279	Apo-Primidone 125mg Tab	APX	00399310	.0380
280	Apo-Primidone 250mg Tab	APX	00396761	.0609
281	Apo-Procaïnamide 250mg Cap	APX	00713325	.1771
282	Apo-Procaïnamide 375mg Cap	APX	00713333	.2311
283	Apo-Procaïnamide 500mg Cap	APX	00713341	.3073
284	Apo-Propranolol 10mg Tab	APX	00402788	.0203
285	Apo-Propranolol 20mg Tab	APX	00663719	.0384
286	Apo-Propranolol 40mg Tab	APX	00402753	.0366
287	Apo-Propranolol 80mg Tab	APX	00402761	.0616
288	Apo-Propranolol 120mg Tab	APX	00504335	.1175
289	Apo-Quinidine Sulfate 200mg Tab	APX	00441740	.0668
290	Apo-Ranitidine 150mg Tab	APX	00733059	.7160
291	Apo-Ranitidine 300mg Tab	APX	00733067	1.3503
292	Apo-Salvent Inh-200 dose Pk	APX	00790419	6.0000
293	Apo-Sulfamethoxazole 500mg Tab	APX	00421480	.1035
294	Apo-Sulfatrim 40mg & 8mg/mL O/L	APX	00846465	.0240
295	Apo-Sulfatrim 400mg & 80mg Tab	APX	00445274	.0868
296	Apo-Sulfatrim-DS 800mg & 160mg Tab	APX	00445282	.1643
297	Apo-Sulfinpyrazone 100mg Tab	APX	00441759	.0416
298	Apo-Sulfinpyrazone 200mg Tab	APX	00441767	.0694
299	Apo-Sulin 150mg Tab	APX	00778354	.4235
300	Apo-Sulin 200mg Tab	APX	00778362	.5365
301	Apo-Tamox 10mg Tab	APX	00812404	.5500
302	Apo-Tamox 20mg Tab	APX	00812390	1.0000

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
303	Apo-Tetra 250mg Cap	APX	00580929	.0205
304	Apo-Thioridazine 10mg Tab	APX	00360228	.0171
305	Apo-Thioridazine 25mg Tab	APX	00360198	.0320
306	Apo-Thioridazine 50mg Tab	APX	00360236	.0579
307	Apo-Thioridazine 100mg Tab	APX	00360244	.1161
308	Apo-Timol 5mg Tab	APX	00755842	.1768
309	Apo-Timol 10mg Tab	APX	00755850	.2754
310	Apo-Timol 20mg Tab	APX	00755869	.5340
311	Apo-Timop 0.25% Oph Sol	APX	00755826	1.7800
312	Apo-Timop 0.5% Oph Sol	APX	00755834	2.1100
313	Apo-Tolbutamide 500mg Tab	APX	00312762	.0245
314	Apo-Triazide 25mg & 50mg Tab	APX	00441775	.0542
315	Apo-Triazo 0.125mg Tab	APX	00808563	.0763
316	Apo-Triazo 0.25mg Tab	APX	00808571	.0945
317	Apo-Trifluoperazine 1mg Tab	APX	00345539	.0075
318	Apo-Trifluoperazine 2mg Tab	APX	00312754	.0082
319	Apo-Trifluoperazine 5mg Tab	APX	00312746	.0112
320	Apo-Trifluoperazine 10mg Tab	APX	00326836	.0187
321	Apo-Trihex 2mg Tab	APX	00545058	.0105
322	Apo-Trihex 5mg Tab	APX	00545074	.0133
323	Apo-Trimip 12.5mg Tab	APX	00740799	.1012
324	Apo-Trimip 25mg Tab	APX	00740802	.1283
325	Apo-Trimip 50mg Tab	APX	00740810	.2471
326	Apo-Trimip 100mg Tab	APX	00740829	.4494
327	Apo-Verap 80mg Tab	APX	00782483	.3829
328	Apo-Verap 120mg Tab	APX	00782491	.5853
329	Apresoline 20mg/mL Inj Sol-1mL Pk	CIB	00005274	3.8660
330	Apresoline 10mg Tab	CIB	00005525	.1361
331	Apresoline 25mg Tab	CIB	00005533	.2337
332	Apresoline 50mg Tab	CIB	00005541	.3669
333	Aquasol A 25000IU Cap	ROR	00723460	.1070
334	Aquasol A 50000IU Cap	ROR	00723452	.1850
335	Aralen 250mg Tab	WIN	00033642	.3077
336	Aristocort 2mg Tab	LED	00015016	.2747
337	Aristocort 4mg Tab	LED	00015024	.4740
338	Aristocort D 0.025% Cr	LED	00282448	.0770
339	Aristocort D 0.025% Oint	LED	00282456	.0770
340	Aristocort R 0.1% Cr	LED	00014621	.1276
341	Aristocort R 0.1% Oint	LED	00127914	.1276
342	Aristospan 20mg/mL Inj Susp-1mL Pk	LED	00297151	5.8485
343	Artane 0.4mg/mL O/L	LED	00014656	.0269
344	Artane 2mg Tab	LED	00015040	.0380
345	Artane 5mg Tab	LED	00015059	.0689
346	Asacol 400mg Tab	EAT	00752630	.4460
347	Ascorbic Acid 100mg Tab	DTC	00094633	1.6000
348	Ascorbic Acid 250mg Tab	DTC	00094641	2.6000
349	Ascorbic Acid 500mg Tab	DTC	00094668	4.0000
350	Asendin 25mg Tab	LED	00527084	.1895
351	Asendin 50mg Tab	LED	00527092	.2927
352	Asendin 100mg Tab	LED	00527106	.5997
353	Asendin 150mg Tab	LED	00527114	.8487
354	Atabrine 100mg Tab	WIN	00033804	.2280
355	Atarax 10mg Cap	PFI	00024376	.1490
356	Atarax 25mg Cap	PFI	00024384	.2234
357	Atarax 50mg Cap	PFI	00024392	.2754
358	Atarax 500mg/10mL Inj Sol-10mL Pk	PFI	00024589	19.7000
359	Atarax 2mg/mL O/L	PFI	00024694	.0457
360	Atasol 80mg/mL O/L	HOR	00631353	.1646
361	Atasol 325mg Tab	HOR	00293482	.0202
362	Atasol Forte 500mg Tab	HOR	00013668	.0292
363	Atasol-15 15mg Tab	HOR	00293504	.0326

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
364	Atasol-30 30mg Tab	HOR	00293512	.0354
365	Ativan 0.5mg Tab	WYE	00399124	.0570
366	Ativan 1mg Tab	WYE	00348325	.0710
367	Ativan 2mg Tab	WYE	00348333	.1110
368	Atromid-S 500mg Cap	AYE	00002038	.1268
369	Atropine 0.4mg/mL Inj Sol-1mL Pk	GLA	00061697	.4914
370	Atropine 0.6mg/mL Inj Sol-1mL Pk	GLA	00012076	.4914
371	Atropine 1% Oph Oint-3.5g Pk	DIS	00725471	3.8700
372	Atropine 1% Oph Sol	DIS	00725498	.6170
373	Atropine Sulfate 1% Oph Oint-3.5g Pk	ALC	00252484	4.5600
374	Atropisol 1% Oph Sol	IOB	00759929	.7400
375	Atropisol 2% Oph Sol	IOB	00759937	1.0500
376	Atrovent Inh-200 dose Pk	BOE	00576158	15.1200
377	Atrovent 0.25mg/mL Inh Sol-20mL Pk	BOE	00731439	16.8600
378	Aveeno Pd-252g Pk	SCJ	00652350	5.6700
379	Aveeno (Oilated) Pd-126g Pk	SCJ	00652342	5.6700
380	Aventyl 10mg Cap	LIL	00015229	.1918
381	Aventyl 25mg Cap	LIL	00015237	.3876
382	Avlosulfon 100mg Tab	AYE	00002526	.1822
383	Axid 150mg Cap	LIL	00778338	.7462
384	Axid 300mg Cap	LIL	00778346	1.3519
385	Ayercillin 3000000IU/10mL Inj Susp-10mL Pk	AYE	00002402	5.0105
386	Azmecort 200mcg/met dose Aero Inh-240dosePk	ROR	00769983	15.2400
387	Baciguent 500U/g Oint	UPJ	00031046	.1472
388	Baciguent 500U/g Oph Oint-3g Pk	UPJ	00327476	2.0770
389	Bacitracin 500U/g Oint	GLA	00012351	.0919
390	Bactrim 400mg & 80mg Tab	HLR	00272469	.1453
391	Bactrim Sugar Free 40mg & 8mg/mL O/L	HLR	00272485	.0230
392	Bactrim-DS 800mg & 160mg Tab	HLR	00371823	.2606
393	Bactroban 2% Oint	BEE	00648051	.4773
394	Balnetar 2.5% Top Sol	WSD	00208132	11.5000
395	Barriere 20% Cr	GLA	00253057	.0369
396	Beben 0.025% Gel	PDA	00335347	.3657
397	Beclodisk Diskhaler 100mcg/blister Pd Inh-120 dose Pk	GLA	00828521	25.6500
398	Beclodisk Diskhaler 200mcg/blister Pd Inh-120 dose Pk	GLA	00828548	34.9300
399	Becloforte 250mcg/met dose Aero Inh-200dosePk	GLA	00768707	65.7200
400	Beclovent Aero Pd-200 dose Pk	GLA	00334243	10.2900
401	Beclovent Rotacaps 100mcg/Cart Pd Inh	GLA	00545325	.2137
402	Beclovent Rotacaps 200mcg/Cart Pd Inh	GLA	00545333	.2911
403	Beconase Nas Sp-200 dose Pk	GLA	00359688	10.2900
404	Beconase Aqueous 50mcg Nas Sp-200 dose Pk	GLA	00638617	16.8200
405	Beminal Tab	AYE	00750646	9.0500
406	Benadryl 25mg Cap	PDA	00022756	.1098
407	Benadryl 50mg Cap	PDA	00022764	.1512
408	Benadryl 50mg/mL Inj Sol-1mL Pk	PDA	00023205	2.8875
409	Benadryl 2.5mg/mL O/L	PDA	00022918	.0289
410	Benemid 500mg Tab	MSD	00016616	.2133
411	Benoxyl 5% Lot	STI	00236063	.1370
412	Benoxyl 10% Lot	STI	00370568	.1762
413	Benoxyl 20% Lot	STI	00187585	.1946
414	Benoxyl Wash 5% Cl Lot	STI	00503835	.0496
415	Benoxyl Wash 10% Cl Lot	STI	00502669	.0671
416	Bentylol 20mg/2mL Inj Sol-2mL Pk	MER	00133965	4.8325
417	Bentylol 2mg/mL O/L	MER	00018023	.0498
418	Bentylol 20mg Tab	MER	00282529	.1642
419	Benuryl 500mg Tab	ICN	00294926	.1765
420	Benzac W 5 5% Gel	ALC	00621048	.0917
421	Benzac W10 10% Gel	ALC	00621056	.1150
422	Berotec Inh Pd-200 dose Pk	BOE	00371807	12.5700
423	Berotec 0.1% Inh Sol-20mL Pk	BOE	00541389	13.4900
424	Berotec 2.5mg Tab	BOE	00454796	.2213

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
425	Betaderm 0.05% Cr	TAR	00716618	.0155
426	Betaderm 0.1% Cr	TAR	00716626	.0231
427	Betaderm 0.05% Oint	TAR	00716642	.0155
428	Betaderm 0.1% Oint	TAR	00716650	.0244
429	Betaderm 0.1% Scalp Lot	TAR	00716634	.0865
430	Betadine 10% Top Sol	PFR	00158348	.0116
431	Betadine 10% Vag Gel	PFR	00026034	.0733
432	Betadine 10% Vag Sol	PFR	00026093	.0236
433	Betadine 200mg Vag Sup	PFR	00026050	.5421
434	Betagan 0.5% Oph Sol	ALL	00637661	2.3280
435	Betaloc 50mg Tab	AST	00402605	.2191
436	Betaloc 100mg Tab	AST	00402540	.3722
437	Betaloc Durules 200mg LA Tab	AST	00497827	.6453
438	Betamethasone Valerate 0.1% Scalp Lot	PHO	00726486	.0867
439	Betaxin 1000mg/10mL Inj Sol-10mL Pk	WIN	00033421	13.2300
440	Betnesol 5mg/100mL Enema-100mL Pk	GLA	00012181	7.6386
441	Betnovate 0.1% Cr	GLA	00011924	.0244
442	Betnovate 0.1% Lot	GLA	00011940	.3743
443	Betnovate 0.1% Oint	GLA	00012386	.0244
444	Betnovate-1/2 0.05% Cr	GLA	00011916	.0155
445	Betnovate-1/2 0.05% Lot	GLA	00011932	.2955
446	Betnovate-1/2 0.05% Oint	GLA	00012378	.0155
447	Betoptic 0.5% Oph Sol	ALC	00695688	2.1560
448	BiCNU Inj Pd-100mg Pk	BRI	00297763	46.0500
449	Bicillin 1200 L-A 1200000IU/2mL Inj Sol-2mL Pk	WYE	00036315	6.1000
450	Biquin Durules 250mg Tab	AST	00249580	.3741
451	Bisacodyl 5mg Sup	TCH	00619485	3.9000
452	Bisacodyl 10mg Sup	TCH	00404802	2.8000
453	Bisacodax 10mg Sup	ICN	00261327	2.9000
454	Blenoxane Inj Pd-15U Pk	BRI	00258482	170.7000
455	Bleph-10 10% Oph Sol	ALL	00001287	.2060
456	Blocadren 5mg Tab	FRS	00353914	.2307
457	Blocadren 10mg Tab	FRS	00353922	.3599
458	Blocadren 20mg Tab	FRS	00495611	.7003
459	Bonamine 25mg Tab	PFI	00220442	.2554
460	Brevicon 0.035mg & 0.5mg Tab-21 Pk	SYN	00373265	9.6700
461	Brevicon 0.035mg & 0.5mg Tab-28 Pk	SYN	00373273	9.6700
462	Brevicon 1/35 0.035mg & 1mg Tab-21 Pk	SYN	00531006	9.6700
463	Brevicon 1/35 0.035mg & 1mg Tab-28 Pk	SYN	00531014	9.6700
464	Bricanyl 2.5mg Tab	AST	00335355	.1490
465	Bricanyl 5mg Tab	AST	00335363	.1965
466	Bricanyl Inhaler Inh-400 dose Pk	AST	00818739	17.6000
467	Bricanyl Spacer Inhaler Inh-400 dose Pk	AST	00444774	17.6000
468	Bricanyl Turbuhaler 0.5mg/dose Inh 200 dose Pk	AST	00786616	14.3000
469	Bronalide 250mcg/Inhalation Aero Pd-100dose Pk	BOE	00790486	15.4400
470	Bronkaid Mistometer Aero Sol-15mL Pk	WIN	00282286	9.4600
471	Buro-Sol 0.35% & 0.023% Pd	TCD	00579947	.6150
472	Buscopan 20mg/mL Inj Sol-1mL Pk	BOE	00363839	3.3470
473	Buscopan 10mg Sup	BOE	00363820	1.3800
474	Buscopan 10mg Tab	BOE	00363812	.1760
475	Butazolidin 100mg Tab	GEI	00010502	.2252
476	Butisol Sodium 15mg Tab	HOR	00581305	.0758
477	Butisol Sodium 30mg Tab	HOR	00581291	.1010
478	Butisol Sodium 100mg Tab	HOR	00581313	.1817
479	C.E.S. 0.625mg Tab	ICN	00265470	.0725
480	C.E.S. 1.25mg Tab	ICN	00265489	.1211
481	Cafergot 1mg & 100mg Tab	SAN	00176095	.5335
482	Cafergot-PB Sup	SAN	00176214	2.1750
483	Cafergot-PB Tab	SAN	00176222	.6200
484	Calcilean 25000IU/mL Inj Sol-0.8mL Pk	OTK	00740527	6.4750
485	Calcimar 400IU/2mL Inj Sol-2mL Pk	ROR	00723428	40.8500

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
486	Calcium Eq to 500mg Elemental Calcium Tab	SDR	00640360	.0217
487	Calcium Disodium Versenate 1000mg/5mL Inj Sol-5mL Pk	RIK	00026239	18.0083
488	Calcium Gluconate Eq to 60mg Elemental Calcium Tab	DTC	00094773	3.5000
489	Calcium Gluconate Eq to 60mg Elemental Calcium Tab	SDR	00179698	3.5000
490	Calcium Gluconate Eq to 60mg Elemental Calcium Tab	WAM	00241717	3.7000
491	Calcium Gluconate Eq to 60mg Elemental Calcium Tab	NOP	00441473	3.7000
492	Calcium Lactate Eq to 84mg Elemental Calcium Tab	NOP	00021253	3.8000
493	Calcium Lactate Eq to 84mg Elemental Calcium Tab	PDA	00023590	8.9000
494	Calcium Lactate Eq to 84mg Elemental Calcium Tab	SDR	00179671	3.6000
495	Calcium-250 Eq to 250mg Elemental Calcium Tab	NOP	00645958	.0178
496	Calcium-500 Eq to 500mg Elemental Calcium Tab	NOP	00645923	.0228
497	Calcium-Rougier Eq to 19mg Elemental Calcium/mL O/L	ROG	00466425	.0165
498	Calcium-Sandoz Eq to 9mg Elemental Calcium/mL Inj Sol-10mL Pk	SAN	00027219	1.9800
499	Calcium-Sandoz Eq to 22mg Elemental Calcium/mL O/L	SAN	00027383	.0241
500	Calcium-Sandoz Forte Eq to 500mg Elemental Calcium Eff Tab	SAN	00027588	.3537
501	Calmurid-HC 1% & 10% Cr	PHD	00364134	.3135
502	Calsan Eq to 500mg Elemental Calcium Chew Tab	SAN	00648345	.1155
503	Calsan Eq to 500mg Elemental Calcium SG Cap	SAN	00648353	.1155
504	Caltrate 600 Eq to 600mg Elemental Calcium Tab	LED	00626341	.1162
505	Camphor Co. Tincture O/L	DTC	00095680	.0228
506	Canesten 10mg/g Cr	MIT	00513903	.1703
507	Canesten 10mg/mL Top Sol	MIT	00513911	.3610
508	Canesten 10mg/g Vag Cr-App	MIT	00513938	.2524
509	Canesten 100mg Vag Tab	MIT	00513946	2.1033
510	Canesten 1 500mg Vag Tab	MIT	00629243	13.8800
511	Canesten 1-Combi Pak 500mg & 1% Tab & Cr	MIT	00759457	13.8800
512	Canesten 3 20mg/g Vag Cr-App	MIT	00576492	.5636
513	Canesten 3 200mg Vag Tab	MIT	00567388	4.6967
514	Capoten 12.5mg Tab	SQU	00695661	.3720
515	Capoten 25mg Tab	SQU	00546283	.4995
516	Capoten 50mg Tab	SQU	00546291	.9305
517	Capoten 100mg Tab	SQU	00546305	1.7310
518	Carbachol 0.25mg/mL Inj Sol-1mL Pk	GLA	00341622	3.7080
519	Carbachol 2mg Tab	GLA	00003212	.3583
520	Carbolith 150mg Cap	ICN	00461733	.0826
521	Carbolith 300mg Cap	ICN	00236683	.0830
522	Cardioquin 275mg Tab	PFR	00026131	.4600
523	Cardizem 30mg Tab	NRD	00587753	.3581
524	Cardizem 60mg Tab	NRD	00587761	.6282
525	Cardizem-SR 60mg LA Cap	NRD	00728314	.6625
526	Cardizem-SR 90mg LA Cap	NRD	00728322	.8705
527	Cardizem-SR 120mg LA Cap	NRD	00728330	1.1550
528	Castor Oil O/L	DTC	00094080	1.9000
529	Castor Oil O/L	SDR	00179140	1.8000
530	Catapres 0.1mg Tab	BOE	00259527	.2606
531	Catapres 0.2mg Tab	BOE	00291889	.4650
532	Ceclor 250mg Cap	LIL	00465186	.9693
533	Ceclor 500mg Cap	LIL	00465194	1.9029
534	Ceclor 25mg/mL O/L	LIL	00465208	.1030
535	Ceclor 50mg/mL O/L	LIL	00465216	.1884
536	Cedocard SR 20mg LA Tab	PMS	00740721	.3150
537	CeeNU 10mg Cap	BRI	00360430	3.8675
538	CeeNU 40mg Cap	BRI	00360422	6.6900
539	CeeNU 100mg Cap	BRI	00360414	11.0450
540	Celestoderm-V 0.1% Cr	SCH	00027901	.0244
541	Celestoderm-V 0.1% Oint	SCH	00028363	.0244
542	Celestoderm-V/2 0.05% Cr	SCH	00027898	.0155
543	Celestoderm-V/2 0.05% Oint	SCH	00028355	.0155
544	Celestone 0.5mg Tab	SCH	00028185	.3620

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
545	Celestone Soluspan 3mg & 3mg/mL Inj Susp-1mL Pk	SCH	00028096	4.4751
546	Celontin 300mg Cap	PDA	00022802	.2926
547	Cephulac 666.7mg/mL O/L	MER	00444316	.0383
548	Ceporex 250mg Cap	GLA	00253154	.3454
549	Ceporex 500mg Cap	GLA	00253146	.6886
550	Cerevon 100mg Tab	BWE	00677981	6.7500
551	Cerubidine Inj Pd-20mg Pk	RPP	00163899	78.5500
552	Cesamet 1mg Cap	LIL	00548375	6.0835
553	Cetamide 10% Oph Oint-3.5g Pk	ALC	00252522	3.1800
554	Chemstrip K Strip-100 Pk	BOM	00990698	10.6000
555	Chemstrip bG Strip- 25 Pk	BOM	00990906	16.4000
556	Chemstrip bG Strip- 50 Pk	BOM	00990027	34.2000
557	Chemstrip uG 5000 Strip-50 Pk	BOM	00990019	5.9000
558	Chemstrip uG 5000 K Strip-50 Pk	BOM	00980692	6.1000
559	Chlor-Tripolon 10mg/mL Inj Sol-1mL Pk	SCH	00027995	2.4020
560	Chlor-Tripolon 0.5mg/mL O/L	SCH	00028134	.0351
561	Chloral Hydrate 500mg Cap	DTC	00092886	.0333
562	Chlordiazepoxide 5mg Cap	DTC	00398403	.0130
563	Chlordiazepoxide 10mg Cap	DTC	00398411	.0155
564	Chlordiazepoxide 25mg Cap	DTC	00398438	.0203
565	Chloromycetin 1% Oph Oint-3.5g Pk	PDA	00024066	3.3800
566	Chloromycetin 0.5% Oph Sol	PDA	00221678	.4067
567	Chloromycetin 0.5% Ot Sol	PDA	00349615	.6213
568	Chloroptic 0.5% Oph Sol	ALL	00001082	.3850
569	Chlorpromanyl 20 20mg/mL O/L	TCH	00580988	.0339
570	Chlorpropamide 250mg Tab	DTC	00377937	.0420
571	Chlorthalidone 50mg Tab	DTC	00398365	.0243
572	Chlorthalidone 100mg Tab	DTC	00398373	.0399
573	Choledyl 10mg/mL O/L	PDA	00476390	.0241
574	Choledyl 20mg/mL O/L	PDA	00476366	.0279
575	Choledyl 100mg Tab	PDA	00476404	.0470
576	Choledyl 200mg Tab	PDA	00476412	.0405
577	Choledyl 300mg Tab	PDA	00483591	.1100
578	Choledyl SA 400mg LA Tab	PDA	00503436	.2169
579	Choledyl SA 600mg LA Tab	PDA	00536709	.2575
580	Choloxin 2mg Tab	FLI	00273015	.7155
581	Choloxin 4mg Tab	FLI	00009636	.8295
582	Cidomycin 80mg/2mL Inj Sol-2mL Pk	ROU	00259179	4.0900
583	Cipro 250mg Tab	MIT	00817163	2.0963
584	Cipro 500mg Tab	MIT	00817171	2.3650
585	Cipro 750mg Tab	MIT	00817198	4.4613
586	Claripex 500mg Cap	ICN	00409472	.0497
587	Claritin 10mg Tab	SCH	00782696	.7410
588	Clavulin 25mg & 6.25mg/mL O/L	BEE	00617512	.1014
589	Clavulin 50mg & 12.5mg/mL O/L	BEE	00617520	.1704
590	Clavulin 250mg & 125mg Tab	BEE	00617490	.8560
591	Clavulin 500mg & 125mg Tab	BEE	00617504	1.3332
592	Clinistix Strip-50 Pk	AME	00980633	4.5000
593	Clinitest Tab-100 Pk	AME	00980420	7.9500
594	Clinoril 150mg Tab	FRS	00456888	.5369
595	Clinoril 200mg Tab	FRS	00432369	.6803
596	Clomid 50mg Tab	MER	00018031	4.3644
597	Clotrimaderm 10mg/g Cr	TAR	00812382	.1300
598	Clotrimaderm Vaginal Cream 10mg/g Vag Cr-App	TAR	00812366	.2100
599	Clotrimaderm Vaginal Cream 20mg/g Vag Cr-App	TAR	00812374	.4200
600	Codeine 30mg/mL Inj Sol-1mL Pk	GLA	00303879	.5716
601	Codeine 5mg/mL O/L	DTC	00093114	.0189
602	Codeine 5mg/mL O/L	NDA	00779474	.0188
603	Codeine 15mg Tab	GLA	00003220	.0719
604	Codeine 15mg Tab	NDA	00018686	.0525
605	Codeine 15mg Tab	DTC	00093122	.0534

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
606	Codeine 30mg Tab	GLA	00003239	.1101
607	Codeine 30mg Tab	NDA	00018694	.0760
608	Codeine 30mg Tab	DTC	00093130	.0767
609	Codeine 60mg Tab	GLA	00003247	.2140
610	Codeine 60mg Tab	DTC	00093149	.1950
611	Codeine Phosphate 5mg/mL O/L	SDR	00470651	.0193
612	Codeine Phosphate 15mg Tab	TCH	00593435	.0521
613	Codeine Phosphate 30mg Tab	TCH	00593451	.0743
614	Cogentin 2mg/2mL Inj Sol-2mL Pk	MSD	00016128	4.4667
615	Cogentin 2mg Tab	MSD	00016357	.1293
616	Colace 100mg Cap	BRI	00464767	23.1000
617	Colace 4mg/mL O/L	BRI	00464783	13.0000
618	Colace 10mg/mL O/L	BRI	00464775	9.5000
619	Colchicine 0.6mg Tab	ABB	00000396	.2728
620	Colchicine 0.6mg Tab	DTC	00094382	.0537
621	Colchicine 0.6mg Tab	ROG	00287873	.0525
622	Colchicine 1mg Tab	ROG	00206032	.2010
623	Colestid Gran 5g Pk	UPJ	00642975	.7866
624	Coly-Mycin Inj Pd-150mg Pk	PDA	00476420	31.8000
625	Coly-Mycin Otic 3mg & 3.3mg & 10mg/mL Ot Susp	PDA	00476439	1.6737
626	Colyte Pd 4L Pk	RCA	00677442	14.0500
627	Coptin 9mg/mL & 41mg/mL Oral Susp	JOU	00745618	.1370
628	Coptin 90mg & 410mg Tab	JOU	00656933	.4750
629	Coradur-SR 20mg LA Tab	GLA	00786683	.3150
630	Cordarone 200mg Tab	AYE	00705934	1.9187
631	Corgard 40mg Tab	SQU	00607126	.4305
632	Corgard 80mg Tab	SQU	00463256	.6135
633	Corgard 160mg Tab	SQU	00523372	1.1500
634	Coronex 5mg SL Tab	AYE	00446661	.0710
635	Coronex 10mg Tab	AYE	00446688	.0523
636	Coronex 30mg Tab	AYE	00446696	.1235
637	Corophyllin 500mg Sup	BEE	00451673	.5875
638	Cortate 0.5% Cr	SCH	00513288	.0183
639	Cortate 1% Cr	SCH	00502200	.0207
640	Cortate 0.5% Oint	SCH	00513261	.0183
641	Cortate 1% Oint	SCH	00502197	.0207
642	Cortef 20mg Tab	UPJ	00030929	.2350
643	Cortenema 100mg/60mL Enema-60mL Pk	INF	00661856	5.4900
644	Corticreme 1% Cr	ROG	00477699	.2850
645	Cortifoam 10% Rect Aero	RCA	00579335	3.2030
646	Cortiment 10mg Sup	NRD	00407836	.9025
647	Cortiment 40mg Sup	NRD	00406708	1.2380
648	Cortisone .25mg Tab	UPJ	00249963	.1295
649	Cortisone-ICN 25mg Tab	ICN	00280437	.1283
650	Cortisporin 10000U & 5mg & 10mg/mL Ot Sol	BWE	00694401	1.3280
651	Cortoderm 0.5% Oint	TAR	00716685	.0162
652	Cortoderm 1% Oint	TAR	00716693	.0187
653	Cortone 5mg Tab	MSD	00016438	.1102
654	Cortone 25mg Tab	MSD	00016446	.4118
655	Cortrosyn Inj Pd-0.25mg Pk	ORG	00022381	9.1700
656	Coryphen 325-30 325mg & 30mg Tab	ROG	00406112	.2230
657	Coryphen 650-30 650mg & 30mg Tab	ROG	00406104	.3200
658	Cosmegen Inj Pd-0.5mg Pk	MSD	00213071	7.9600
659	Cotazym 8000 & 30000 & 30000USP U Cap	ORG	00263818	.1705
660	Cotazym ECS 8000 & 30000 & 30000USP U Ent Microsph Cap	ORG	00502790	.3079
661	Coumadin 2.5mg Tab	DUP	00585645	.2150
662	Coumadin 5mg Tab	DUP	00585629	.2257
663	Coumadin 10mg Tab	DUP	00585637	.4131
664	Crystapen (Sod) Inj Pd- 1000000IU Pk	GLA	00011983	1.3108
665	Crystapen (Sod) Inj Pd- 5000000IU Pk	GLA	00011991	3.3756
666	Cuprimine 125mg Cap	MSD	00497894	.4802

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
667	Cuprimine 250mg Cap	MSD	00016055	.7199
668	Cyanocobalamin 1mg/mL Inj Sol	NRD	00314277	9.9000
669	Cyanocobalamin 1mg/mL Inj Sol	TAR	00716707	5.9000
670	Cyclocort 0.1% Cr	LED	00443824	.4167
671	Cyclocort 0.1% Lot	LED	00571016	.3182
672	Cyclocort 0.1% Oint	LED	00559237	.3833
673	Cyclomen 50mg Cap	WIN	00491764	.6838
674	Cyclomen 100mg Cap	WIN	00358754	1.0146
675	Cyclomen 200mg Cap	WIN	00358762	1.6212
676	Cylert 37.5mg Tab	ABB	00397512	.6326
677	Cylert 75mg Tab	ABB	00397520	1.2039
678	Cytadren 250mg Tab	CIB	00587729	.9775
679	Cytomel 5mcg Tab	SKF	00027081	.0685
680	Cytomel 25mcg Tab	SKF	00027103	.0832
681	Cytosar Inj Pd- 100mg Pk	UPJ	00386715	9.1100
682	Cytosar Inj Pd- 500mg Pk	UPJ	00194727	40.3000
683	Cytosar Inj Pd-1g Pk	UPJ	00646296	73.5000
684	Cytosar Inj Pd-2g Pk	UPJ	00646318	145.2500
685	Cytotec 100mcg Tab	SEA	00813966	.2410
686	Cytotec 200mcg Tab	SEA	00632600	.4228
687	Cytosan Inj Pd-500mg Pk	BRI	00344915	7.4000
688	Cytosan 25mg Tab	BRI	00344877	.3455
689	Cytosan 50mg Tab	BRI	00344885	.4650
690	D-Vi-Sol 400IU/0.6mL O/L	MJO	00630934	.1562
691	DDAVP 0.1mg/mL Nas Sol-2.5mL Pk	RIC	00402516	46.0000
692	DDAVP 10mcg/met dose Nas Sp- 2.5mL Pk	FEI	00836362	48.0000
693	DTIC Inj Pd-200mg Pk	MIT	00521183	17.7300
694	Dagenan 500mg Tab	RPP	00163929	.3621
695	Dalacin C 15mg/mL O/L	UPJ	00225851	.1060
696	Dalacin C 150mg Cap	UPJ	00030570	.7461
697	Dalacin C 300mg/2mL Inj Sol-2mL Pk	UPJ	00260436	6.2800
698	Dalmane 15mg Cap	HLR	00012696	.1194
699	Dalmane 30mg Cap	HLR	00012718	.1397
700	Dan-Gard 2% Shampoo	STI	00507415	8.7000
701	Dantrium 25mg Cap	EAT	00452513	.3252
702	Dantrium 100mg Cap	EAT	00452521	.6615
703	Darvon-N Cap	LIL	00261432	.2035
704	Decadron 0.1% Oph/Ot Sol	MSD	00016217	1.7640
705	Decadron 0.5mg Tab	MSD	00016462	.2952
706	Decadron 4mg Tab	MSD	00354309	1.1504
707	Decadron 20mg/5mL Inj Sol-5mL Pk	MSD	00213624	16.7200
708	Declinax 10mg Tab	HLR	00255432	.1465
709	Delatestryl 1000mg/5mL Oily Inj Sol-5mL Pk	SQU	00029246	21.2000
710	Delsym 6mg/mL O/L	FIS	00824283	.0336
711	Deltasone 5mg Tab	UPJ	00210188	.0149
712	Deltasone 50mg Tab	UPJ	00252417	.1755
713	Demerol 50mg/mL Inj Sol-1mL Pk	WIN	00036242	.2668
714	Demerol 75mg/mL Inj Sol-1mL Pk	WIN	00033294	.2904
715	Demerol 100mg/mL Inj Sol-1mL Pk	WIN	00033308	.3144
716	Demerol 1500mg/30mL Inj Sol-30mL Pk	WIN	00990493	5.6700
717	Demerol 50mg Tab	WIN	00033685	.1014
718	Demulen 30 0.03mg & 2mg Tab-21 Pk	SEA	00469327	10.8600
719	Demulen 30 0.03mg & 2mg Tab-28 Pk	SEA	00471526	11.6200
720	Demulen 50 0.05mg & 1mg Tab-21 Pk	SEA	00028630	12.1450
721	Demulen 50 0.05mg & 1mg Tab-28 Pk	SEA	00343536	12.9900
722	Depakene 50mg/mL O/L	ABB	00443832	.0814
723	Depakene 250mg Cap	ABB	00443840	.3667
724	Depakene 500mg Ent Cap	ABB	00507989	.7335
725	Depen 250mg Tab	HOR	00511641	.5690
726	Depo-Medrol 40mg/mL Inj Susp-1mL Pk	UPJ	00030759	4.5100
727	Depo-Medrol 80mg/mL Inj Susp-1mL Pk	UPJ	00030767	8.6500

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
728	Depo-Medrol 100mg/5mL Inj Susp-5mL Pk	UPJ	00030740	9.9000
729	Depo-Provera 400mg/4mL Inj Susp-4mL Pk	UPJ	00030856	33.1500
730	Depo-Testosterone 100mg/mL Oily Inj Sol-1mL Pk	UPJ	00030783	4.2500
731	Dermovate 0.05% Cr	GLA	00359718	.6262
732	Dermovate 0.05% Oint	GLA	00359726	.6262
733	Dermovate 0.05% Scalp Lot	GLA	00479012	.5260
734	Dermaxyl 5% Gel	ICN	00372692	.0959
735	Dermaxyl 10% Gel	ICN	00372706	.1396
736	Dermaxyl 20% Gel	ICN	00399116	.1792
737	Deronil 0.5mg Tab	SCH	00501050	.1027
738	Deronil 4mg Tab	SCH	00504416	.5900
739	Desquam-X Wash 10% Cl Lot	WSD	00542040	.0465
740	Desquam-X10 10% Gel	WSD	00307572	.0918
741	Desquam-X5 5% Gel	WSD	00307564	.0712
742	Desyrel 50mg Tab	BRI	00579351	.3265
743	Desyrel 100mg Tab	BRI	00579378	.5830
744	Desyrel Dividose 150mg Tab	BRI	00702277	.9710
745	Dexasone 0.5mg Tab	ICN	00295094	.0930
746	Dexasone 0.75mg Tab	ICN	00285471	.1369
747	Dexasone 4mg Tab	ICN	00489158	.2222
748	Dexedrine 5mg Tab	SKF	00027065	.2453
749	Dextrostix Strip- 25 Pk	AME	00990922	15.5800
750	Dextrostix Strip-100 Pk	AME	00984140	55.8500
751	Diabeta 2.5mg Tab	HOE	00454753	.1117
752	Diabeta 5mg Tab	HOE	00012599	.1997
753	Diabinese 100mg Tab	PFI	00024708	.0907
754	Diabinese 250mg Tab	PFI	00024716	.1833
755	Diamox 500mg LA Cap	LED	00127930	.6824
756	Diamox 250mg Tab	LED	00014907	.1276
757	Diastix Strip-50 Pk	AME	00980641	4.5000
758	Diazepam 2mg Tab	DTC	00466905	.0058
759	Diazepam 5mg Tab	DTC	00396230	.0064
760	Diazepam 10mg Tab	DTC	00466891	.0073
761	Didronel 200mg Tab	EAT	00582522	1.2600
762	Dienestrol 0.1mg/g Vag Cr-App	ORT	00990531	.1091
763	Dienestrol 0.1mg/g Vag Cr	ORT	00441295	.1023
764	Dilantin 6mg/mL O/L	PDA	00023442	.0353
765	Dilantin 30mg Cap	PDA	00022772	.0469
766	Dilantin 25mg/mL O/L	PDA	00023450	.0418
767	Dilantin 100mg Cap	PDA	00022780	.0538
768	Dilantin 50mg Tab	PDA	00023698	.0643
769	Dilantin 100mg/2mL Inj Sol-2mL Pk	PDA	00245453	2.8450
770	Dilantin 250mg/5mL Inj Sol-5mL Pk	PDA	00271705	5.9360
771	Dilaudid 1mg/mL Oral Sol	KNL	00786535	.0931
772	Dilaudid 2mg/mL Inj Sol-1mL Pk	KNL	00627100	1.2000
773	Dilaudid 3mg Sup	KNL	00125105	2.6000
774	Dilaudid 1mg Tab	KNL	00705438	.1370
775	Dilaudid 2mg Tab	KNL	00125083	.2060
776	Dilaudid 4mg Tab	KNL	00125121	.3200
777	Dilaudid 8mg Tab	KNL	00786543	.5040
778	Dilaudid-HP 10mg/mL Inj Sol-1mL Pk	KNL	00622133	3.1800
779	Dimelor 500mg Tab	LIL	00015598	.3935
780	Dimenhydrinate 50mg Tab	DTC	00398381	.0080
781	Dimetane 0.4mg/mL O/L	ROB	00026395	.0178
782	Dimetane 4mg Tab	ROB	00026484	.0749
783	Diodoquin 650mg Tab	SEA	00180386	.3683
784	Diovol Ex 600mg & 300mg Chew Tab	HOR	00621544	.1038
785	Diovol Ex 120mg & 60mg/mL O/L	HOR	00491217	.0148
786	Diprolene 0.05% Oint	SCH	00629367	.6314
787	Diprolene Glycol 0.05% Cr	SCH	00688622	.6314
788	Diprosone 0.05% Cr	SCH	00323071	.4614

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
789	Diprosone 0.05% Lot	SCH	00417246	.3476
790	Diprosone 0.05% Oint	SCH	00344923	.4614
791	Disipal 50mg Tab	RIK	00026387	.3970
792	Ditropan 1mg/mL O/L	EAT	00548332	.0854
793	Ditropan 5mg Tab	EAT	00530921	.3796
794	Doak-Oil 2% Emuls	TCD	00579955	12.0000
795	Doak-Oil Forte 10% Emuls	TCD	00579971	15.9500
796	Docusate Sodium 100mg Cap	TAR	00716731	10.5000
797	Dolobid 250mg Tab	FRS	00587699	.5335
798	Dolobid 500mg Tab	FRS	00576131	.6529
799	Donnagel-PG O/L	ROB	00346756	.0334
800	Dopamet 125mg Tab	ICN	00353620	.0376
801	Dopamet 250mg Tab	ICN	00250392	.0636
802	Dopamet 500mg Tab	ICN	00353639	.1215
803	Drenison 0.05% Cr	LIL	00015326	.4668
804	Drenison 0.05% Oint	LIL	00016012	.4668
805	Drenison-1/4 0.0125% Cr	LIL	00015318	.2322
806	Drenison-1/4 0.0125% Oint	LIL	00016004	.2322
807	Drisdol 10360IU/mL O/L	WIN	00033545	.4372
808	Dulcolax 2mg/mL Enema	BOE	00286265	4.7000
809	Dulcolax 5mg Ent Tab	BOE	00254142	5.6000
810	Dulcolax 5mg Sup	BOE	00003867	4.7000
811	Dulcolax 10mg Sup	BOE	00003875	6.4000
812	Duolube 80% & 20% Oph Oint-3.5g Pk	BAU	00750778	3.8100
813	Durabolin 100mg/2mL Oily Inj Sol-2mL Pk	ORG	00022489	24.2500
814	Durabolin 125mg/5mL Oily Inj Sol-5mL Pk	ORG	00022470	30.0000
815	Duralith 300mg LA Tab	MCN	00590665	.1800
816	Duratears 94% & 3% Oph Oint-3.5g Pk	ALC	00469688	3.8400
817	Duricef 500mg Cap	BRI	00507245	1.1565
818	Duricef 50mg/mL O/L	BRI	00674826	.1983
819	Duricef 1g Tab	BRI	00749346	2.2030
820	Duvoid 10mg Tab	EAT	00452998	.2605
821	Duvoid 25mg Tab	EAT	00453005	.4160
822	Duvoid 50mg Tab	EAT	00453013	.6730
823	Dyazide 25mg & 50mg Tab	SKF	00181528	.0900
824	Dynapen 250mg Cap	BRI	00003964	.3963
825	Dyrenium 50mg Tab	SKF	00299715	.1714
826	Dyrenium 100mg Tab	SKF	00027138	.2217
827	E-Mycin 250mg Tab	UPJ	00030899	.1257
828	E-Pam 2mg Tab	ICN	00272647	.0050
829	E-Pam 10mg Tab	ICN	00272639	.0064
830	E-Pilo 1 1% & 1% Oph Sol	IOB	00760021	1.0200
831	E-Pilo 2 2% & 1% Oph Sol	IOB	00759996	1.0600
832	E-Pilo 4 4% & 1% Oph Sol	IOB	00760013	1.1300
833	E-Pilo 6 6% & 1% Oph Sol	IOB	00760005	1.1700
834	EES-200 40mg/mL O/L	ABB	00000299	.0883
835	EES-400 80mg/mL O/L	ABB	00453617	.1338
836	EES-600 600mg Tab	ABB	00583782	.4200
837	ERYC 250mg Ent Pel Cap	PDA	00607142	.2839
838	Ecostatin 1% Cr	SQU	00561002	.4000
839	Ecostatin 150mg Vag Sup	SQU	00452114	5.3666
840	Ectosone 0.1% Scalp Lot	TCH	00653217	.0867
841	Ectosone Mild 0.05% Cr	TCH	00535427	.0155
842	Ectosone Mild 0.05% Lot	TCH	00653209	.2026
843	Ectosone Regular 0.1% Cr	TCH	00535435	.0238
844	Ectosone Regular 0.1% Lot	TCH	00750050	.2489
845	Edecrin 50mg Tab	MSD	00016497	.2994
846	Efudex 5% Cr	HLR	00330582	.4160
847	Elastase 1U & 666U/g Oint	PDA	00024082	1.2236
848	Elavil 2mg/mL O/L	MSD	00016306	.0379
849	Elavil 10mg Tab	MSD	00016322	.0685

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
850	Elavil 25mg Tab	MSD	00016330	.1250
851	Elavil 50mg Tab	MSD	00016349	.2423
852	Elixophyllin 5.3mg/mL O/L	BER	00704466	.0097
853	Eltroxin 0.05mg Tab	GLA	00012289	.0230
854	Eltroxin 0.1 mg Tab	GLA	00012297	.0283
855	Eltroxin 0.15mg Tab	GLA	00295582	.0314
856	Eltroxin 0.2 mg Tab	GLA	00012300	.0332
857	Eltroxin 0.3 mg Tab	GLA	00012319	.0508
858	Emeyt 140mg Cap	PHD	00780278	2.8140
859	Emex 10mg Tab	BEE	00603775	.0862
860	Emo-Cort 1% Cr	TCD	00192597	.1522
861	Emo-Cort 2.5% Cr	TCD	00595799	.2078
862	Emo-Cort 0.5% Lot	TCD	00192589	.1075
863	Emo-Cort 1% Lot	TCD	00192600	.1367
864	Emo-Cort 2.5% Lot	TCD	00595802	.1858
865	Empracet-30 300mg & 30mg Tab	BWE	00666130	.0580
866	Empracet-60 300mg & 60mg Tab	BWE	00666149	.2940
867	Emtec-30 300mg & 30mg Tab	TCH	00608882	.0472
868	Endocet 5mg & 325mg Tab	END	00574384	.1380
869	Endodan 5mg & 325mg Tab	END	00574392	.1680
870	Entacyl Gran-2g Pk	GLA	00002739	.6690
871	Entacyl 120mg/mL O/L	GLA	00003131	.0534
872	Entrophen 325mg Ent Tab	FRS	00010332	.0223
873	Entrophen 650mg Ent Tab	FRS	00010340	.0273
874	Entrophen 975mg Ent Tab	FRS	00419508	.0758
875	Ephedrine 30mg Tab	GLA	00304069	.2023
876	Epifrin 0.5% Oph Sol	ALL	00001090	.7127
877	Epifrin 1% Oph Sol	ALL	00001104	.8100
878	Epifrin 2% Oph Sol	ALL	00001112	.8353
879	Epival 125mg Ent Tab	ABB	00596418	.2021
880	Epival 250mg Ent Tab	ABB	00596426	.3632
881	Epival 500mg Ent Tab	ABB	00596434	.7265
882	Equanil 400mg Tab	WYE	00034142	.0452
883	Ergamisol 50mg Tab	JAN	00846368	4.5000
884	Ergomar 2mg SL Tab	FIS	00328952	.7033
885	Ergotrate 0.2mg Tab	LIL	00015709	.2474
886	Erythrocin 25mg/mL O/L	ABB	00000302	.0378
887	Erythrocin 50mg/mL O/L	ABB	00273023	.0672
888	Erythrocin 250mg Tab	ABB	00000434	.1140
889	Erythrocin 500mg Tab	ABB	00266515	.5107
890	Erythromid 250mg Tab	ABB	00244635	.0540
891	Erythromycin 250mg Tab	KNR	00640263	.0629
892	Erythromycin Delayed-Release Capsules 250mg Ent Pel Cap	ABB	00846333	.2520
893	Estar 2% Gel	WSD	00373222	10.1000
894	Estinyl 0.02mg Tab	SCH	00028215	.0781
895	Estinyl 0.05mg Tab	SCH	00028223	.1287
896	Estinyl 0.5mg Tab	SCH	00028231	.2801
897	Etibi 100mg Tab	ICN	00247960	.0912
898	Etibi 400mg Tab	ICN	00247979	.2539
899	Euflex 250mg Tab	SCH	00637726	2.0250
900	Euglucon 2.5mg Tab	BOM	00720933	.1133
901	Euglucon 5mg Tab	BOM	00720941	.1933
902	Eumovate 0.05% Cr	GLA	00456543	.3673
903	Eumovate 0.05% Oint	GLA	00456551	.3673
904	Eurax 10% Cr	CGS	00623377	.2672
905	ExacTech Strip- 50 Pk	MED	00984930	33.6500
906	Exdol-15 15mg Tab	FRS	00372331	.0505
907	Exdol-30 30mg Tab	FRS	00372358	.0715
908	FML 0.1% Oph Susp	ALL	00247855	1.9060
909	Feldene 10mg Cap	PFI	00525596	.8493
910	Feldene 20mg Cap	PFI	00525618	1.4240

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
911	Feldene 10mg Sup	PFI	00632708	.9940
912	Feldene 20mg Sup	PFI	00632716	1.6567
913	Fenicol 1% Oph Oint-3.5g Pk	ALC	00001058	2.1600
914	Fer-in-Sol 125mg/mL O/L	MJO	00017841	.1964
915	Ferrous Gluconate 300mg Tab	WAM	00031097	3.5000
916	Ferrous Gluconate 300mg Tab	LEA	00041157	3.2500
917	Ferrous Gluconate 300mg Tab	DTC	00094714	2.6000
918	Fibre Mucilax Oral Pd	SDR	00587559	4.9000
919	Fibyrax Tab	LED	00779768	9.2000
920	Flagyl 10% Vag Cr-App	RPP	00024929	.1978
921	Flagyl 500mg Cap	RPP	00489891	.9533
922	Flagyl 500mg Vag Tab-App	RPP	00025887	.4370
923	Flagyl 250mg Tab	RPP	00025615	.0390
924	Flagystatin 500mg & 100000U/g Vag Cr-App	RPP	00338338	.3893
925	Flagystatin 500mg & 100000U Vag Sup	RPP	00439134	2.1410
926	Flagystatin 500mg & 100000U Vag Tab-App	RPP	00250724	2.1410
927	Flamazine 1% Cr	SNE	00323098	.2290
928	Flarex 0.1% Oph Susp	ALC	00756784	1.6560
929	Fleet Enema	FRS	00107875	5.8000
930	Fleet 160mg & 60mg/mL Ped Rect Sol	FRS	00108065	3.9000
931	Fleet 160mg & 60mg/mL Rect Sol	FRS	00009911	4.2000
932	Flexeril 10mg Tab	FRS	00782742	.5269
933	Florinef 0.1mg Tab	SQU	00029351	.2015
934	Florone 0.05% Cr	UPJ	00481807	.2900
935	Florone 0.05% Oint	UPJ	00481793	.2900
936	Fluanxol 0.5mg Tab	MER	00580619	.2171
937	Fluanxol 3mg Tab	MER	00585157	.4690
938	Fluanxol Depot 200mg/10mL Inj Sol-10mL Pk	MER	00524522	62.8700
939	Fluanxol Depot 200mg/2mL Inj Sol-2mL Pk	MER	00524530	62.8700
940	Fluclox 250mg Cap	AYE	00486795	.5421
941	Fluclox 500mg Cap	AYE	00486809	.9935
942	Fluclox 25mg/mL O/L	AYE	00486817	.1375
943	Fluclox 50mg/mL O/L	AYE	00525561	.2058
944	Fluoderm 0.01% Cr	TAR	00716782	.1191
945	Fluoderm 0.025% Cr	TAR	00716790	.1400
946	Fluoderm 0.01% Oint	TAR	00716804	.1191
947	Fluoderm 0.025% Oint	TAR	00716812	.1400
948	Fluorouracil 500mg/10mL Inj Sol-10mL Pk	HLR	00012882	3.4400
949	Folic Acid 5mg Tab	DTC	00094617	.0071
950	Folic Acid 5mg Tab	LEA	00498777	.0236
951	Folic Acid-ICN 5mg Tab	ICN	00284149	.0063
952	Folvite 5mg Tab	LED	00014966	.0315
953	Formulex 10mg Cap	ICN	00361933	.0580
954	Froben 50mg Tab	ORG	00593346	.3665
955	Froben 100mg Tab	ORG	00593354	.4895
956	Fucidin 2% Cr	LEO	00586668	.5400
957	Fucidin 2% Oint	LEO	00586676	.5400
958	Fulvicin P/G 165mg Tab	SCH	00513229	.2213
959	Fulvicin P/G 330mg Tab	SCH	00513237	.3742
960	Fulvicin U/F 125mg Tab	SCH	00028266	.1429
961	Fulvicin U/F 250mg Tab	SCH	00028274	.2458
962	Fulvicin U/F 500mg Tab	SCH	00028282	.4161
963	Fungizone Inj Pd-50mg Pk	SQU	00029149	34.1500
964	Furosemide 40mg Tab	DTC	00396249	.0102
965	Furoside 40mg Tab	ICN	00332275	.0079
966	GBH 1% Shampoo	ROR	00351105	.0670
967	GEL-OSE 40% Jelly-Unidose Pk	JOU	00739561	.4350
968	Gantanol 500mg Tab	HLR	00013412	.1825
969	Garamycin 0.3% Oph Oint-3.5g Pk	SCH	00028339	7.2300
970	Garamycin 0.3% Oph Sol	SCH	00512192	.6500
971	Garamycin 0.3% Ot Sol	SCH	00512184	1.4173

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
972	Garamycin 80mg/2mL Inj Sol-2mL Pk	SCH	00223824	4.0900
973	Garasone 3mg & 1mg/mL Oph/Ot Drops	SCH	00682217	1.6427
974	Gastrolyte Oral Pd-1 Sach Pk	ROR	00808385	.5730
975	Gastrozepin 50mg Tab	BOE	00608998	.6413
976	Gaviscon 200mg & 80mg Chew Tab	STP	00696021	.0699
977	Gaviscon Liquid 50mg & 20mg/mL O/L	STP	00541168	.0145
978	Gelusil 40mg & 40mg/mL O/L	PDA	00476471	.0117
979	Gelusil 200mg & 200mg Tab	PDA	00476455	.0695
980	Gelusil Extra Strength 130mg & 70mg/mL O/L	PDA	00531154	.0146
981	Gelusil Extra Strength 400mg & 400mg Tab	PDA	00483605	.1020
982	Gemfibrozil 300mg Cap	CIL	00851922	.4235
983	Geopen 500mg Tab	PFI	00328235	1.1280
984	Glucagon Inj Pd-1mg Pk	LIL	00015377	23.4021
985	Glucophage 500mg Tab	NRD	00314552	.1838
986	Glucoscan Strip- 50 Pk	LIF	00980676	33.7500
987	Glucoscan Strip-100 Pk	LIF	00980714	60.7000
988	Glucostix Strip- 25 Pk	AME	00980749	16.7000
989	Glucostix Strip- 50 Pk	AME	00984230	30.4800
990	Glucostix Strip-100 Pk	AME	00980757	59.1600
991	Glucostix (Foil Wrapped) Strip- 50 Pk	AME	00984760	31.5500
992	Glycerin 1.8g Sup	DTC	00094056	2.6500
993	Glycerin 1.8g Sup	ROG	00145416	3.0000
994	Glycerin 2.7g Sup	DTC	00882518	2.5000
995	Glycerin 2.7g Sup	ROG	00990825	3.0000
996	Glysenid 8.6mg Tab	SAN	00604402	11.0000
997	Glysenid 12mg Tab	SAN	00027502	13.3000
998	Gramcal Eq to 1000mg Elemental Calcium Eff Tab	SAN	00259497	.6030
999	Gravol 50mg/5mL Inj Sol-5mL Pk	HOR	00013560	1.1410
1000	Gravol 250mg/5mL Inj Sol-5mL Pk	HOR	00013579	3.1133
1001	Gravol 3mg/mL O/L	HOR	00230197	.0403
1002	Gravol 50mg Sup	HOR	00013595	.2700
1003	Gravol 100mg Sup	HOR	00013609	.2843
1004	Gravol Filmkote 15mg Tab	HOR	00511196	.1390
1005	Gravol Filmkote 50mg Tab	HOR	00013803	.0904
1006	Grisovin FP 125mg Tab	GLA	00012246	.1525
1007	Grisovin FP 250mg Tab	GLA	00012254	.2788
1008	Grisovin FP 500mg Tab	GLA	00012262	.4735
1009	Guaifenesin 20mg/mL O/L	ROG	00026794	.0074
1010	Guaifenesin Sugar Free 20mg/mL O/L	ROG	00990930	.0090
1011	Gynergen 1mg Tab	SAN	00027405	.5350
1012	H2Oxyl 5% Gel	STI	00512613	.1092
1013	H2Oxyl 10% Gel	STI	00512621	.1366
1014	H2Oxyl 20% Gel	STI	00512648	.1740
1015	Halcion 0.125mg Tab	UPJ	00512559	.1498
1016	Halcion 0.25mg Tab	UPJ	00443158	.1853
1017	Haldol 5mg/mL Inj Sol-1mL Pk	MCN	00017574	3.0750
1018	Haldol 2mg/mL O/L	MCN	00017582	.3108
1019	Haldol 0.5mg Tab	MCN	00017655	.1348
1020	Haldol 1mg Tab	MCN	00017663	.2025
1021	Haldol 2mg Tab	MCN	00017671	.3027
1022	Haldol 5mg Tab	MCN	00017698	.4830
1023	Haldol 10mg Tab	MCN	00381772	.7025
1024	Haldol 20mg Tab	MCN	00499579	1.2200
1025	Haldol-LA 50mg/mL Oily Inj Sol-5mL Pk	MCN	00599085	52.0500
1026	Haldol-LA 100mg/mL Oily Inj Sol-1mL Pk	MCN	00599093	20.5703
1027	Haldol-LA 100mg/mL Oily Inj Sol-5mL Pk	MCN	00980803	102.8500
1028	Halog 0.1% Cr	SQU	00326941	.4583
1029	Halog 0.1% Oint	SQU	00403075	.3741
1030	Halog 0.1% Sol	SQU	00404187	.3741
1031	Halog Mild 0.025% Cr	SQU	00404179	.2333
1032	Haloperidol 2mg/mL O/L	KNR	00749400	.1365

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1033	Haloperidol 0.5mg Tab	KNR	00749419	.0474
1034	Haloperidol 1mg Tab	KNR	00749427	.0768
1035	Haloperidol 2mg Tab	KNR	00749435	.1384
1036	Haloperidol 5mg Tab	KNR	00749443	.1989
1037	Haloperidol 10mg Tab	KNR	00749451	.3234
1038	Halotestin 5mg Tab	UPJ	00030902	.1950
1039	Halotex 1% Cr	WSD	00291048	.2150
1040	Halotex 1% Top Sol	WSD	00291021	.2307
1041	Hepalean 10000USP U/10mL Inj Sol-10mL Pk	OTK	00740519	2.5750
1042	Hepalean 50000USP U/5mL Inj Sol-5mL Pk	OTK	00740497	4.5600
1043	Hepalean 25000USP U/mL Inj Sol-2mL Pk	OTK	00740535	10.8000
1044	Heparin 10000USP U/10mL Inj Sol-10mL Pk	GLA	00304042	2.1440
1045	Heparin 50000USP U/5mL Inj Sol-5mL Pk	GLA	00304050	5.3410
1046	Herplex 0.1% Oph Sol	ALL	00001120	.8207
1047	Herplex-D 0.1% Top Sol	ALL	00001317	1.3899
1048	Hexa-Betalin 25mg Tab	LIL	00015865	.1303
1049	Hexavitamins Tab	NOP	00269034	4.1000
1050	Hibitane 4% Top Sol	AYE	00245097	4.7000
1051	Hip-Rex 1g Tab	RIK	00026379	.5680
1052	Hismanal 2mg/mL O/L	JAN	00610070	.2380
1053	Hismanal 10mg Tab	JAN	00610089	.6581
1054	Honvol 250mg/5mL Inj Sol-5mL Pk	HOR	00013587	6.9250
1055	Honvol 100mg Tab	HOR	00013781	.8728
1056	Humulin 30/70 1000U/10mL Inj Susp	LIL	00795879	20.9000
1057	Humulin L Lente 1000U/10mL Inj Susp	LIL	00646148	20.9000
1058	Humulin NPH 1000U/10mL Inj Susp	LIL	00587737	20.9000
1059	Humulin Regular 1000U/10mL Inj Sol	LIL	00586714	20.9000
1060	Humulin-U Ultralente 1000U/10mL Inj Susp	LIL	00733075	20.9000
1061	Hycodan 1mg/mL O/L	DUP	00585580	.0521
1062	Hycodan 5mg Tab	DUP	00585572	.3600
1063	Hycort 100mg/60mL Enema-60mL Pk	ICN	00230316	5.6085
1064	Hyderm 0.5% Cr	TAR	00716820	.0833
1065	Hyderm 1% Cr	TAR	00716839	.0900
1066	HydroDIURIL 25mg Tab	MSD	00016500	.0614
1067	HydroDIURIL 50mg Tab	MSD	00016519	.0850
1068	Hydrochlorothiazide 25mg Tab	DTC	00092681	.0064
1069	Hydrochlorothiazide 50mg Tab	DTC	00092703	.0077
1070	Hydrocortisone 0.5% Cr	SDR	00228079	.0164
1071	Hydrocortisone 0.5% Cr	DTC	00551953	.0144
1072	Hydrocortisone 1% Cr	SDR	00228087	.0197
1073	Hydrocortisone 1% Cr	DTC	00551945	.0197
1074	Hydrocortisone 0.5% Oint	DTC	00093637	.0163
1075	Hydrocortisone 1% Oint	DTC	00093645	.0207
1076	Hygroton 50mg Tab	GEI	00010413	.1254
1077	Hygroton 100mg Tab	GEI	00010421	.1731
1078	Hyperstat 300mg/20mL Inj Sol-20mL Pk	SCH	00269271	60.5600
1079	Hypotears 1% Oph Sol	IOB	00759902	.3400
1080	Hytakerol 0.125mg Cap	WIN	00033057	.8240
1081	Hytrin 1mg Tab	ABB	00818658	.5513
1082	Hytrin 2mg Tab	ABB	00818682	.6356
1083	Hytrin 5mg Tab	ABB	00818666	.8625
1084	IMAP 12mg/6mL Inj Susp-6mL Pk	MCN	00368393	20.8800
1085	IMAP Forte 10mg/mL Inj Susp-1mL Pk	MCN	00542903	16.5700
1086	Ibuprofen 300mg Tab	KNR	00606200	.0518
1087	Ibuprofen 400mg Tab	KNR	00606219	.0672
1088	Ibuprofen 600mg Tab	KNR	00606227	.0857
1089	Idarac 200mg Tab	WIN	01902717	.3482
1090	Idarac 400mg Tab	WIN	01902725	.6064
1091	Iletin II Lente 1000U/10mL Inj Susp	LIL	00514535	26.6000
1092	Iletin II NPH 1000U/10mL Inj Susp	LIL	00514551	26.6000
1093	Iletin II Regular 1000U/10mL Inj Sol	LIL	00513644	26.6000

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1094	Iletin Lente 1000U/10mL Inj Susp	LIL	00446580	15.5000
1095	Iletin NPH 1000U/10mL Inj Susp	LIL	00446572	15.5000
1096	Iletin Protamine Zinc 1000U/10mL Inj Susp	LIL	00446610	15.5000
1097	Iletin Regular 1000U/10mL Inj Sol	LIL	00446564	15.5000
1098	Iletin Semilente 1000U/10mL Inj Susp	LIL	00446602	15.5000
1099	Iletin Ultralente 1000U/10mL Inj Susp	LIL	00446599	15.5000
1100	Ilosone 250mg Cap	LIL	00015202	.1987
1101	Ilosone 25mg/mL O/L	LIL	00015474	.0361
1102	Ilosone 50mg/mL O/L	LIL	00210641	.0699
1103	Ilosone 500mg Tab	LIL	00244384	.8002
1104	Imferon 50mg/mL Inj Sol-2mL Pk	FIS	00009598	2.7940
1105	Imipramine 10mg Tab	DTC	00377902	.0062
1106	Imipramine 25mg Tab	DTC	00377910	.0113
1107	Imipramine 50mg Tab	DTC	00377929	.0196
1108	Imodium 2mg Cap	JAN	00579343	.5345
1109	Imodium 0.2mg/mL O/L	JAN	00610062	.0977
1110	Imuran 50mg Tab	BWE	00004596	.7800
1111	Inderal 10mg Tab	AYE	00002658	.0662
1112	Inderal 40mg Tab	AYE	00002666	.1176
1113	Inderal 80mg Tab	AYE	00313602	.1952
1114	Inderal 120mg Tab	AYE	00456578	.3207
1115	Inderal L.A. 80mg LA Cap	AYE	00566950	.5270
1116	Inderal L.A. 120mg LA Cap	AYE	00587931	.7499
1117	Inderal L.A. 160mg LA Cap	AYE	00511668	.9572
1118	Inderal-20 20mg Tab	AYE	00489859	.1063
1119	Inderide 40 40mg & 25mg Tab	AYE	00465313	.4370
1120	Inderide 80 80mg & 25mg Tab	AYE	00465321	.6768
1121	Indocid 25mg Cap	MSD	00016039	.2977
1122	Indocid 1% Oph Susp	MSD	00594458	4.1800
1123	Indocid 50mg Cap	MSD	00016047	.4840
1124	Indocid 50mg Sup	MSD	00594466	.9950
1125	Indocid 100mg Sup	MSD	00016233	1.3370
1126	Indocid SR 75mg LA Cap	MSD	00463248	1.0070
1127	Inflamase Forte 1% Oph Sol	IOB	00756164	1.8600
1128	Inflamase Mild 0.125% Oph Sol	IOB	00756172	1.4800
1129	Initard 1000U/10mL Inj Susp	HOR	00614416	24.7000
1130	Insulatard 1000U/10mL Inj Susp	HOR	00552275	24.7000
1131	Insulatard Human 100U/mL Inj Susp	HOR	00983810	22.6000
1132	Insulatard Human 1000U/10mL Inj Susp	HOR	00632651	22.6000
1133	Insulin-Toronto 1000U/10mL Inj Sol	NOO	00612227	18.7000
1134	Intal Inh-112 dose Pk	FIS	00990981	23.8600
1135	Intal Inh-200 dose Pk	FIS	00555649	37.5500
1136	Intal 1% Inh Sol-2mL Pk	FIS	00534609	.7360
1137	Intal SpinCaps 20mg/Cart Pd Inh	FIS	00261238	.4417
1138	Intrabutazone 100mg Ent Tab	ORG	00258377	.2360
1139	Ismelin 10mg Tab	CIB	00005509	.2119
1140	Ismelin 25mg Tab	CIB	00005517	.3743
1141	Isoniazid 100mg Tab	SAP	00440108	.0260
1142	Isoniazid 300mg Tab	SAP	00310247	.0600
1143	Isoptin 80mg Tab	SEA	00554316	.5376
1144	Isoptin 120mg Tab	SEA	00554324	.8212
1145	Isoptin SR 240mg LA Tab	SEA	00742554	1.3340
1146	Isopto Atropine 1% Oph Sol	ALC	00035017	.6160
1147	Isopto Carbachol 1.5% Oph Sol	ALC	00000655	.6347
1148	Isopto Carbachol 3% Oph Sol	ALC	00000663	.7647
1149	Isopto Carpine 0.5% Oph Sol	ALC	00000833	.2920
1150	Isopto Carpine 1% Oph Sol	ALC	00000841	.2920
1151	Isopto Carpine 2% Oph Sol	ALC	00000868	.3160
1152	Isopto Carpine 4% Oph Sol	ALC	00000884	.3720
1153	Isopto Carpine 6% Oph Sol	ALC	00000892	.4887
1154	Isopto Cetamide 10% Oph Sol	ALC	00000965	.0780

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1155	Isopto Homatropine 2% Oph Sol	ALC	00000779	.5480
1156	Isopto Homatropine 5% Oph Sol	ALC	00000787	.6507
1157	Isopto Tears 0.5% Oph Sol	ALC	00000809	.2980
1158	Isopto Tears 1% Oph Sol	ALC	00000817	.3593
1159	Isordil 5mg SL Tab	WYE	00243116	.0470
1160	Isordil 10mg Tab	WYE	00208973	.0188
1161	Isordil 30mg Tab	WYE	00279536	.0403
1162	Isotamine 100mg Tab	ICN	00261270	.0260
1163	Isotamine 300mg Tab	ICN	00272655	.0601
1164	Isuprel 0.5% Inh Sol-10mL Pk	WIN	00033227	8.1300
1165	Isuprel 10mg SL Tab	WIN	00033820	.1660
1166	Isuprel Mistometer Aero Sol-15mL Pk	WIN	00033219	12.4800
1167	K-10 1.33mEq/mL O/L	BEE	00436984	.0134
1168	K-Dur 20mEq SR Tab	KEY	00713376	.2483
1169	K-Long 6.7mEq LA Tab	ADI	00501972	.0825
1170	K-Lor 20mEq/Pouch Oral Pd-3g Pk	ABB	00481211	.3593
1171	K-Lyte/Cl 25mEq/Pouch Oral Pd-7.8g Pk	BRI	00464813	.4616
1172	Kalium Durules 10mEq LA Tab	AST	00471496	.0718
1173	Kaochlor-10 1.33mEq/mL O/L	ADI	00208590	.0196
1174	Kaochlor-20 Concentrate 2.66mEq/mL O/L	ADI	00208604	.0257
1175	Kaon 1.33mEq/mL O/L	ADI	00208701	.0265
1176	Kay Ciel 1.33mEq/mL O/L	BER	00704504	.0128
1177	Kayexalate 1mEq/g Oral Pd-454g Pk	WIN	01902776	62.9500
1178	Keflex 25mg/mL O/L	LIL	00015547	.0448
1179	Keflex 50mg/mL O/L	LIL	00035645	.0903
1180	Keflex 250mg Tab	LIL	00403628	.2324
1181	Keflex 500mg Tab	LIL	00244392	.4647
1182	Keflin Inj Pd-1g Pk	LIL	00015369	4.3647
1183	Keflin Inj Pd-2g Pk	LIL	00244406	8.4806
1184	Kefzol Inj Pd- 500mg Pk	LIL	00322288	3.6749
1185	Kefzol Inj Pd-1000mg Pk	LIL	00322296	7.0731
1186	Kemadrin 0.5mg/mL O/L	BWE	00004405	.0370
1187	Kemadrin 5mg Tab	BWE	00004758	.0400
1188	Kenalog 0.1% Cr	SQU	00029114	.2800
1189	Kenalog 0.1% Oint	SQU	00029572	.2800
1190	Kenalog-10 50mg/5mL Inj Susp-5mL Pk	SQU	00460761	14.1000
1191	Kenalog-40 40mg/mL Inj Susp-1mL Pk	SQU	00990876	6.5500
1192	Kenalog-40 200mg/5mL Inj Susp-5mL Pk	SQU	00029300	22.2500
1193	Kenalog-Orabase Oral Top Oint	SQU	00029505	1.1334
1194	Keralyt 6% Gel	WSD	00307580	.0875
1195	Keto-Diastix Strip-100 Pk	AME	00990647	10.8100
1196	Ketostix Strip-50 Pk	AME	00980595	5.3000
1197	Kidrolase Inj Pd-10000IUPk	RPP	00285463	123.1500
1198	Klean-Prep Pd 1 Kit	RIC	00741175	15.4000
1199	Koffex 3mg/mL O/L	ROG	00436895	.0085
1200	Kwellada 1% Cr	RCA	00026204	.0653
1201	Kwellada 1% Lot	RCA	00026212	.0480
1202	Kwellada 1% Shampoo	RCA	00026220	.0480
1203	Lacri-Lube 55% & 42.5% Oph Oint-3.5g Pk	ALL	00210889	4.2009
1204	Lanoxin 0.05mg/mL Inj Sol-1mL Pk	BWE	00004456	2.9000
1205	Lanoxin 0.50mg/2mL Inj Sol-2mL Pk	BWE	00004464	2.9000
1206	Lanoxin 0.05mg/mL O/L	BWE	00242713	.1410
1207	Lanoxin 0.0625mg Tab	BWE	00731269	.0860
1208	Lanoxin 0.125mg Tab	BWE	00035319	.0778
1209	Lanoxin 0.25mg Tab	BWE	00004685	.0778
1210	Lansoyl 78% Gel	JOU	00608734	8.7000
1211	Lanvis 40mg Tab	BWE	00282081	3.4960
1212	Largactil 50mg/2mL Inj Sol-2mL Pk	RPP	00163953	1.2810
1213	Largactil 5mg/mL O/L	RPP	00025151	.0234
1214	Largactil 20mg/mL O/L	RPP	00025178	.0347
1215	Largactil 40mg/mL O/L	RPP	00025186	.2649

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1216	Largactil 100mg Sup	RPP	00025283	1.7695
1217	Largactil 10mg Tab	RPP	00025453	.0084
1218	Largactil 25mg Tab	RPP	00025461	.0097
1219	Largactil 50mg Tab	RPP	00025488	.0148
1220	Largactil 100mg Tab	RPP	00025496	.0233
1221	Largactil 200mg Tab	RPP	00025518	.1042
1222	Larodopa 250mg Tab	HLR	00013331	.1550
1223	Larodopa 500mg Tab	HLR	00013358	.2625
1224	Lasix 20mg/2mL Inj Sol-2mL Pk	HOE	00217743	.8600
1225	Lasix 10mg/mL O/L	HOE	00432342	.2125
1226	Lasix 20mg Tab	HOE	00289590	.0723
1227	Lasix 40mg Tab	HOE	00012580	.1100
1228	Lectopam 1.5mg Tab	HLR	00682314	.1000
1229	Lectopam 3mg Tab	HLR	00518123	.1348
1230	Lectopam 6mg Tab	HLR	00518131	.1975
1231	Lenoltec No.2 15mg Tab	TCH	00653241	.0336
1232	Lenoltec No.3 30mg Tab	TCH	00653276	.0364
1233	Lenoltec No.4 300mg & 60mg Tab	TCH	00621463	.1699
1234	Lente Insulin 1000U/10mL Inj Susp	NOO	00612278	18.7000
1235	Leritine 25mg Tab	FRS	00010014	.3340
1236	Leritine 25mg/mL Inj Sol-1mL Pk	FRS	00009857	1.8032
1237	Leucovorin Calcium 5mg Tab	LED	00482900	5.1563
1238	Leukeran 2mg Tab	BWE	00004626	1.1300
1239	Levo-Dromoran 2mg/mL Inj Sol-1mL Pk	HLR	00012904	1.5750
1240	Levo-Dromoran 2mg Tab	HLR	00013366	.2360
1241	Levsin 0.125mg SL Tab	KUC	00125857	.1247
1242	Librium 5mg Cap	HLR	00012629	.0585
1243	Librium 10mg Cap	HLR	00012637	.0788
1244	Librium 25mg Cap	HLR	00012645	.1220
1245	Lidemol 0.05% Emol Cr	SYN	00424943	.4353
1246	Lidex 0.05% Cr	SYN	00036099	.4630
1247	Lidex 0.05% Oint	SYN	00274437	.4553
1248	Lidex Mild 0.01% Cr	SYN	00274453	.3100
1249	Lidex Mild 0.01% Oint	SYN	00274445	.3100
1250	Lincocin 500mg Cap	UPJ	00030589	.6660
1251	Lincocin 600mg/2mL Inj Sol-2mL Pk	UPJ	00030732	4.8500
1252	Lioresal 10mg Tab	GEI	00455881	.4433
1253	Lioresal DS 20mg Tab	GEI	00636576	.8629
1254	Liquifilm Forte 3% Oph Sol	ALL	00368911	.4166
1255	Liquifilm Tears 1.4% Oph Sol	ALL	00045616	.3469
1256	Lithane 300mg Cap	PFI	00406775	.0905
1257	Lithane 300mg Tab	PFI	00024406	.0905
1258	Lithizine 300mg Cap	TCH	00328790	.1475
1259	Locacorten 0.03% Cr	CIB	00005134	.5960
1260	Locacorten-Vioform 0.02% & 1% Ot Sol	CIB	00074454	1.1800
1261	Loestrin 1.5/30 0.03mg & 1.5mg Tab-21 Pk	PDA	00297143	11.2100
1262	Loestrin 1.5/30 0.03mg & 1.5mg Tab-28 Pk	PDA	00353027	11.2100
1263	Loftran 15mg Cap	BEE	00514519	.4592
1264	Loftran 30mg Cap	BEE	00514527	.6802
1265	Lomotil 0.5mg/mL O/L	SEA	00399353	.2016
1266	Lomotil 2.5mg Tab	SEA	00399345	.3383
1267	Loniten 2.5mg Tab	UPJ	00514497	.3040
1268	Loniten 10mg Tab	UPJ	00514500	.6700
1269	Lopid 300mg Cap	PDA	00599026	.4458
1270	Lopresor 50mg Tab	GEI	00397423	.1820
1271	Lopresor 100mg Tab	GEI	00397431	.3277
1272	Lopresor SR 100mg LA Tab	GEI	00658855	.3477
1273	Lopresor SR 200mg LA Tab	GEI	00534560	.5906
1274	Loprox 1% Cr	HOE	00593362	.4633
1275	Loxapac 5mg Tab	LED	00346780	.1991
1276	Loxapac 25mg/mL O/L	LED	00361364	.6946

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1277	Loxapac 10mg Tab	LED	00346799	.3316
1278	Loxapac 25mg Tab	LED	00346802	.5140
1279	Loxapac 50mg Tab	LED	00346810	.6853
1280	Lozide 2.5mg Tab	SEV	00564966	.4495
1281	Ludiomil 10mg Tab	CIB	00641855	.1940
1282	Ludiomil 25mg Tab	CIB	00360481	.2645
1283	Ludiomil 50mg Tab	CIB	00360503	.5003
1284	Ludiomil 75mg Tab	CIB	00360511	.6833
1285	Lupron 5mg/mL Inj Sol-2.8mL Kit	ABB	00727695	168.4400
1286	Lupron Depot 7.5mg Amp-Kit	ABB	00836273	362.2500
1287	Lyderm 0.05% Cr	TAR	00716863	.3075
1288	M.O.S. 1mg/mL O/L	ICN	00486582	.0218
1289	M.O.S. 5mg/mL O/L	ICN	00514217	.0846
1290	M.O.S. 10mg/mL O/L	ICN	00632503	.1999
1291	M.O.S. 20mg/mL O/L	ICN	00632481	.5268
1292	M.O.S. 10mg Sup	ICN	00624268	1.7549
1293	M.O.S. 20mg Sup	ICN	00624276	2.1044
1294	M.O.S. 30mg Sup	ICN	00636681	2.3321
1295	M.O.S. Conc 50 50mg/mL O/L	ICN	00690236	1.1635
1296	M.O.S.-10 10mg Tab	ICN	00690198	.2644
1297	M.O.S.-20 20mg Tab	ICN	00690201	.3037
1298	M.O.S.-40 40mg Tab	ICN	00690228	.3946
1299	M.O.S.-60 60mg Tab	ICN	00690244	.5479
1300	MS Contin 15mg LA Tab	PFR	00665134	.5550
1301	MS Contin 30mg LA Tab	PFR	00665142	.8380
1302	MS Contin 60mg LA Tab	PFR	00665150	1.4770
1303	MS Contin 100mg LA Tab	PFR	00665169	2.2520
1304	Maalox 40mg & 40mg/mL O/L	ROR	00026530	.0076
1305	Maalox 400mg & 400mg Tab	ROR	00026549	.0736
1306	Maalox TC 600mg & 300mg Chew Tab	ROR	00541125	.1045
1307	Maalox TC 120mg & 60mg/mL O/L	ROR	00497037	.0149
1308	Macrochantin 25mg Cap	EAT	00452491	.1920
1309	Macrochantin 50mg Cap	EAT	00452505	.3126
1310	Macrochantin 100mg Cap	EAT	00452483	.5501
1311	Mandelamine 500mg Ent Tab	PDA	00499013	.1219
1312	Mandelamine 1000mg Ent Tab	PDA	00499021	.1872
1313	Marplan 10mg Tab	HLR	00013307	.2035
1314	Maxeran 10mg/2mL Inj Sol-2mL Pk	NRD	00314706	1.5750
1315	Maxeran 1mg/mL O/L	NRD	00314714	.0329
1316	Maxeran 5mg Tab	NRD	00572268	.1002
1317	Maxeran 10mg Tab	NRD	00314722	.1735
1318	Maxidex 0.1% Oph Oint-3.5g Pk	ALC	00042579	8.1900
1319	Maxidex 0.1% Oph Susp	ALC	00042560	1.5100
1320	Mazepine 200mg Tab	ICN	00504742	.0919
1321	Mebaral 100mg Tab	WIN	00033707	.1919
1322	Mecillin 200 200mg Tab	MCN	00791741	.8190
1323	Medihaler-Epi Aero Susp-15mL Pk	RIK	00026271	17.4500
1324	Medihaler-Iso Aero Susp-15mL Pk	RIK	00026301	17.4500
1325	Medrol 0.25% Cr	UPJ	00031062	.1960
1326	Medrol 4mg Tab	UPJ	00030988	.3125
1327	Megace 40mg Tab	BRI	00386391	1.2435
1328	Megace 160mg Tab	BRI	00731323	4.9750
1329	Megacillin 500 100000IU/mL O/L	FRS	00009938	.0592
1330	Megacillin 500 500000IU Tab	FRS	00107484	.1026
1331	Mellaril 2mg/mL O/L	SAN	00027375	.0347
1332	Mellaril 30mg/mL O/L	SAN	00027359	.1469
1333	Mellaril 10mg Tab	SAN	00027529	.1095
1334	Mellaril 25mg Tab	SAN	00027537	.1360
1335	Mellaril 50mg Tab	SAN	00027545	.1842
1336	Mellaril 100mg Tab	SAN	00027553	.3286
1337	Meprobamate 400mg Tab	DTC	00092738	.0198

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1338	Mesantoin 100mg Tab	SAN	00027421	.1275
1339	Mestinon 180mg LA Tab	ICN	00869953	.3165
1340	Mestinon 60mg Tab	ICN	00869961	.1396
1341	Metamucil Oral Pd	SEA	00242438	9.0000
1342	Metamucil Sugar Free Oral Pd	SEA	00643688	9.0000
1343	Metandren 10mg Tab	CIB	00005622	.3563
1344	Metandren 25mg Tab	CIB	00005630	.8955
1345	Methotrexate 2.5mg Tab	LED	00014915	.9856
1346	Methotrexate 50mg/2mL Inj Sol-2mL Pk	LED	00321397	17.4900
1347	Methotrexate Sodium 20mg/2mL Inj Sol-2mL Pk	HOR	00614335	12.5000
1348	Methyldopa 125mg Tab	DTC	00456012	.0360
1349	Methyldopa 250mg Tab	DTC	00456004	.0609
1350	Mevacor 20mg Tab	MSD	00795860	1.6356
1351	Mexitil 100mg Cap	BOE	00599956	.4780
1352	Mexitil 200mg Cap	BOE	00599964	.6402
1353	Micatin 2% Cr	MCN	00326968	.5083
1354	Micro-K Extencaps 8mEq LA Cap	ROB	00516244	.0731
1355	Micro-K-10 10mEq LA Cap	ROB	00632759	.0788
1356	MicroLax Micro Enema	PHD	00024848	7.7000
1357	Micronor 0.35mg Tab-28 Pk	ORT	00037605	11.3010
1358	Midamor 5mg Tab	MSD	00487805	.2804
1359	Milk of Magnesia 80mg/mL O/L	WAM	00036218	3.8000
1360	Milk of Magnesia 80mg/mL O/L	DTC	00093807	3.6000
1361	Milk of Magnesia 300mg Tab	DTC	00093815	2.8000
1362	Min-Ovral 0.03mg & 0.15mg Tab-21 Pk	WYE	00782432	10.8500
1363	Min-Ovral 0.03mg & 0.15mg Tab-28 Pk	WYE	00782440	10.8500
1364	Mineral Oil O/L	DTC	00093947	4.5500
1365	Minestrin 1/20 0.02mg & 1mg Tab-21 Pk	PDA	00315966	11.2100
1366	Minestrin 1/20 0.02mg & 1mg Tab-28 Pk	PDA	00343838	11.2100
1367	Minipress 1mg Tab	PFI	00560952	.2632
1368	Minipress 2mg Tab	PFI	00560960	.3574
1369	Minipress 5mg Tab	PFI	00560979	.4913
1370	Miocarpine 1% Oph Sol	IOB	00759945	.2700
1371	Miocarpine 2% Oph Sol	IOB	00759961	.2933
1372	Miocarpine 4% Oph Sol	IOB	00760099	.3433
1373	Miocarpine 6% Oph Sol	IOB	00759953	.4700
1374	Mixtard 1000U/10mL Inj Susp	HOR	00552259	24.7000
1375	Mixtard 15/85 1000U/10mL Inj Susp	HOR	00773654	23.2000
1376	Mixtard 30/70 Human 1000U/10mL Inj Susp	HOR	00632694	22.6000
1377	Mixtard 50/50 1000U/10mL Inj Susp	HOR	00632678	22.6000
1378	Mixtard Human 100U/mL Inj Susp	HOR	00983780	22.6000
1379	Mobenol 500mg Tab	HOR	00013889	.0906
1380	Modecate 125mg/5mL Inj Susp-5mL Pk	SQU	00349917	41.9000
1381	Modecate Concentrate 100mg/mL Inj Sol 1mL Pk	SQU	00755575	36.8700
1382	Moditen Enanthate 125mg/5mL Inj Sol-5mL Pk	SQU	00029173	41.9000
1383	Moditen HCl 0.5mg/mL O/L	SQU	00245240	.0305
1384	Moditen HCl 1mg Tab	SQU	00029378	.1880
1385	Moditen HCl 2mg Tab	SQU	00029386	.2370
1386	Moditen HCl 5mg Tab	SQU	00029408	.3127
1387	Modulon 100mg Tab	JOU	00587869	.2700
1388	Moduret 5mg & 50mg Tab	MSD	00487813	.3285
1389	Mogadon 5mg Tab	HLR	00511528	.1326
1390	Mogadon 10mg Tab	HLR	00511536	.1985
1391	Monistat 2% Vag Cr	ORT	00980625	.2704
1392	Monistat 3 400mg Vag Sup	ORT	00530999	5.3967
1393	Monistat 3 Dual Pak 2%Cr-15g & 400mg Vag Sup-3 Pk	ORT	00685917	16.1900
1394	Monistat 5 100mg Tamp	ORT	00504203	3.2380
1395	Monistat 7 2% Vag Cr-App	ORT	00321036	.3519
1396	Monistat 7 100mg Vag Sup-7 Pk	ORT	00387193	16.5400
1397	Monistat Derm 2% Cr	ORT	00497797	.5083
1398	Monitan 100mg Tab	WYE	00695645	.2540

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1399	Monitan 200mg Tab	WYE	00695653	.3804
1400	Monitan 400mg Tab	WYE	00771341	.7545
1401	Morphine 15mg/mL Inj Sol-1mL Pk	GLA	00335371	.5214
1402	Morphine HP-50 50mg/mL Inj Sol-1mL Pk	SAB	00617288	2.9950
1403	Morphitec- 1 1mg/mL O/L	TCH	00607762	.0208
1404	Morphitec- 5 5mg/mL O/L	TCH	00607770	.0809
1405	Morphitec-10 10mg/mL O/L	TCH	00690783	.1911
1406	Morphitec-20 20mg/mL O/L	TCH	00690791	.5037
1407	Motilium 10mg Tab	JAN	00855820	.2249
1408	Motrin 300mg Tab	UPJ	00327794	.1421
1409	Motrin 400mg Tab	UPJ	00364142	.1835
1410	Motrin 600mg Tab	UPJ	00484911	.2574
1411	Mucomyst 20% Aero Sol-10mL Pk	BRI	00606235	6.7500
1412	Mucomyst 20% Aero Sol-30mL Pk	BRI	00990833	16.3500
1413	Multipax 10mg Cap	ROR	00723487	.0350
1414	Multipax 25mg Cap	ROR	00723479	.0568
1415	Multipax 50mg Cap	ROR	00723592	.0795
1416	Muro-128 5% Oph Oint-3.5g Pk	BAU	00750816	4.4800
1417	Muro-128 5% Oph Sol	BAU	00750824	.2907
1418	Murocel 1% Oph Sol	BAU	00750808	.2774
1419	Mustargen Inj Pd-10mg Pk	MSD	00016063	6.9400
1420	Mutamycin Inj Pd-5mg Pk	BRI	00381799	80.3000
1421	Myambutol 100mg Tab	LED	00127957	.0914
1422	Myambutol 400mg Tab	LED	00127965	.2546
1423	Mycifradin 25mg/mL O/L	UPJ	00030805	.0725
1424	Mycifradin 500mg Tab	UPJ	00030996	.2305
1425	Myciguent 0.5% Oint	UPJ	00031070	.1720
1426	Myclo 10mg/g Cr	BOE	00516805	.1622
1427	Myclo 10mg/mL Top Sol	BOE	00516821	.3441
1428	Myclo 10mg/g Vag Cr-App	BOE	00516813	.2405
1429	Myclo 100mg Vag Tab	BOE	00516848	2.0037
1430	Mycostatin 100000U/g Cr	SQU	00029092	.2217
1431	Mycostatin 100000U/mL O/L	SQU	00248169	.1450
1432	Mycostatin 500000U Tab	SQU	00029416	.1789
1433	Mycostatin, 100000U/g Oint	SQU	00029556	.2217
1434	Mycostatin 250000U/g Vag Cr	SQU	00295973	.0696
1435	Mycostatin 100000U Vag Tab	SQU	00029491	.2603
1436	Mydrin 2.5% Oph Sol	ALC	00465763	.8820
1437	Mydrapred 0.25% & 1% Oph Sol	ALC	00411124	2.3780
1438	Mylanta Double Strength Plain 80mg & 80mg/mL O/L	PDA	00420646	.0143
1439	Myleran 2mg Tab	BWE	00004618	1.2000
1440	Myochrysine 10mg/mL Inj Sol-1mL Pk	RPP	00025062	8.6500
1441	Myochrysine 25mg/mL Inj Sol-1mL Pk	RPP	00025070	10.4900
1442	Myochrysine 50mg/mL Inj Sol-1mL Pk	RPP	00025089	16.2900
1443	Mysoline 125mg Tab	AYE	00002623	.0559
1444	Mysoline 250mg Tab	AYE	00002631	.0880
1445	NPH Insulin 1000U/10mL Inj Susp	NOO	00612235	18.7000
1446	Nadopen-V 25mg/mL O/L	NDA	00018635	.0250
1447	Nadopen-V 300mg Tab	NDA	00018740	.0399
1448	Nadostine 100000U/g Cr	NDA	00288217	.1600
1449	Nadostine 100000U/mL O/L	NDA	00282219	.0620
1450	Nadostine 500000U Tab	NDA	00270113	.0775
1451	Nadostine 100000U/g Oint	NDA	00288195	.1850
1452	Nadostine 25000U/g Vag Cr	NDA	00288209	.0475
1453	Nadostine 100000U Vag Tab	NDA	00270091	.1470
1454	Nalcrom 100mg Cap	FIS	00500895	.9167
1455	Nalfon 300mg Cap	LIL	00328642	.2714
1456	Nalfon 600mg Tab	LIL	00345504	.4923
1457	Naphcon Forte 0.1% Oph Sol	ALC	00390283	8.2000
1458	Naprosyn 25mg/mL O/L	SYN	00587923	.0574
1459	Naprosyn 500mg Sup	SYN	00531022	1.2333

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1460	Naprosyn 125mg Tab	SYN	00299413	.2238
1461	Naprosyn 250mg Tab	SYN	00335193	.3702
1462	Naprosyn 375mg Tab	SYN	00583367	.4912
1463	Naprosyn 500mg Tab	SYN	00525537	.8616
1464	Naprosyn SR 750mg Tab	SYN	00788767	1.1500
1465	Narcan 0.4mg/mL Inj Sol-1mL Pk	DUP	00589020	8.9990
1466	Nardil 15mg Tab	PDA	00476552	.2878
1467	Natulan 50mg Cap	HLR	00012750	.4000
1468	Natural Source Laxative Oral Pd	LEA	00628875	4.7000
1469	Navane 2mg Cap	PFI	00024430	.1782
1470	Navane 5mg Cap	PFI	00024449	.3064
1471	Navane 10mg Cap	PFI	00024457	.3945
1472	Naxen 125mg Tab	SYP	00615307	.0672
1473	Naxen 250mg Tab	SYP	00615315	.1365
1474	Naxen 375mg Tab	SYP	00615323	.1869
1475	Naxen 500mg Tab	SYP	00615331	.2709
1476	Nebcin 20mg/2mL Inj Sol-2mL Pk	LIL	00325457	3.2794
1477	Nebcin 60mg/1.5mL Inj Sol-1.5mL Pk	LIL	00375764	6.0978
1478	Nebcin 80mg/2mL Inj Sol-2mL Pk	LIL	00325449	6.6188
1479	Nebcin 80mg/2mL Inj Sol-2mL Hypo	LIL	00381969	7.3308
1480	NegGram 50mg/mL O/L	WIN	00036250	.0839
1481	NegGram 500mg Tab	WIN	00033723	.5144
1482	Nemasol 500mg Tab	ICN	00236691	.1932
1483	Nembutal 100mg Cap	ABB	00000086	.1812
1484	Neoloid Emuls	LED	00127922	12.0000
1485	Neosporin 10000U & 2.5mg & 0.025mg/mL Oph/Ot Sol	BWE	00694371	.7150
1486	Neosporin 10000U & 5mg & 400U/g Oph Oint-3.5g Pk	BWE	00694398	7.3000
1487	Neptazane 50mg Tab	LED	00127949	.3817
1488	Nerisone 0.1% Cr	STI	00587826	.3533
1489	Nerisone 0.1% Oily Cr	STI	00587818	.3533
1490	Nerisone 0.1% Oint	STI	00587834	.3533
1491	Neuleptil 5mg Cap	RPP	00024880	.1606
1492	Neuleptil 10mg Cap	RPP	00024899	.2298
1493	Neuleptil 10mg/mL O/L	RPP	00379301	.2720
1494	Neutralca-S 40mg & 40mg/mL O/L	DES	00261173	.0082
1495	Niacin 50mg Tab	LIL	00015768	.0333
1496	Niacin 100mg Tab	LIL	00015776	.0387
1497	Niacin-ICN 50mg Tab	ICN	00268593	.0106
1498	Niacin-ICN 100mg Tab	ICN	00268585	.0282
1499	Nilstat 100000U/g Cr	LED	00449792	.1053
1500	Nilstat 100000U/mL O/L	LED	00014850	.0625
1501	Nilstat 500000U Tab	LED	00014974	.0785
1502	Nilstat 100000U/g Oint	LED	00449806	.1053
1503	Nilstat 100000U/g Vag Cr	LED	00278793	.2503
1504	Nilstat 100000U Vag Tab	LED	00015067	.1499
1505	Nipride Inj Pd-50mg Pk	HLR	00336459	14.5800
1506	Nitro-Bid 2% Oint	ROU	00442925	.1675
1507	Nitrofurantoin 100mg Tab	DTC	00092819	.0212
1508	Nitrogard-SR 1mg LA Tab	AST	00749362	.1735
1509	Nitrogard-SR 2mg LA Tab	AST	00749397	.2090
1510	Nitrogard-SR 3mg LA Tab	AST	00749389	.2435
1511	Nitrogard-SR 5mg LA Tab	AST	00749370	.3135
1512	Nitrol 2% Oint	ROR	00608785	.1902
1513	Nitrolingual 0.4mg/metered dose Spray-200 dose Pk	ROR	00695726	11.6000
1514	Nitrong 2% Oint	RPP	00525529	.1497
1515	Nitrostat 0.3mg SL Tab-100 Pk	PDA	00037613	2.5000
1516	Nitrostat 0.6mg SL Tab-100 Pk	PDA	00037621	2.5000
1517	Nix 1% Cr Rinse	BWE	00771368	.0940
1518	Nizoral 20mg/mL O/L	JAN	00788813	.1992
1519	Nizoral 2% Cr	JAN	00703974	.4290
1520	Nizoral 200mg Tab	JAN	00633836	1.7790

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1521	Noctec 500mg Cap	SQU	00029041	.1020
1522	Noctec 100mg/mL O/L	SQU	00029327	.0208
1523	Nolvadex 10mg Tab	ICI	00419052	1.1776
1524	Nolvadex D 20mg Tab	ICI	00638706	2.1465
1525	Norfemac 5% Cr	NRD	00441147	.2820
1526	Norfemac 5% Oint	NRD	00441155	.2820
1527	Norflex 60mg/2mL Inj Sol-2mL Pk	RIK	00171468	7.4167
1528	Norflex 100mg Tab	RIK	00171476	.5825
1529	Norinyl 1 + 50 0.05mg & 1mg Tab-21 Pk	SYN	00030333	10.1500
1530	Norinyl 1 + 50 0.05mg & 1mg Tab-28 Pk	SYN	00340847	10.1500
1531	Norinyl 1 + 80 0.08mg & 1mg Tab-21 Pk	SYN	00030341	10.9600
1532	Norinyl 1 + 80 0.08mg & 1mg Tab-28 Pk	SYN	00340855	10.9600
1533	Norinyl 2 0.1mg & 2mg Tab-21 Pk	SYN	00030368	10.6800
1534	Norinyl 2 0.1mg & 2mg Tab-28 Pk	SYN	00340839	10.6800
1535	Norlestrin 1/50 0.05mg & 1mg Tab-21 Pk	PDA	00024007	11.2100
1536	Noroxin 400mg Tab	MSD	00643025	2.0584
1537	Norpace 100mg Cap	SEA	00396370	.2051
1538	Norpace 150mg Cap	SEA	00396389	.2901
1539	Norpace CR 150mg LA Tab	SEA	00584231	.5125
1540	Norpramin 25mg Tab	MER	00353868	.3223
1541	Norpramin 50mg Tab	MER	00353876	.6044
1542	Norpramin 75mg Tab	MER	00425265	.8922
1543	Novamoxin 250mg Cap	NOP	00406724	.1089
1544	Novamoxin 500mg Cap	NOP	00406716	.2120
1545	Novamoxin .25mg/mL O/L	NOP	00452149	.0221
1546	Novamoxin 50mg/mL O/L	NOP	00452130	.0325
1547	Novasen 325mg Ent Tab	NOP	00216666	.0154
1548	Novasen 650mg Ent Tab	NOP	00229296	.0255
1549	Novo-Ampicillin 250mg Cap	NOP	00020877	.0863
1550	Novo-Ampicillin 500mg Cap	NOP	00020885	.1675
1551	Novo-Ampicillin 25mg/mL O/L	NOP	00021121	.0175
1552	Novo-Ampicillin 50mg/mL O/L	NOP	00021148	.0276
1553	Novo-Butamide 500mg Tab	NOP	00021849	.0246
1554	Novo-Butazone 100mg Tab	NOP	00021660	.0145
1555	Novo-C 100mg Tab	NOP	00021970	1.6000
1556	Novo-C 250mg Tab	NOP	00021237	2.7000
1557	Novo-C 500mg Tab	NOP	00021997	4.2000
1558	Novo-C 1000mg Tab	NOP	00535907	9.1000
1559	Novo-Carbamaz 200mg Tab	NOP	00782718	.0923
1560	Novo-Chlorhydrate 500mg Cap	NOP	00020893	.0336
1561	Novo-Chloroquine 250mg Tab	NOP	00021261	.0699
1562	Novo-Chlorpromazine 10mg Tab	NOP	00232157	.0084
1563	Novo-Chlorpromazine 25mg Tab	NOP	00232823	.0097
1564	Novo-Chlorpromazine 50mg Tab	NOP	00232807	.0148
1565	Novo-Chlorpromazine 100mg Tab	NOP	00232831	.0233
1566	Novo-Cimetidine 200mg Tab	NOP	00582409	.0860
1567	Novo-Cimetidine 300mg Tab	NOP	00582417	.1008
1568	Novo-Cimetidine 400mg Tab	NOP	00603678	.1586
1569	Novo-Cimetidine 600mg Tab	NOP	00603686	.2017
1570	Novo-Cimetidine 800mg Tab	NOP	00663727	.2952
1571	Novo-Clopate 3.75mg Cap	NOP	00628190	.0730
1572	Novo-Clopate 7.5mg Cap	NOP	00628204	.1612
1573	Novo-Clopate 15mg Cap	NOP	00628212	.2755
1574	Novo-Cloxin 250mg Cap	NOP	00337765	.1045
1575	Novo-Cloxin 500mg Cap	NOP	00337773	.2048
1576	Novo-Cloxin 25mg/mL O/L	NOP	00337757	.0252
1577	Novo-Difenac 25mg Ent Tab	NOP	00808539	.2251
1578	Novo-Difenac 50mg Ent Tab	NOP	00808547	.4502
1579	Novo-Diltazem 30mg Tab	NOP	00862924	.2725
1580	Novo-Diltazem 60mg Tab	NOP	00862932	.4782
1581	Novo-Dimenate 50mg Tab	NOP	00021423	.0091

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1582	Novo-Dipam 2mg Tab	NOP	00272434	.0061
1583	Novo-Dipam 5mg Tab	NOP	00272442	.0067
1584	Novo-Dipam 10mg Tab	NOP	00272450	.0079
1585	Novo-Doparil-15 250mg & 15mg Tab	NOP	00363642	.0715
1586	Novo-Doparil-25 250mg & 25mg Tab	NOP	00363634	.0739
1587	Novo-Ferrogluc 300mg Tab	NOP	00021458	2.6500
1588	Novo-Fibrate 500mg Cap	NOP	00337382	.0498
1589	Novo-Fibre Tab	NOP	00595829	5.7000
1590	Novo-Flupam 15mg Cap	NOP	00496545	.0389
1591	Novo-Flupam 30mg Cap	NOP	00496553	.0442
1592	Novo-Flurazine 1mg Tab	NOP	00021857	.0077
1593	Novo-Flurazine 2mg Tab	NOP	00021865	.0085
1594	Novo-Flurazine 5mg Tab	NOP	00021873	.0115
1595	Novo-Flurazine 10mg Tab	NOP	00021881	.0188
1596	Novo-Folacid 5mg Tab	NOP	00021466	.0083
1597	Novo-Fumar 200mg Tab	NOP	00021431	3.8000
1598	Novo-Furan 5mg/mL O/L	NOP	00232971	.0284
1599	Novo-Furan 50mg Tab	NOP	00021563	.0195
1600	Novo-Furan 100mg Tab	NOP	00021571	.0212
1601	Novo-Gesic 325mg Tab	NOP	00389218	.0121
1602	Novo-Gesic C-15 15mg Tab	NOP	00687200	.0408
1603	Novo-Gesic C-30 30mg Tab	NOP	00687219	.0443
1604	Novo-Gesic Forte 500mg Tab	NOP	00482323	.0157
1605	Novo-Hexidyl 2mg Tab	NOP	00021911	.0121
1606	Novo-Hexidyl 5mg Tab	NOP	00021938	.0154
1607	Novo-Hydrazide 25mg Tab	NOP	00021474	.0071
1608	Novo-Hydrazide 50mg Tab	NOP	00021482	.0081
1609	Novo-Hydroxyzin 10mg Cap	NOP	00738824	.0350
1610	Novo-Hydroxyzin 25mg Cap	NOP	00738832	.0569
1611	Novo-Hydroxyzin 50mg Cap	NOP	00738840	.0793
1612	Novo-Hylazin 25mg Tab	NOP	00759473	.1745
1613	Novo-Hylazin 50mg Tab	NOP	00759481	.2667
1614	Novo-Lente-K 8mEq LA Tab	NOP	00602876	.0207
1615	Novo-Lexin 250mg Cap	NOP	00342084	.1821
1616	Novo-Lexin 500mg Cap	NOP	00342114	.3593
1617	Novo-Lexin 25mg/mL O/L	NOP	00342106	.0378
1618	Novo-Lexin 50mg/mL O/L	NOP	00342092	.0767
1619	Novo-Lexin 250mg Tab	NOP	00583413	.1817
1620	Novo-Lexin 500mg Tab	NOP	00583421	.3576
1621	Novo-Lorazem 0.5mg Tab	NOP	00711101	.0492
1622	Novo-Lorazem 1mg Tab	NOP	00637742	.0557
1623	Novo-Lorazem 2mg Tab	NOP	00637750	.0906
1624	Novo-Medopa 125mg Tab	NOP	00337463	.0375
1625	Novo-Medopa 250mg Tab	NOP	00337471	.0637
1626	Novo-Medopa 500mg Tab	NOP	00337498	.1215
1627	Novo-Mepro 400mg Tab	NOP	00021547	.0208
1628	Novo-Methacin 25mg Cap	NOP	00337420	.1134
1629	Novo-Methacin 50mg Cap	NOP	00337439	.1963
1630	Novo-Metoprol 50mg Tab	NOP	00648035	.1290
1631	Novo-Metoprol 100mg Tab	NOP	00648043	.2340
1632	Novo-Metoprol (Uncoated) 50mg Tab	NOP	00842648	.1290
1633	Novo-Metoprol (Uncoated) 100mg Tab	NOP	00842656	.2340
1634	Novo-Mucilax Oral Pd	NOP	00551546	4.9000
1635	Novo-Mucilax Sugar Free Oral Pd	NOP	00678945	4.9000
1636	Novo-Naprox 125mg Tab	NOP	00565369	.0640
1637	Novo-Naprox 250mg Tab	NOP	00565350	.1300
1638	Novo-Naprox 375mg Tab	NOP	00627097	.1780
1639	Novo-Naprox 500mg Tab	NOP	00589861	.2580
1640	Novo-Niacin 50mg Tab	NOP	00274496	.0122
1641	Novo-Nidazol 250mg Tab	NOP	00021555	.0294
1642	Novo-Nifedin 10mg Cap	NOP	00756830	.3573

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1643	Novo-Pen-500 500000IU Tab	NOP	00151432	.0448
1644	Novo-Pen-VK-500 60mg/mL O/L	NOP	00391603	.0346
1645	Novo-Pen-VK-500 300mg Tab	NOP	00021202	.0418
1646	Novo-Pentobarb 100mg Cap	NOP	00020990	.0504
1647	Novo-Peridol 0.5mg Tab	NOP	00363685	.0451
1648	Novo-Peridol 1mg Tab	NOP	00363677	.0731
1649	Novo-Peridol 2mg Tab	NOP	00363669	.1318
1650	Novo-Peridol 5mg Tab	NOP	00363650	.1894
1651	Novo-Peridol 10mg Tab	NOP	00713449	.3080
1652	Novo-Peridol 20mg Tab	NOP	00768820	.6636
1653	Novo-Pheniram 4mg Tab	NOP	00021288	.0117
1654	Novo-Pindol 5mg Tab	NOP	00869007	.2872
1655	Novo-Pirocam 10mg Cap	NOP	00695718	.4548
1656	Novo-Pirocam 20mg Cap	NOP	00695696	.7850
1657	Novo-Poxide 5mg Cap	NOP	00020915	.0136
1658	Novo-Poxide 10mg Cap	NOP	00020923	.0163
1659	Novo-Poxide 25mg Cap	NOP	00020931	.0215
1660	Novo-Pramine 10mg Tab	NOP	00021504	.0070
1661	Novo-Pramine 25mg Tab	NOP	00021512	.0127
1662	Novo-Pramine 50mg Tab	NOP	00021520	.0220
1663	Novo-Pranol 10mg Tab	NOP	00496480	.0203
1664	Novo-Pranol 20mg Tab	NOP	00740675	.0385
1665	Novo-Pranol 40mg Tab	NOP	00496499	.0366
1666	Novo-Pranol 80mg Tab	NOP	00496502	.0617
1667	Novo-Pranol 120mg Tab	NOP	00549657	.1174
1668	Novo-Prednisone 5mg Tab	NOP	00021695	.0098
1669	Novo-Prednisone 50mg Tab	NOP	00232378	.1060
1670	Novo-Profen 200mg Tab	NOP	00629324	.0365
1671	Novo-Profen 300mg Tab	NOP	00629332	.0370
1672	Novo-Profen 400mg Tab	NOP	00629340	.0640
1673	Novo-Profen 600mg Tab	NOP	00629359	.0612
1674	Novo-Propamide 250mg Tab	NOP	00021350	.0440
1675	Novo-Propoxyn Cap	NOP	00151351	.0347
1676	Novo-Purol 100mg Tab	NOP	00364282	.0187
1677	Novo-Purol 200mg Tab	NOP	00565342	.0370
1678	Novo-Purol 300mg Tab	NOP	00363693	.0455
1679	Novo-Pyrazone 100mg Tab	NOP	00475068	.0417
1680	Novo-Pyrazone 200mg Tab	NOP	00475076	.0695
1681	Novo-Quinidin 200mg Tab	NOP	00021733	.0668
1682	Novo-Quinine 200mg Cap	NOP	00021008	.0916
1683	Novo-Quinine 300mg Cap	NOP	00021016	.1443
1684	Novo-Ranidine 150mg Tab	NOP	00828564	.7160
1685	Novo-Ranidine 300mg Tab	NOP	00828556	1.3503
1686	Novo-Reserpine 0.25mg Tab	NOP	00021784	.0128
1687	Novo-Ridazine 10mg Tab	NOP	00037508	.0151
1688	Novo-Ridazine 25mg Tab	NOP	00037494	.0282
1689	Novo-Ridazine 50mg Tab	NOP	00037486	.0511
1690	Novo-Ridazine 100mg Tab	NOP	00037478	.1025
1691	Novo-Rythro Encap 250mg Ent Pel Cap	NOP	00878669	.2555
1692	Novo-Rythro Estolate 250mg Cap	NOP	00020966	.1199
1693	Novo-Rythro Estolate 25mg/mL O/L	NOP	00021172	.0250
1694	Novo-Rythro Estolate 50mg/mL O/L	NOP	00262595	.0504
1695	Novo-Rythro Stearate 250mg Tab	NOP	00391581	.0912
1696	Novo-Salmol 2mg Tab	NOP	00620955	.0683
1697	Novo-Salmol 4mg Tab	NOP	00620963	.1129
1698	Novo-Secobarb 100mg Cap	NOP	00021032	.0557
1699	Novo-Semide 20mg Tab	NOP	00337730	.0077
1700	Novo-Semide 40mg Tab	NOP	00337749	.0112
1701	Novo-Sorbide 10mg Tab	NOP	00458686	.0188
1702	Novo-Sorbide 30mg Tab	NOP	00458694	.0403
1703	Novo-Soxazole 500mg Tab	NOP	00021792	.0410

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1704	Novo-Spiroton 25mg Tab	NOP	00613215	.0857
1705	Novo-Spiroton 100mg Tab	NOP	00613223	.2625
1706	Novo-Spirozine-25 25mg & 25mg Tab	NOP	00613231	.1065
1707	Novo-Spirozine-50 50mg & 50mg Tab	NOP	00657182	.2751
1708	Novo-Sundac 150mg Tab	NOP	00745588	.4235
1709	Novo-Sundac 200mg Tab	NOP	00745596	.5364
1710	Novo-Tamoxifen 10mg Tab	NOP	00851965	.5500
1711	Novo-Tamoxifen 20mg Tab	NOP	00851973	1.0000
1712	Novo-Tetra 250mg Cap	NOP	00021059	.0205
1713	Novo-Tetra 25mg/mL O/L	NOP	00151416	.0191
1714	Novo-Thalidone 50mg Tab	NOP	00337447	.0254
1715	Novo-Thalidone 100mg Tab	NOP	00337455	.0418
1716	Novo-Triamzide 25mg & 50mg Tab	NOP	00532657	.0541
1717	Novo-Trimel 40mg & 8mg/mL O/L	NOP	00726540	.0240
1718	Novo-Trimel 400mg & 80mg Tab	NOP	00510637	.0867
1719	Novo-Trimel DS 800mg & 160mg Tab	NOP	00510645	.1643
1720	Novo-Triolam 0.25mg Tab	NOP	00872431	.1260
1721	Novo-Triphyl 100mg Tab	NOP	00458708	.0225
1722	Novo-Triphyl 200mg Tab	NOP	00458716	.0257
1723	Novo-Triphyl 300mg Tab	NOP	00565377	.0336
1724	Novo-Triptyn 10mg Tab	NOP	00037400	.0070
1725	Novo-Triptyn 25mg Tab	NOP	00037419	.0093
1726	Novo-Triptyn 50mg Tab	NOP	00037427	.0200
1727	Novo-Veramil 80mg Tab	NOP	00812331	.3836
1728	Novo-Veramil 120mg Tab	NOP	00812358	.5864
1729	Novo-Zolamide 250mg Tab	NOP	00488275	.0281
1730	Novolin 30/70 1000U/10mL Inj Susp	NOO	00650935	22.4000
1731	Novolin 30/70 Penfill 150U/1.5mL Inj Susp	NOO	00981052	22.4000
1732	Novolin-Lente 1000U/10mL Inj Susp	NOO	00612200	22.4000
1733	Novolin-NPH 1000U/10mL Inj Susp	NOO	00612197	22.4000
1734	Novolin-NPH Penfill 150U/1.5mL Inj Susp	NOO	00981044	22.4000
1735	Novolin-Toronto (Regular) 1000U/10mL Inj Sol	NOO	00612189	22.4000
1736	Novolin-Toronto (Regular) Penfill 150U/1.5mL Inj Sol	NOO	00980765	22.4000
1737	Novolin-Ultralente 1000U/10mL Inj Susp	NOO	00644358	22.4000
1738	Novoxapam 10mg Tab	NOP	00500852	.0120
1739	Novoxapam 15mg Tab	NOP	00496529	.0126
1740	Novoxapam 30mg Tab	NOP	00496537	.0170
1741	Nozinan 25mg/mL Inj Sol-1mL Pk	RPP	00025003	2.2750
1742	Nozinan 5mg/mL O/L	RPP	00025194	.0539
1743	Nozinan 40mg/mL O/L	RPP	00025208	.3936
1744	Nozinan 2mg Tab	RPP	00025577	.0692
1745	Nozinan 5mg Tab	RPP	00025585	.1001
1746	Nozinan 25mg Tab	RPP	00025593	.2572
1747	Nozinan 50mg Tab	RPP	00025607	.3896
1748	Nu-Amilzidè 5mg & 50mg Tab	NXP	00886106	.2500
1749	Nu-Amoxi 250mg Cap	NXP	00865567	.1100
1750	Nu-Amoxi 500mg Cap	NXP	00865575	.2141
1751	Nu-Amoxi 25mg/mL O/L	NXP	00865540	.0250
1752	Nu-Amoxi 50mg/mL O/L	NXP	00865559	.0370
1753	Nu-Ampi 250mg Cap	NXP	00717657	.0872
1754	Nu-Ampi 500mg Cap	NXP	00717673	.1691
1755	Nu-Ampi 25mg/mL O/L	NXP	00717495	.0200
1756	Nu-Ampi 50mg/mL O/L	NXP	00717649	.0310
1757	Nu-Atenol 50mg Tab	NXP	00886114	.4620
1758	Nu-Atenol 100mg Tab	NXP	00886122	.7725
1759	Nu-Cephalex 250mg Tab	NXP	00865877	.1907
1760	Nu-Cephalex 500mg Tab	NXP	00865885	.3753
1761	Nu-Cimet 200mg Tab	NXP	00865796	.0880
1762	Nu-Cimet 300mg Tab	NXP	00865818	.1032
1763	Nu-Cimet 400mg Tab	NXP	00865826	.1630
1764	Nu-Cimet 600mg Tab	NXP	00865834	.2075

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1765	Nu-Cloxi 250mg Cap	NXP	00717584	.1105
1766	Nu-Cloxi 500mg Cap	NXP	00717592	.2168
1767	Nu-Cloxi 25mg/mL O/L	NXP	00717630	.0285
1768	Nu-Cotrimox 40mg & 8mg/mL O/L	NXP	00865753	.0250
1769	Nu-Cotrimox 400mg & 80mg Tab	NXP	00865710	.0891
1770	Nu-Cotrimox 800mg & 160mg Tab	NXP	00865729	.1745
1771	Nu-Diltiaz 30mg Tab	NXP	00886068	.3228
1772	Nu-Diltiaz 60mg Tab	NXP	00886076	.5662
1773	Nu-Indo 25mg Cap	NXP	00865850	.1243
1774	Nu-Indo 50mg Cap	NXP	00865869	.2154
1775	Nu-Loraz 0.5mg Tab	NXP	00865672	.0538
1776	Nu-Loraz 1mg Tab	NXP	00865680	.0637
1777	Nu-Loraz 2mg Tab	NXP	00865699	.1035
1778	Nu-Metop 50mg Tab	NXP	00865605	.1474
1779	Nu-Metop 100mg Tab	NXP	00865613	.2675
1780	Nu-Naprox 125mg Tab	NXP	00865621	.0698
1781	Nu-Naprox 250mg Tab	NXP	00865648	.1417
1782	Nu-Naprox 375mg Tab	NXP	00865656	.1940
1783	Nu-Naprox 500mg Tab	NXP	00865664	.2812
1784	Nu-Nifed 10mg Cap	NXP	00865591	.3790
1785	Nu-Pen VK 300mg Tab	NXP	00717568	.0426
1786	Nu-Pindol 5mg Tab	NXP	00886149	.3210
1787	Nu-Pindol 10mg Tab	NXP	00886009	.5219
1788	Nu-Pindol 15mg Tab	NXP	00886130	.7659
1789	Nu-Pirox 10mg Cap	NXP	00865761	.4683
1790	Nu-Pirox 20mg Cap	NXP	00865788	.8083
1791	Nu-Ranit 150mg Tab	NXP	00865737	.8577
1792	Nu-Ranit 300mg Tab	NXP	00865745	1.6169
1793	Nu-Tetra 250mg Cap	NXP	00717606	.0220
1794	Nu-Triazide 25mg & 50mg Tab	NXP	00865532	.0610
1795	Nu-Triazo 0.125mg Tab	NXP	00886084	.1118
1796	Nu-Triazo 0.25mg Tab	NXP	00886092	.1383
1797	Numorphan 1.5mg/mL Inj Sol-1mL Pk	DUP	00585688	2.8980
1798	Numorphan 5mg Sup	DUP	00585661	3.2680
1799	Nupercainal 1% Oint	CGS	00623385	.0970
1800	Nyaderm 100000U/g Cr	TAR	00716871	.0782
1801	Nyaderm 100000U/g Oint	TAR	00716898	.0887
1802	Nyaderm 25000U/g Vag Cr	TAR	00716901	.0483
1803	Ocuclear 0.025% Oph Sol	SCH	00543454	.1807
1804	Ocufen 0.03% Oph Sol	ALL	00766046	4.3080
1805	Ogen 1.5mg Tab	ABB	00282685	.2618
1806	Ogen 3mg Tab	ABB	00282677	.4141
1807	Oncovin 1mg/mL Inj Sol	LIL	00611182	31.7940
1808	One Touch Strip- 50 Pk	LIF	00981087	34.8500
1809	One-Alpha 0.25mcg Cap	LEO	00474517	.3931
1810	One-Alpha 0.2mcg/mL Oral Sol	LEO	00759546	.4495
1811	One-Alpha 1mcg Cap	LEO	00474525	1.1794
1812	Opcon 0.1% Oph Sol	BAU	00750786	6.7500
1813	Ophtho-Chloram 0.5% Oph Sol	KNR	00707457	.2125
1814	Ophtho-Sulf 10% Oph Sol	KNR	00707465	.0823
1815	Ophtho-Tate 1% Oph Susp	KNR	00700401	.8138
1816	Opticrom 2% Oph Sol	FIS	00394300	1.4530
1817	Optimine 1mg Tab	SCH	00355666	.2573
1818	Orap 2mg Tab	MCN	00313815	.3015
1819	Orap 4mg Tab	MCN	00313823	.5470
1820	Orap 10mg Tab	MCN	00573817	1.1970
1821	Orbenin 250mg Cap	AYE	00002046	.1839
1822	Orbenin 500mg Cap	AYE	00002054	.3490
1823	Orbenin Inj Pd- 250mg Pk	AYE	00002151	1.5310
1824	Orbenin Inj Pd- 500mg Pk	AYE	00002178	1.7165
1825	Orbenin Inj Pd-2000mg Pk	AYE	00002186	3.8158

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1826	Orbenin 25mg/mL O/L	AYE	00002445	.0480
1827	Organidin 6mg/mL O/L	HOR	00354910	.0189
1828	Organidin 15mg Tab	HOR	00354902	.0779
1829	Orinase 500mg Tab	HOE	00012602	.1200
1830	Ortho 0.5/35 0.035mg & 0.5mg Tab-21 Pk	ORT	00317047	10.1825
1831	Ortho 0.5/35 0.035mg & 0.5mg Tab-28 Pk	ORT	00340731	10.4200
1832	Ortho 1/35 0.035mg & 1mg Tab-21 Pk	ORT	00372846	9.9753
1833	Ortho 1/35 0.035mg & 1mg Tab-28 Pk	ORT	00372838	10.4200
1834	Ortho 10/11 0.035mg & 0.5mg + 0.035mg & 1mg Tab-21 Pk	ORT	00538590	10.1825
1835	Ortho 10/11 0.035mg & 0.5mg + 0.035mg & 1mg Tab-28 Pk	ORT	00538582	10.4200
1836	Ortho 7/7/7 3 Phase Tab-21 Pk	ORT	00602957	9.6215
1837	Ortho 7/7/7 3 Phase Tab-28 Pk	ORT	00602965	10.0780
1838	Ortho-Novum 0.5 0.1mg & 0.5mg Tab-21 Pk	ORT	00022632	11.2925
1839	Ortho-Novum 1/50 0.05mg & 1mg Tab-21 Pk	ORT	00022608	9.9753
1840	Ortho-Novum 1/50 0.05mg & 1mg Tab-28 Pk	ORT	00340758	10.4200
1841	Ortho-Novum 1/80 0.08mg & 1mg Tab-21 Pk	ORT	00022659	11.2925
1842	Ortho-Novum 2 0.1mg & 2mg Tab-21 Pk	ORT	00022640	11.2925
1843	Orudis 50mg Cap	RPP	00336440	.3242
1844	Orudis 100mg Sup	RPP	00499544	1.4407
1845	Orudis E- 50 50mg Ent Tab	RPP	00566888	.3242
1846	Orudis E-100 100mg Ent Tab	RPP	00663735	.6485
1847	Orudis SR-200 200mg LA Tab	RPP	00817201	1.3652
1848	Os-Cal 250 Eq to 250mg Elemental Calcium Tab	AYE	00541915	.0786
1849	Os-cal 500 Eq to 500mg Elemental Calcium Tab	AYE	00541907	.1004
1850	Ostoforte 50000IU Cap	FRS	00009830	.1894
1851	Ovral 0.05mg & 0.25mg Tab-21 Pk	WYE	00034207	11.2500
1852	Ovral 0.05mg & 0.25mg Tab-28 Pk	WYE	00340766	11.2500
1853	Ovulen 0.5 0.1mg & 0.5mg Tab-21 Pk	SEA	00028681	15.0360
1854	Oxazepam 10mg Tab	DTC	00483893	.0100
1855	Oxazepam 15mg Tab	DTC	00483915	.0105
1856	Oxazepam 30mg Tab	DTC	00483907	.0142
1857	Oxsoralen 10mg Cap	ICN	00007269	.5319
1858	Oxycocet 5mg & 325mg Tab	TCH	00608165	.1395
1859	Oxycodan 5mg & 325mg Tab	TCH	00608157	.1695
1860	Oxyderm 5% Lot	ICN	00374326	.1138
1861	Oxyderm 10% Lot	ICN	00432938	.1377
1862	Oxyderm 20% Lot	ICN	00374318	.1778
1863	PABA Tan 8% & 5% Lot (21 SPF)	AYE	00645826	.0369
1864	PCE Dispertab 333mg Tab	ABB	00769991	.4884
1865	PMS-Dimenhydrinate 50mg Tab	PMS	00586331	.0460
1866	PMS-Docusate Calcium 240mg Cap	PMS	00664553	7.1000
1867	PMS-Docusate Sodium 100mg Cap	PMS	00703494	9.0000
1868	PMS-Docusate Sodium Syrup 4mg/mL O/L	PMS	00703508	12.3000
1869	PMS-Dopazide-15 250mg & 15mg Tab	PMS	00584967	.0715
1870	PMS-Dopazide-25 250mg & 25mg Tab	PMS	00584975	.0739
1871	PMS-Lactulose 667mg/mL O/L	PMS	00703486	.0276
1872	PMS-Metronidazole 250mg Tab	PMS	00584339	.0294
1873	PMS-Procyclidine 2.5mg Tab	PMS	00649392	.0264
1874	PMS-Procyclidine 5mg Tab	PMS	00587354	.0250
1875	PMS-Promethazine 2mg/mL O/L	PMS	00583979	.0180
1876	PMS-Propranolol 10mg Tab	PMS	00582255	.0202
1877	PMS-Propranolol 40mg Tab	PMS	00582263	.0366
1878	PMS-Propranolol 80mg Tab	PMS	00582271	.0617
1879	PMS-Propranolol 120mg Tab	PMS	00582298	.1176
1880	PMS-Sulfasalazine 500mg Tab	PMS	00598461	.1001
1881	PMS-Sulfasalazine -E.C. 500mg Ent Tab	PMS	00598488	.1378
1882	PMS-Theophylline 5.3mg/mL O/L	PMS	00575151	.0092
1883	PMS-Thioridazine 10mg Tab	PMS	00575119	.0204
1884	PMS-Thioridazine 25mg Tab	PMS	00575127	.0347
1885	PMS-Thioridazine 50mg Tab	PMS	00575135	.0663
1886	PMS-Thioridazine 100mg Tab	PMS	00575143	.1226

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
1887	PVF 500 60mg/mL O/L	FRS	00248835	.0742
1888	PVF-K 500 300mg Tab	FRS	00248843	.1933
1889	Palafer 300mg Cap	BEE	00446483	10.9000
1890	Palafer 60mg/mL O/L	BEE	00437018	.0778
1891	Palafer Pediatric Drops 60mg/mL O/L	BEE	00590630	.1227
1892	Palaron 21mg/mL O/L	FIS	00379603	.0447
1893	Panadol 325mg Tab	STP	00522511	.0410
1894	Panadol Extra Strength 500mg Tab	STP	00524891	.0597
1895	Pancrease 4000 & 20000 & 25000USP U Ent Microsph Cap	MCN	00591548	.3180
1896	Pancrease MT4 4000 & 12000 & 12000USP U Ent Microsph Cap	MCN	00789445	.3185
1897	Panectyl 2.5mg Tab	RPP	00025771	.1976
1898	Panectyl 5mg Tab	RPP	00025798	.2342
1899	Panoxyl 5% Gel	STI	00263702	.1092
1900	Panoxyl 10% Gel	STI	00263699	.1366
1901	Panoxyl 15% Gel	STI	00403571	.1616
1902	Panoxyl 20% Gel	STI	00373036	.1740
1903	Paraldehyde Inj Sol-5mL Pk	GLA	00012149	1.6184
1904	Pardec O/L	PDA	00156493	12.4000
1905	Parfenac 5% Cr	LED	00695874	.2318
1906	Parfenac 5% Oint	LED	00695882	.2318
1907	Parlodel 5mg Cap	SAN	00568643	1.5040
1908	Parlodel 2.5mg Tab	SAN	00371033	.8670
1909	Parnate 10mg Tab	SKF	00027111	.3212
1910	Parsitan 50mg Tab	RPP	00025550	.1819
1911	Pedialyte Flavored O/L	ABB	00981095	.0064
1912	Pedialyte Regular O/L	ABB	00630365	.0064
1913	Pediazole 40mg & 120mg/mL O/L	ABB	00583405	.0969
1914	PegLyte Pd 1 Kit	PMS	00777838	13.3500
1915	PegLyte Sol 1L Pk	PMS	00777846	4.8100
1916	Pen-Vee 60mg/mL O/L	WYE	00034045	.0411
1917	Penbritin 250mg Cap	AYE	00002003	.1500
1918	Penbritin 500mg Cap	AYE	00002011	.2999
1919	Penbritin Inj Pd- 500mg Pk	AYE	00002119	1.6300
1920	Penbritin Inj Pd-1000mg Pk	AYE	00002127	2.3000
1921	Penbritin 25mg/mL O/L	AYE	00002410	.0326
1922	Penbritin 50mg/mL O/L	AYE	00002429	.0611
1923	Penglobe 400mg Tab	AST	00627127	.4578
1924	Penglobe 800mg Tab	AST	00627135	.9345
1925	Penicillin G (Pot) Inj Pd- 1000000IU Pk	AYE	00002208	1.4736
1926	Penicillin G (Pot) Inj Pd- 5000000IU Pk	AYE	00002216	2.8619
1927	Pentamycetin 0.25% Oph Sol	BER	00704598	.5040
1928	Pepcid 20mg Tab	MSD	00710121	.8838
1929	Pepcid 40mg Tab	MSD	00710113	1.5909
1930	Peptol 200mg Tab	HOR	00546232	.0819
1931	Peptol 300mg Tab	HOR	00546240	.0960
1932	Peptol 400mg Tab	HOR	00568449	.1510
1933	Peptol 600mg Tab	HOR	00584282	.1921
1934	Peptol 800mg Tab	HOR	00618616	.2811
1935	Percocet 5mg & 325mg Tab	DUP	00580201	.3496
1936	Percodan 5mg & 325mg Tab	DUP	00580236	.4061
1937	Periactin 0.4mg/mL O/L	MSD	00016314	.0354
1938	Periactin 4mg Tab	MSD	00016454	.1506
1939	Peridol 2mg/mL O/L	TCH	00552429	.1372
1940	Peridol 0.5mg Tab	TCH	00552135	.0466
1941	Peridol 1mg Tab	TCH	00552143	.0753
1942	Peritrate 10mg Tab	PDA	00476595	.1138
1943	Peritrate 20mg Tab	PDA	00476609	.1533
1944	Peritrate Forte 80mg Tab	PDA	00476579	.2723
1945	Permitil 5mg Tab	SCH	00504459	.2318
1946	Perphenazine 2mg Tab	DTC	00456039	.0159
1947	Perphenazine 4mg Tab	DTC	00456047	.0170

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1948	Perphenazine 8mg Tab	DTC	00456055	.0201
1949	Perphenazine 16mg Tab	DTC	00481920	.0289
1950	Pertofrane 25mg Tab	GEI	00010448	.3616
1951	Phenazo 100mg Tab	ICN	00271489	.1129
1952	Phenazo 200mg Tab	ICN	00454583	.1564
1953	Phenergan 50mg/2mL Inj Sol-2mL Pk	RPP	00025046	1.1730
1954	Phenergan 2mg/mL O/L	RPP	00025429	.0222
1955	Phenergan 10mg Tab	RPP	00025712	.0838
1956	Phenergan 25mg Tab	RPP	00213896	.1053
1957	Phenobarbital 4mg/mL O/L	DTC	00588180	.0142
1958	Phenobarbital 4mg/mL O/L	SAN	00604585	.0180
1959	Phenobarbital 15mg Tab	PDA	00023795	.0054
1960	Phenobarbital 15mg Tab	DTC	00093505	.0055
1961	Phenobarbital 15mg Tab	SAN	00604542	.0091
1962	Phenobarbital 30mg Tab	PDA	00023809	.0059
1963	Phenobarbital 30mg Tab	DTC	00093521	.0060
1964	Phenobarbital 30mg Tab	SAN	00604550	.0102
1965	Phenobarbital 60mg Tab	PDA	00023817	.0136
1966	Phenobarbital 60mg Tab	DTC	00093556	.0137
1967	Phenobarbital 100mg Tab	DTC	00093564	.0185
1968	Phenobarbital 100mg Tab	SAN	00604577	.0229
1969	Phenobarbital-ICN 15mg Tab	ICN	00271276	.0083
1970	Phenobarbital-ICN 30mg Tab	ICN	00293903	.0106
1971	Phenobarbital-ICN 60mg Tab	ICN	00320714	.0143
1972	Phenobarbital-ICN 100mg Tab	ICN	00344036	.0482
1973	Phenylbutazone 100mg Tab	DTC	00093041	.0132
1974	PhisoHex 3% Top Emuls	WIN	00205389	.0428
1975	Phospholine Iodide 0.06% Oph Sol	AYE	00052817	3.4818
1976	Phospholine Iodide 0.125% Oph Sol	AYE	00002313	3.9944
1977	Phospholine Iodide 0.25% Oph Sol	AYE	00002348	4.5233
1978	Photoplex 7% & 3% Lot	HER	00781215	.0729
1979	Phyllocontin 225mg LA Tab	PFR	00491179	.1865
1980	Phyllocontin-350 350mg LA Tab	PFR	00593230	.2379
1981	Pilopine HS 4% Oph Gel	ALC	00575240	2.3900
1982	Piportil L4 25mg/mL Inj Sol-1mL Pk	RPP	00427918	11.6433
1983	Piportil L4 50mg/mL Inj Sol-1mL Pk	RPP	00990507	19.7333
1984	Piportil L4 100mg/2mL Inj Sol-2mL Pk	RPP	00427926	37.5100
1985	Plaquenil 200mg Tab	WIN	00033669	.3798
1986	Polaramine 0.4mg/mL O/L	SCH	00225533	.0304
1987	Polaramine 2mg Tab	SCH	00028207	.1146
1988	Poly-Vi-Sol Ped O/L	MJO	00647578	16.8500
1989	Polysporin 10000U & 0.025mg/mL Oph/Ot Sol	BWE	00035343	.3990
1990	Polysporin 10000U & 500U/g Oph Oint-3.5g Pk	BWE	00299219	3.4200
1991	Polytar 1% Shampoo	STI	00249866	8.7000
1992	Pondocillin 35mg/mL O/L	LEO	00582239	.0606
1993	Pondocillin 500mg Tab	LEO	00582247	.6315
1994	Ponstan 250mg Cap	PDA	00155225	.5037
1995	Potassium Chloride 20mEq/10mL Inj Sol-10mL Pk	AST	00624756	.5162
1996	Potassium-Rougier 1.33mEq/mL O/L	ROG	00026700	.0196
1997	Potassium-Sandoz 12mEq Eff Tab	SAN	00027596	.2480
1998	Pred Forte 1% Oph Susp	ALL	00301175	1.4150
1999	Pred Mild 0.12% Oph Susp	ALL	00299405	1.2200
2000	Prednisone 5mg Tab	DTC	00093629	.0103
2001	Prednisone 5mg Tab	KNR	00610623	.0103
2002	Prefrin 0.12% Oph Sol	ALL	00395161	.3456
2003	Premarin 0.3mg Tab	AYE	00002569	.0787
2004	Premarin 0.625mg Tab	AYE	00002577	.1163
2005	Premarin 1.25mg Tab	AYE	00002585	.1929
2006	Premarin 2.5mg Tab	AYE	00002593	.4123
2007	Premarin 0.625mg/g Vag Cr	AYE	00002089	.3307
2008	Prepulsid 5mg Tab	JAN	00836311	.2743

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
2009	Presun 15 Creamy 8% & 3.3% Lot	WSD	00539856	.0434
2010	Presun 29 7% & 6% & 5% Cr	WSD	00723932	.0524
2011	Pro-Air 10mcg/met dose AeroInh-200dose Pk	PDA	00846414	14.9200
2012	Pro-Banthine 7.5mg Tab	SEA	00028584	.1806
2013	Pro-Banthine 15mg Tab	SEA	00028592	.2000
2014	Procan SR.250mg LA Tab	PDA	00638692	.2564
2015	Procan SR 500mg LA Tab	PDA	00638676	.4713
2016	Procan SR 750mg LA Tab	PDA	00638684	.6363
2017	Procyclid 0.5mg/mL O/L	ICN	00485012	.0318
2018	Procyclid 5mg Tab	ICN	00306290	.0250
2019	Procytox Inj Pd- 200mg Pk	HOR	00013544	5.6500
2020	Procytox Inj Pd-1000mg Pk	HOR	00013552	13.1800
2021	Procytox 25mg Tab	HOR	00262676	.3435
2022	Procytox 50mg Tab	HOR	00013749	.4534
2023	Prodiem Plain Gran	ROR	00536695	10.4500
2024	Proloid 30mg Tab	PDA	00483583	.0483
2025	Proloid 60mg Tab	PDA	00483540	.0544
2026	Proloid 125mg Tab	PDA	00483559	.0763
2027	Prolopa 50-12.5 50mg & 12.5mg Cap	HLR	00522597	.2460
2028	Prolopa 100-25 100mg & 25mg Cap	HLR	00386464	.4045
2029	Prolopa 200-50 200mg & 50mg Cap	HLR	00386472	.6795
2030	Proloprim 100mg Tab	BWE	00675229	.2500
2031	Proloprim 200mg Tab	BWE	00677590	.5130
2032	Pronestyl 250mg Cap	SQU	00029076	.2184
2033	Pronestyl 375mg Cap	SQU	00296031	.3265
2034	Pronestyl 500mg Cap	SQU	00353523	.4350
2035	Pronestyl 100mg/10mL Inj Sol-10mL Pk	SQU	00029181	9.4000
2036	Pronestyl SR 500mg LA Tab	SQU	00639885	.4380
2037	Propaderm 0.025% Cr	GLA	00002712	.3884
2038	Propaderm 0.025% Lot	GLA	00270466	.3511
2039	Propaderm 0.025% Oint	GLA	00003697	.3884
2040	Propanthel 15mg Tab	ICN	00294837	.0379
2041	Propine 0.1% Oph Sol	ALL	00529117	1.6120
2042	Propranolol 10mg Tab	DTC	00523402	.0203
2043	Propranolol 40mg Tab	DTC	00523399	.0366
2044	Propranolol 80mg Tab	DTC	00523380	.0617
2045	Propyl-Thyracil 50mg Tab	FRS	00010200	.1082
2046	Propyl-Thyracil 100mg Tab	FRS	00010219	.1693
2047	Prostigmin 0.5mg/mL Inj Sol-1mL Pk	ICN	00869910	.8487
2048	Prostigmin 15mg Tab	ICN	00869945	.1390
2049	Provera 5mg Tab	UPJ	00030937	.2395
2050	Provera 10mg Tab	UPJ	00729973	.4835
2051	Provera 100mg Tab	UPJ	00030945	1.1157
2052	Proviiodine 10% Top Sol	ROG	00172944	.0065
2053	Proviiodine 10% Vag Gel	ROG	00026611	.0670
2054	Proviiodine 10% Vag Sol	ROG	00252824	.0267
2055	Prozac 20mg Cap	LIL	00636622	1.4875
2056	Pulmicort 200mcg/met dose Aero Inh-100dosePk	AST	00634549	31.0000
2057	Pulmicort Spacer Inhaler 200mcg/met dose Inh-100dosePk	AST	00814091	31.0000
2058	Pulmicort Turbuhaler 100mcg/met dose Pd Inh 200 dose Pk	AST	00852074	29.5500
2059	Pulmicort Turbuhaler 200mcg/met dose Pd Inh 200 dose Pk	AST	00851752	59.1000
2060	Purinethol 50mg Tab	BWE	00004723	1.7120
2061	Purinol 100mg Tab	HOR	00415731	.0178
2062	Purinol 200mg Tab	HOR	00415758	.0352
2063	Purinol 300mg Tab	HOR	00415766	.0433
2064	Pyribenzamine 50mg Tab	CGS	00623504	.1167
2065	Pyridium 100mg Tab	PDA	00476714	.1133
2066	Pyridium 200mg Tab	PDA	00476722	.1570
2067	Questran 440mg/g Oral Pd-378g Pk	BRI	00634093	30.4500
2068	Questran 440mg/g Oral Pd- 9g Pouch Pk	BRI	00464880	1.0150
2069	Quibron-T 10mg/mL O/L	BRI	00547115	.0362

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
2070	Quibron-T/SR 300mg LA Tab	BRI	00556742	.2405
2071	Quinaglute-Duratabs 324mg LA Tab	BER	00704644	.7254
2072	Quinate 325mg Tab	ROG	00311731	.3850
2073	Quinidex Extentabs 300mg LA Tab	ROB	00346837	.3756
2074	Quinidine 200mg Tab	BWE	00004782	.1512
2075	Quinidine 200mg Tab	PDA	00023868	.2609
2076	Quinidine 200mg Tab	ROG	00026883	.0670
2077	Quinidine 200mg Tab	DTC	00094412	.0658
2078	Quinine 300mg Cap	DTC	00093750	.1401
2079	Quinine Sulfate 200mg Cap	DTC	00093742	.0889
2080	Quinine Sulfate 200mg Cap	SDR	00178993	.0916
2081	Quinine Sulfate 300mg Cap	SDR	00179000	.1443
2082	R & C Shampoo 0.3% & 3% & 1.2% Top Sol	RCA	00575372	12.2500
2083	Radiostol 50000IU Cap	GLA	00002690	.2799
2084	Ranitidine 150mg Tab	KNR	00828823	.7518
2085	Ranitidine 300mg Tab	KNR	00828688	1.4178
2086	Rapolyte 4g & 0.3g & 0.7g & 0.5g Oral Pd-1 Sach Pk	RIC	00540781	.4500
2087	Reflocheck Strip-100 Pk	BOM	00980706	54.7000
2088	Reglan 10mg/2mL Inj Sol-2mL Pk	ROB	00386006	1.3818
2089	Reglan 1mg/mL O/L	ROB	00386022	.0292
2090	Reglan 5mg Tab	ROB	00631671	.0586
2091	Reglan 10mg Tab	ROB	00386014	.0615
2092	Regulex 100mg Cap	AYE	00472166	11.2000
2093	Reserpine 0.1mg Tab	DTC	00093211	.0295
2094	Reserpine 0.25mg Tab	DTC	00093238	.0110
2095	Restoril 15mg Cap	SAN	00604453	.1740
2096	Restoril 30mg Cap	SAN	00604461	.2080
2097	Rheumatrex 2.5mg Tab	LED	00874132	.9856
2098	Rhinalar 0.025% Nas Sp-25mL Pk	SYN	00421456	18.7400
2099	Rhinocort 50mcg/met dose Nas Aero 200dosePk	AST	00636460	10.2500
2100	Rhodis 50mg Cap	RHP	00761664	.1966
2101	Rhodis 100mg Sup	RHP	00761699	1.4427
2102	Rhodis-EC 50mg Ent Tab	RHP	00761672	.1966
2103	Rhodis-EC 100mg Ent Tab	RHP	00761680	.3931
2104	Rhotrimine 75mg Cap	RHP	00761656	.7404
2105	Rhotrimine 12.5mg Tab	RHP	00761605	.0992
2106	Rhotrimine 25mg Tab	RHP	00761613	.1258
2107	Rhotrimine 50mg Tab	RHP	00761621	.2423
2108	Rhotrimine 100mg Tab	RHP	00761648	.4406
2109	Ridaura 3mg Cap	SKF	00600733	1.2093
2110	Rifadin 150mg Cap	MER	00580376	.6038
2111	Rifadin 300mg Cap	MER	00580384	.9503
2112	Rimactane 150mg Cap	CIB	00210471	.7528
2113	Rimactane 300mg Cap	CIB	00210463	1.1843
2114	Riopan 480mg Chew Tab	AYE	00571229	.0543
2115	Riopan 96mg/mL O/L	AYE	00571202	.0088
2116	Riopan Extra Strength 1080mg/mL O/L	AYE	00640476	.0128
2117	Ritalin 10mg Tab	CIB	00005606	.2422
2118	Ritalin SR 20mg LA Tab	CIB	00632775	.4611
2119	Rivotril 0.5mg Tab	HLR	00382825	.1787
2120	Rivotril 2mg Tab	HLR	00382841	.3075
2121	Robidex 3mg/mL O/L	ROB	00454389	.0263
2122	Robidone 1mg/mL O/L	ROB	00316970	.0401
2123	Robidrine 6mg/mL O/L	ROB	00425516	.0253
2124	Robidrine 60mg Tab	ROB	00342726	.0743
2125	Robigesic 16mg/mL O/L	ROB	00658049	.0294
2126	Robigesic 325mg Tab	ROB	00330876	.0438
2127	Robinul 0.2mg/mL Inj Sol-1mL Pk	ROB	00026425	1.5720
2128	Robinul 1mg Tab	ROB	00026514	.0978
2129	Robinul Forte 2mg Tab	ROB	00026522	.1624
2130	Robitussin 20mg/mL O/L	ROB	00026468	.0162

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
2131	Rocaltrol 0.25mcg Cap	HLR	00481823	.8515
2132	Rocaltrol 0.5mcg Cap	HLR	00481815	1.3540
2133	Rocephin 0.25g/Vial Inj Pd-1 Vial Pk	HLR	00657387	10.7500
2134	Rocephin 1g/Vial Inj Pd-1 Vial Pk	HLR	00657417	34.0000
2135	Rocephin 2g/Vial Inj Pd-1 Vial Pk	HLR	00657409	67.0000
2136	Rofact 150mg Cap	ICN	00393444	.6342
2137	Rofact 300mg Cap	ICN	00343617	.9940
2138	Rounox 325mg Tab	ROG	00277193	.0240
2139	Rouphylline 10mg/mL O/L	ROG	00405310	.0110
2140	Rouphylline 200mg Tab	ROG	00346071	.0245
2141	Roychlor 1.33mEq/mL O/L	ROY	00485284	.0139
2142	Rubramin 1mg/mL Inj Sol	SQU	00029165	13.6000
2143	Rynacrom 2% Nas Sol-26mL Pk	FIS	00605255	20.9200
2144	Rynacrom 10mg/Cart Pd Inh	FIS	00328944	.2738
2145	Rythmodan 100mg Cap	ROU	00382876	.2150
2146	Rythmodan 150mg Cap	ROU	00439363	.3050
2147	Rythmodan L.A. 250mg LA Tab	ROU	00619760	.6735
2148	Rythmol 150mg Tab	KNL	00603708	.6420
2149	Rythmol 300mg Tab	KNL	00603716	1.1320
2150	S.A.S. 500 500mg Tab	ICN	00263869	.0998
2151	S.A.S. Enteric 500 500mg Ent Tab	ICN	00445126	.1373
2152	Sal-Adult 650mg Sup	BEE	00451746	.6833
2153	Sal-Infant 150mg Sup	BEE	00451738	.5375
2154	Salazopyrin 500mg Ent Tab	PHD	00158526	.2403
2155	Salazopyrin 500mg Tab	PHD	00024856	.1580
2156	Salazopyrin 3g/100mL Enema-100mL Pk	PHD	00544442	6.1000
2157	Salbutamol 2mg Tab	EVM	00637793	.0650
2158	Salbutamol 4mg Tab	EVM	00637807	.1075
2159	Salbutamol Inhaler Inh-200 dose Pk	KNR	00851841	8.4000
2160	Salbutamol Respirator Solution 5mg/mL Inh Sol-10mL Pk	KNR	00860808	8.3055
2161	Salofalk 500mg Sup	INF	00784508	1.0620
2162	Salofalk 4g/60g Rect Susp-60g Pk	INF	00709034	5.4100
2163	Sandomigran 0.5mg Tab	SAN	00329320	.3354
2164	Sandomigran DS 1mg Tab	SAN	00511552	.5725
2165	Sans-Acne 2% & 4% Top Sol	ALC	00824127	.1325
2166	Sansert 2mg Tab	SAN	00027499	.6370
2167	Sebcur 4% Shampoo	DPT	00666106	.0308
2168	Sebcur/T 10% & 4% Shampoo	DPT	00666114	7.7000
2169	Sebutone 0.5% & 2% & 2% Top Sol	WSD	00232890	5.3500
2170	Seconal 50mg Cap	LIL	00015261	.0883
2171	Seconal 100mg Cap	LIL	00015288	.1048
2172	Sectral 100mg Tab	RPP	00726559	.2538
2173	Sectral 200mg Tab	RPP	00726567	.3798
2174	Sectral 400mg Tab	RPP	00771333	.7558
2175	Seldane 6mg/mL Susp	MER	00614394	.0556
2176	Seldane 60mg Tab	MER	00590908	.3165
2177	Selexid 200mg Tab	LEO	00657212	.8153
2178	Selsun 2.5% Lot	ABB	00243000	.0325
2179	Semilente Insulin 1000U/10mL Inj Susp	NOO	00612251	18.7000
2180	Senokot 15mg/3g Gran	PFR	00026042	13.4000
2181	Senokot 1.7mg/mL O/L	PFR	00367729	13.7000
2182	Senokot 30mg Sup	PFR	00026107	5.8000
2183	Senokot 8.6mg Tab	PFR	00026158	11.6000
2184	Septra 40mg & 8mg/mL O/L	BWE	00270644	.0210
2185	Septra 400mg & 80mg Tab	BWE	00270636	.1405
2186	Septra DS 800mg & 160mg Tab	BWE	00368040	.2522
2187	Serax 10mg Tab	WYE	00295701	.0324
2188	Serax 15mg Tab	WYE	00295698	.0405
2189	Serax 30mg Tab	WYE	00231363	.0587
2190	Serentil 10mg Tab	SAN	00027448	.2905
2191	Serentil 25mg Tab	SAN	00027456	.3479

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
2192	Serentil 50mg Tab	SAN	00027464	.4816
2193	Serophene 50mg Tab	SRO	00893722	3.9140
2194	Serpasil 0.25mg Tab	CIB	00005665	.1078
2195	Sinemet 100mg & 10mg Tab	MSD	00355658	.3450
2196	Sinemet 100mg & 25mg Tab	MSD	00513997	.5088
2197	Sinemet 250mg & 25mg Tab	MSD	00328219	.5453
2198	Sinequan 10mg Cap	PFI	00024325	.2300
2199	Sinequan 25mg Cap	PFI	00024333	.2821
2200	Sinequan 50mg Cap	PFI	00024341	.5234
2201	Sinequan 75mg Cap	PFI	00400750	.7515
2202	Sinequan 100mg Cap	PFI	00326925	.9900
2203	Sinequan 150mg Cap	PFI	00584274	1.3640
2204	Sintrom 1mg Tab	GEI	00010383	.1187
2205	Sintrom 4mg Tab	GEI	00010391	.3732
2206	Slo-Bid 50mg LA Cap	ROR	00778893	.1650
2207	Slo-Bid 100mg LA Cap	ROR	00600024	.1850
2208	Slo-Bid 200mg LA Cap	ROR	00600032	.2145
2209	Slo-Bid 300mg LA Cap	ROR	00600040	.2575
2210	Slo-Pot 600 8mEq LA Tab	ICN	00554308	.0170
2211	Slow-K 8mEq LA Tab	CIB	00074225	.0651
2212	Slow-Trasicor 80mg LA Tab	CIB	00534579	.3758
2213	Slow-Trasicor 160mg LA Tab	CIB	00534587	.7517
2214	Soda Mint 300mg Tab	SDR	00179884	3.0000
2215	Sodium Bicarbonate 300mg Tab	DTC	00093068	3.0000
2216	Sodium Bicarbonate 600mg Tab	DTC	00221619	4.5000
2217	Sodium Chloride (Plastic Vial) 0.9% Inj Sol-10mL Pk	AST	00624748	.5162
2218	Sofracort 5mg & 50mcg & 0.5mg/mL Ot Sol	ROU	00228052	1.3437
2219	Soframycin 0.5% Oph Oint-5g Pk	ROU	00026964	5.0000
2220	Soframycin 0.5% Oph Sol	ROU	00026921	.9125
2221	Solazine 5mg Tab	HOR	00013919	.0787
2222	Solazine 10mg Tab	HOR	00013927	.0942
2223	Solganal 50mg/mL Inj Sol 10mL Pk	SCH	00855774	10.0000
2224	Solium 10mg Cap	HOR	00013471	.0600
2225	Solium 25mg Cap	HOR	00013498	.0959
2226	Solu-Cortef Inj Pd- 100mg Pk	UPJ	00030600	3.0800
2227	Solu-Cortef Inj Pd- 250mg Pk	UPJ	00030619	5.3500
2228	Solu-Cortef Inj Pd- 500mg Pk	UPJ	00030627	7.8800
2229	Solu-Cortef Inj Pd-1000mg Pk	UPJ	00030635	13.3100
2230	Solu-Medrol Inj Pd- 40mg Pk	UPJ	00030643	4.3300
2231	Solu-Medrol Inj Pd-125mg Pk	UPJ	00030651	10.2800
2232	Solu-Medrol Inj Pd-500mg Pk	UPJ	00030678	25.7600
2233	Soluver 20% Top Sol	DPT	00690333	.3333
2234	Somnol 15mg Tab	HOR	00483826	.0630
2235	Somnol 30mg Tab	HOR	00483818	.0708
2236	Somophyllin-12 50mg LA Cap	FIS	00551422	.1639
2237	Somophyllin-12 75mg LA Cap	FIS	00692751	.1811
2238	Somophyllin-12 100mg LA Cap	FIS	00551430	.1828
2239	Somophyllin-12 200mg LA Cap	FIS	00609013	.2115
2240	Somophyllin-12 250mg LA Cap	FIS	00551414	.2342
2241	Somophyllin-12 300mg LA Cap	FIS	00609021	.2543
2242	Somophyllin-12 350mg LA Cap	FIS	00692778	.2829
2243	Sotacor 160mg Tab	BRI	00483923	.9560
2244	Spersacarpine 1% Oph Sol	DIS	00725404	.2235
2245	Spersacarpine 2% Oph Sol	DIS	00725412	.2606
2246	Spersacarpine 4% Oph Sol	DIS	00725439	.2970
2247	Spersadex 0.1% Oph/Ot Sol	DIS	00724149	1.1000
2248	Statex 1mg/mL O/L	PMS	00591467	.0242
2249	Statex 5mg/mL O/L	PMS	00591475	.0771
2250	Statex 20mg/mL Oral Drops	PMS	00621935	.3700
2251	Statex 5mg Tab	PMS	00594652	.1155
2252	Statex 10mg Tab	PMS	00594644	.1705

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
2253	Statex 25mg Tab	PMS	00594636	.2205
2254	Statex 50mg Tab	PMS	00675962	.3360
2255	Staticin 1.5% Lot	WSD	00512591	.1432
2256	Stelazine 1mg/mL Inj Sol-1mL Pk	SKF	00026999	1.8234
2257	Stelazine 10mg/mL O/L	SKF	00027022	.2965
2258	Stelazine 1mg Tab	SKF	00027146	.1356
2259	Stelazine 2mg Tab	SKF	00027154	.1779
2260	Stelazine 5mg Tab	SKF	00027162	.2355
2261	Stelazine 10mg Tab	SKF	00027170	.2824
2262	Stemetil 10mg/2mL Inj Sol-2mL Pk	RPP	00578185	1.6710
2263	Stemetil 1mg/mL O/L	RPP	00025216	.0488
2264	Stemetil 10mg Sup	RPP	00025364	1.0980
2265	Stemetil 5mg Tab	RPP	00025682	.1686
2266	Stemetil 10mg Tab	RPP	00025690	.2059
2267	Sterile Water Inj Sol-10mL Pk	AST	00624721	.5012
2268	Stieva-A 0.01% Cr	STI	00657204	.3560
2269	Stieva-A 0.025% Cr	STI	00578576	.3560
2270	Stieva-A 0.05% Cr	STI	00518182	.3560
2271	Stieva-A 0.01% Gel	STI	00587958	.3560
2272	Stieva-A 0.025% Gel	STI	00587966	.3560
2273	Stieva-A 0.025% Sol	STI	00578568	.1780
2274	Stieva-A 0.05% Top Sol	STI	00518174	.1780
2275	Stilboestrol 0.5mg Tab	GLA	00003352	.2499
2276	Stilboestrol 1mg Tab	GLA	00003360	.2227
2277	Stoxil 0.5% Oph Oint-4g Pk	SKF	00027200	17.4900
2278	Sudafed 6mg/mL O/L	BWE	00004561	.0250
2279	Sudafed 60mg Tab	BWE	00004766	.0880
2280	Sulamyd 10% Oph Oint-3.5g Pk	SCH	00028347	3.7100
2281	Sulamyd 10% Oph Sol	SCH	00028053	.0787
2282	Sulamyd 30% Oph Sol	SCH	00028061	.3213
2283	Sulcrate 500mg/5mL Oral Sol	NRD	00836370	.0472
2284	Sulcrate 1g Tab	NRD	00506346	.4410
2285	Sulfamethoxazole & Trimethoprim 400mg & 80mg Tab	DTC	00516759	.0831
2286	Sulfamethoxazole & Trimethoprim DS 800mg & 160mg Tab	DTC	00516767	.1573
2287	Sulfasalazine 500mg Ent Tab	KNR	00685925	.1379
2288	Sulfasalazine 500mg Tab	KNR	00685933	.1003
2289	Sulfated Insulin 1000U/10mL Inj Susp	NOO	00648094	82.3000
2290	Sulfinpyrazone 100mg Tab	DTC	00481955	.0398
2291	Sulfinpyrazone 200mg Tab	DTC	00481947	.0664
2292	Sultrin Vag Cr-App	ORT	00153605	.2351
2293	Supasa 160mg Sup	NRD	00377961	.5785
2294	Supasa 320mg Sup	NRD	00315117	.6550
2295	Supasa 640mg Sup	NRD	00315133	.7741
2296	Surfak 240mg Cap	HOE	00012491	9.7000
2297	Surgam 200mg Tab	ROU	00589926	.5235
2298	Surgam 300mg Tab	ROU	00589934	.6250
2299	Surmontil 75mg Cap	RPP	00442437	.7386
2300	Surmontil 12.5mg Tab	RPP	00025828	.2128
2301	Surmontil 25mg Tab	RPP	00025836	.2699
2302	Surmontil 50mg Tab	RPP	00025844	.5196
2303	Surmontil 100mg Tab	RPP	00025852	.9448
2304	Symmetrel 100mg Cap	DUP	00589012	.6634
2305	Symmetrel 10mg/mL O/L	DUP	00589004	.1121
2306	Syn-Captopril 25mg Tab	SYP	00851833	.4745
2307	Syn-Captopril 50mg Tab	SYP	00851647	.8840
2308	Syn-Captopril 100mg Tab	SYP	00851655	1.6445
2309	Syn-Diltiazem 30mg Tab	SYP	00888524	.2861
2310	Syn-Diltiazem 60mg Tab	SYP	00888532	.5021
2311	Syn-Nadolol 40mg Tab	SYP	00851663	.3410
2312	Syn-Nadolol 80mg Tab	SYP	00851671	.4624
2313	Syn-Nadolol 160mg Tab	SYP	00851698	.8694

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
2314	Syn-Pindolol 5mg Tab	SYP	00818615	.2880
2315	Syn-Pindolol 10mg Tab	SYP	00818593	.4975
2316	Syn-Pindolol 15mg Tab	SYP	00818607	.7303
2317	Synacthen Depot 1mg/mL Inj Susp-1mL Pk	CIB	00253952	20.5800
2318	Synalar Bi-Otic 10000U & 5mg & 0.25mg/mL Ot Sol	SYN	00189499	1.6760
2319	Synalar Mild 0.01% Cr	SYN	00030414	.2907
2320	Synalar Mild 0.01% Oint	SYN	00030392	.2395
2321	Synalar Regular 0.025% Cr	SYN	00030422	.3772
2322	Synalar Regular 0.025% Oint	SYN	00030406	.3943
2323	Synalar Solution 0.01% Top Sol	SYN	00030260	.3640
2324	Synamol Mild 0.01% Emol Cr	SYN	00424927	.2395
2325	Synamol Regular 0.025% Emol Cr	SYN	00424935	.3943
2326	Synkavite 5mg Tab	HLR	00013374	.0660
2327	Synphasic 3 Phase Tab-21 Pk	SYN	00620947	9.6700
2328	Synphasic 3 Phase Tab-28 Pk	SYN	00695734	9.6700
2329	Synthroid 0.025mg Tab	FLI	00009644	.0480
2330	Synthroid 0.05mg Tab	FLI	00009652	.0360
2331	Synthroid 0.075mg Tab	FLI	00640441	.0520
2332	Synthroid 0.1 mg Tab	FLI	00009660	.0479
2333	Synthroid 0.112mg Tab	FLI	00786578	.0550
2334	Synthroid 0.125mg Tab	FLI	00640425	.0555
2335	Synthroid 0.15mg Tab	FLI	00212164	.0514
2336	Synthroid 0.175mg Tab	FLI	00786586	.0595
2337	Synthroid 0.2 mg Tab	FLI	00009687	.0548
2338	Synthroid 0.3 mg Tab	FLI	00009695	.0747
2339	Syntocinon- 5 5IU/mL Inj Sol-1mL Pk	SAN	00282316	.6820
2340	Syntocinon-10 10IU/mL Inj Sol-1mL Pk	SAN	00035998	.8350
2341	TI-Screen SPF30 7.5% & 7.5% & 6% & 5% Lot	WBP	01907689	.0600
2342	Tace 12mg Cap	MER	00017965	.5928
2343	Tagamet 60mg/mL O/L	SKF	00397482	.1656
2344	Tagamet 200mg Tab	SKF	00563560	.3538
2345	Tagamet 300mg Tab	SKF	00397474	.3948
2346	Tagamet 400mg Tab	SKF	00563579	.6356
2347	Tagamet 600mg Tab	SKF	00563587	.7500
2348	Tagamet 800mg Tab	SKF	00653411	1.2713
2349	Talwin 30mg/mL Inj Sol-1mL Pk	WIN	01904973	.7568
2350	Talwin 50mg Tab	WIN	01904965	.3114
2351	Tambocor 100mg Tab	RIK	00628220	.9450
2352	Tamofen 10mg Tab	RPP	00657360	.5435
2353	Tamofen 20mg Tab	RPP	00657379	1.0000
2354	Tamone 10mg Tab	ADI	00810444	.5250
2355	Tamone 20mg Tab	ADI	00810452	.9500
2356	Tantum 0.15% Oral Rinse	RIK	00574171	.0635
2357	Tapazole 5mg Tab	LIL	00015741	.1098
2358	Tarasan 15mg Tab	HLR	00013234	.1315
2359	Tarasan 50mg Tab	HLR	00013242	.2650
2360	Tavist 1mg Tab	ANC	00349046	.2467
2361	Tears Naturale Oph Sol	ALC	00390291	.3087
2362	Tears Naturale II 0.1% & 0.3% & 0.001% Oph Sol	ALC	00743445	.3087
2363	Tears Plus Oph Sol	ALL	00579408	.3574
2364	Tebrazid 500mg Tab	ICN	00283991	.5384
2365	Tegison 10mg Cap	HLR	00616400	1.5033
2366	Tegison 25mg Cap	HLR	00616419	2.6316
2367	Tegopen Inj Pd- 250mg Pk	BRI	00407593	1.2000
2368	Tegopen Inj Pd- 500mg Pk	BRI	00407607	1.9000
2369	Tegopen Inj Pd-2000mg Pk	BRI	00407615	3.1000
2370	Tegretol 200mg Tab	GEI	00010405	.2316
2371	Tegretol Chew Tabs 100mg Chew Tab	GEI	00369810	.1174
2372	Tegretol Chew Tabs 200mg Chew Tab	GEI	00665088	.2316
2373	Temposil 50mg Tab	LED	00014958	.4696
2374	Tempra 80mg/mL O/L	MJO	00642401	.1900

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
2375	Tenoretic 50/25 50 & 25mg Tab	ICI	00638625	.5993
2376	Tenoretic 100/25 100 & 25mg Tab	ICI	00638633	.9821
2377	Tenormin 50mg Tab	ICI	00520683	.5454
2378	Tenormin 100mg Tab	ICI	00486833	.8957
2379	Tensilon 100mg/10mL Inj Sol-10mL Pk	ICN	00855804	11.9973
2380	Terfluzine 10mg/mL O/L	ICN	00298212	.2480
2381	Terfluzine 5mg Tab	ICN	00271527	.0094
2382	Terfluzine 10mg Tab	ICN	00280399	.0157
2383	Tersa-Tar 3% Shampoo	TCD	00632309	6.4000
2384	Tersaseptic 0.5% Top Sol	TCD	00632317	.0170
2385	Tes-Tape Strip-100 Pk	LIL	00980609	7.8680
2386	Tetracyn 250mg Cap	PFI	00024422	.0205
2387	Theo-Dur 100mg LA Tab	AST	00460982	.1910
2388	Theo-Dur 200mg LA Tab	AST	00460990	.2124
2389	Theo-Dur 300mg LA Tab	AST	00461008	.2572
2390	Theo-Dur 450mg LA Tab	AST	00722065	.3230
2391	Theo-Dur Sprinkle 50mg SR Cap	AST	00713406	.1445
2392	Theo-Dur Sprinkle 75mg SR Cap	AST	00713414	.1565
2393	Theo-Dur Sprinkle 125mg SR Cap	AST	00713422	.1720
2394	Theo-Dur Sprinkle 200mg SR Cap	AST	00713430	.2255
2395	Theolair 125mg Tab	RIK	00395218	.2075
2396	Theolair 250mg Tab	RIK	00461687	.3140
2397	Theolair Alcohol Free Oral Liquid 5.3mg/mL O/L	RIK	00461709	.0184
2398	Theolair-SR 200mg LA Tab	RIK	00791652	.1325
2399	Theolair-SR 250mg LA Tab	RIK	00461695	.1980
2400	Theolair-SR 300mg LA Tab	RIK	00545732	.1545
2401	Theolair-SR 500mg LA Tab	RIK	00502014	.3500
2402	Theophylline 5.3mg/mL O/L	DES	00261203	.0053
2403	Theophylline 5.3mg/mL O/L	TCH	00532223	.0053
2404	Thio-Tepa Inj Pd-15mg Pk	LED	00237035	16.3083
2405	Thioridazine 2mg/mL O/L	SAP	00238775	.0180
2406	Thioridazine 10mg Tab	DTC	00456063	.0164
2407	Thioridazine 25mg Tab	DTC	00456071	.0308
2408	Thioridazine 50mg Tab	DTC	00456098	.0558
2409	Thioridazine 100mg Tab	DTC	00456101	.1118
2410	Thyroid 30mg Tab	PDA	00023949	.0334
2411	Thyroid 60mg Tab	PDA	00023957	.0414
2412	Thyroid 125mg Tab	PDA	00023965	.0528
2413	Ti-UVA-B 22 7.5% & 5% Moist Lot	TIC	00726788	.0462
2414	Tiamol 0.05% Emol Cr	TIC	00598933	.2271
2415	Timolide 10mg & 25mg Tab	FRS	00509353	.4051
2416	Timoptic 0.25% Oph Sol	MSD	00451193	2.4140
2417	Timoptic 0.5% Oph Sol	MSD	00451207	2.8570
2418	TobraDex 0.3% & 0.1% Oph Susp	ALC	00778907	1.9300
2419	Tobrex 0.3% Oph Oint	ALC	00614254	2.3171
2420	Tobrex 0.3% Oph Sol	ALC	00513962	1.6340
2421	Tofranil 10mg Tab	GEI	00010464	.1384
2422	Tofranil 25mg Tab	GEI	00010472	.2197
2423	Tofranil 50mg Tab	GEI	00010480	.4085
2424	Tolbutamide 500mg Tab	DTC	00093033	.0234
2425	Tolectin 200mg Tab	MCN	00364126	.3775
2426	Tolectin 600mg Tab	MCN	00632740	.7600
2427	Tolectin DS 400mg Cap	MCN	00484938	.5370
2428	Topicort 0.25% Emol Cr	HOE	00420271	.5900
2429	Topicort Mild 0.05% Emol Cr	HOE	00486450	.3450
2430	Topsyn 0.05% Gel	SYN	00281913	.4553
2431	Trancopal 200mg Tab	WIN	00033626	.2896
2432	Trandate 100mg/20mL Inj Sol-20mL Pk	GLA	00600822	16.6460
2433	Trandate 100mg Tab	GLA	00603651	.2176
2434	Trandate 200mg Tab	GLA	00603643	.3848
2435	Transderm-V 1.5mg Transderm Syst	CIB	00550094	1.6250

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
2436	Tranxene 3.75mg Cap	ABB	00264938	.1673
2437	Tranxene 7.5mg Cap	ABB	00264946	.2172
2438	Tranxene 15mg Cap	ABB	00264911	.3890
2439	Trasicor 20mg Tab	CIB	00402567	.1385
2440	Trasicor 40mg Tab	CIB	00402575	.2479
2441	Trasicor 80mg Tab	CIB	00402583	.3757
2442	Trasylol 100000KIU/10mL Inj Sol-10mL Pk	MIT	00513954	29.2068
2443	Travase 82000U/g Oint	FLI	00265381	2.5423
2444	Trental 400mg LA Tab	HOE	00586625	.5972
2445	Triadapin 10mg Cap	FIS	00842745	.1444
2446	Triadapin 25mg Cap	FIS	00842753	.1776
2447	Triadapin 50mg Cap	FIS	00842761	.2949
2448	Triadapin 75mg Cap	FIS	00842788	.5580
2449	Triadapin 100mg Cap	FIS	00842796	.7330
2450	Triadapin 150mg Cap	FIS	00842818	.9668
2451	Triaderm 0.025% Cr	TAR	00716952	.1085
2452	Triaderm 0.1% Cr	TAR	00716960	.1400
2453	Triazolam 0.125mg Tab	KNR	00614351	.1069
2454	Triazolam 0.25mg Tab	KNR	00614378	.1323
2455	Tridesilon 0.05% Cr	MIT	00521248	.4047
2456	Tridesilon 0.05% Oint	MIT	00521264	.3808
2457	Trifluoperazine 1mg Tab	DTC	00249068	.0068
2458	Trifluoperazine 2mg Tab	DTC	00249076	.0076
2459	Trifluoperazine 5mg Tab	DTC	00249084	.0108
2460	Trifluoperazine 10mg Tab	DTC	00249092	.0180
2461	Trikacide 500mg Cap	PMS	00783137	.8250
2462	Trilafon 5mg/mL Inj Sol-1mL Pk	SCH	00028002	2.3220
2463	Trilafon 0.4mg/mL O/L	SCH	00028150	.0688
2464	Trilafon 2mg Tab	SCH	00028290	.0484
2465	Trilafon 4mg Tab	SCH	00028304	.0606
2466	Trilafon 8mg Tab	SCH	00028312	.0728
2467	Trilafon 16mg Tab	SCH	00028320	.0973
2468	Trilafon Conc. 3.2mg/mL O/L	SCH	00028169	.2055
2469	Trilisate Tab	PFR	00449636	.1855
2470	Triphasil 3 Phase Tab-21 Pk	WYE	00782416	10.9000
2471	Triphasil 3 Phase Tab-28 Pk	WYE	00782424	10.9000
2472	Triptil 10mg Tab	MSD	00322741	.3405
2473	Triquilar 21 3 Phase Tab-21 Pk	BER	00707600	10.3500
2474	Triquilar 28 3 Phase Tab-28 Pk	BER	00707503	10.3500
2475	Trisyn Emol Cr	MNP	00781371	.3124
2476	Trobicin Inj Pd-2g Pk	UPJ	00210196	14.2000
2477	Tronothane 1% Cr	ABB	00000116	.2964
2478	Trosyd 1% Cr	PFI	00657395	.4500
2479	Tylenol No.2 15mg Tab	MCN	00425370	.0352
2480	Tylenol No.3 30mg Tab	MCN	00425389	.0382
2481	Tylenol No.4 300mg & 60mg Tab	MCN	00396516	.1780
2482	Tylenol with Codeine 160mg & 8mg/5mL O/L	MCN	00685143	.0740
2483	Ulone 5mg/mL O/L	RIK	00026328	.0433
2484	UltraMOP 10mg SG Cap	CDM	00646237	.4438
2485	Ultralente Insulin 1000U/10mL Inj Susp	NOO	00612243	18.7000
2486	Ultrastop 8% & 3.5% Cr	CDM	00626708	.0540
2487	Unicort 0.5% Cr	GLA	00303887	.0156
2488	Unicort 1% Cr	GLA	00303895	.0216
2489	Uniphyl 400mg LA Tab	PFR	00738875	.4260
2490	Uniphyl 600mg LA Tab	PFR	00738883	.5160
2491	Univol 40mg & 40mg/mL O/L	HOR	00013625	.0073
2492	Urecholine 5mg/mL Inj Sol-1mL Pk	FRS	00349747	2.7800
2493	Urecholine 10mg Tab	FRS	00349720	.3965
2494	Urecholine 25mg Tab	FRS	00349739	.5958
2495	Uremol-HC 1% & 10% Cr	TCD	00503134	.1850
2496	Uremol-HC 1% & 10% Lot	TCD	00560022	.0860

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
2497	Uridon 50mg Tab	ICN	00298964	.0202
2498	Uridon 100mg Tab	ICN	00293881	.0399
2499	Urispas 200mg Tab	PMS	00728179	.4740
2500	Uritol 40mg Tab	HOR	00344079	.0803
2501	V-Cillin K 25mg/mL O/L	LIL	00015563	.0275
2502	VC-K 500 60mg/mL O/L	LIL	00331945	.0472
2503	Valisone 0.1% Scalp Lot	SCH	00027944	.1537
2504	Valium 10mg/2mL Inj Sol-2mL Pk	HLR	00012874	.7080
2505	Valium 2mg Tab	HLR	00013277	.0626
2506	Valium 5mg Tab	HLR	00013285	.0872
2507	Valium 10mg Tab	HLR	00013293	.1417
2508	Vancenase Nas Sp-200 dose Pk	SCH	00422053	10.0300
2509	Vanceril Aero Pd-200 dose Pk	SCH	00374407	10.0300
2510	Vanquin 10mg/mL O/L	PDA	00023477	.1350
2511	Vaponefrin 2.25% Inh Sol-30mL Pk	ROR	00723711	20.7600
2512	Vasocon 0.1% Oph Sol	IOB	00759880	9.1000
2513	Vasotec 5mg Tab	FRS	00708879	.7550
2514	Vasotec 10mg Tab	FRS	00670901	.9072
2515	Vasotec 20mg Tab	FRS	00670928	1.0949
2516	Velbe Inj Pd-10mg Pk	LIL	00015431	49.8212
2517	Velosef 250mg Cap	SQU	00301620	.6370
2518	Velosef 500mg Cap	SQU	00301639	1.2470
2519	Velosulin 1000U/10mL Inj Sol	HOR	00552267	24.7000
2520	Velosulin Human 100U/mL Inj Sol	HOR	00983870	22.6000
2521	Velosulin Human 1000U/10mL Inj Sol	HOR	00632686	22.6000
2522	Ventodisk Diskhaler 200mcg/blister Pd Inh-120 dose Pk	GLA	00832766	18.8800
2523	Ventodisk Diskhaler 400mcg/blister Pd Inh-120 dose Pk	GLA	00832758	26.7500
2524	Ventolin Inh-200 dose Pk	GLA	00867179	11.8000
2525	Ventolin 5mg/mL Inh Sol-10mL Pk	GLA	00334227	8.7200
2526	Ventolin 0.25mg/5mL Inj Sol	GLA	00602914	.9524
2527	Ventolin 2.5mg/5mL Inj Sol	GLA	00602922	1.0012
2528	Ventolin 0.4mg/mL O/L	GLA	00670790	.0629
2529	Ventolin 2mg Tab	GLA	00361135	.1315
2530	Ventolin 4mg Tab	GLA	00332267	.2202
2531	Ventolin Nebules 1mg/mL Inh Sol-2.5mL Pk	GLA	00667242	.8930
2532	Ventolin Rotacaps 200mcg/Cart Inh Pd	GLA	00622060	.1574
2533	Ventolin Rotacaps 400mcg/Cart Inh Pd	GLA	00622079	.2230
2534	Verapamil 80mg Tab	KNR	00867365	.5107
2535	Verapamil 120mg Tab	KNR	00867373	.7802
2536	Vermox 100mg Tab	JAN	00556734	2.7025
2537	Vioform 3% Cr	CIB	00005142	.1887
2538	Vioform 3% Oint	CIB	00005797	.1887
2539	Viokase 16800 & 70000 & 70000USP U/0.7g Pd-114g Pk	ROB	00651672	36.5400
2540	Viokase 8000 & 30000 & 30000USP U Tab	ROB	00651680	.1490
2541	Vira-A 3% Oph Oint-3.5g Pk	PDA	00381780	15.8400
2542	Viroptic 1% Oph Sol	BWE	00687456	3.4670
2543	Viskazine 10/25 10mg & 25mg Tab	SAN	00568627	.7005
2544	Viskazine 10/50 10mg & 50mg Tab	SAN	00568635	.7005
2545	Visken 5mg Tab	SAN	00417270	.4192
2546	Visken 10mg Tab	SAN	00443174	.7244
2547	Visken 15mg Tab	SAN	00417289	1.0635
2548	Vitamin A 25000IU Cap	NOP	00021067	.0473
2549	Vitamin A 50000IU Cap	NOP	00021075	.0777
2550	Vitamin A Acid 0.05% Cr	ROR	00493333	.3406
2551	Vitamin A Acid 0.01% Gel	ROR	00590797	.3572
2552	Vitamin A Acid 0.05% Gel	ROR	00419001	.3406
2553	Vitamin B1 50mg Tab	LEA	00610267	.0200
2554	Vitamin B1-ICN 50mg Tab	ICN	00268631	.0200
2555	Vitamin B6 25mg Tab	LEA	00232475	.0180
2556	Vitamin B6 25mg Tab	WAM	00416185	.0250
2557	Vitamin B6-ICN 25mg Tab	ICN	00268607	.0180

Item	PRODUCT NAME, STRENGTH & DOSAGE FORM	MFR	DIN	BAP
2558	Vitamin C 250mg Tab	WAM	00036161	2.9000
2559	Vitamin C 500mg Tab	WAM	00036188	4.5000
2560	Vitamin C 1000mg Tab	WAM	00256862	9.1000
2561	Vivol 2mg Tab	HOR	00013757	.0193
2562	Vivol 5mg Tab	HOR	00013765	.0297
2563	Vivol 10mg Tab	HOR	00013773	.0534
2564	Voltaren 25mg Ent Tab	GEI	00514004	.2998
2565	Voltaren 50mg Ent Tab	GEI	00514012	.5995
2566	Voltaren 50mg Sup	GEI	00632724	.9500
2567	Voltaren 100mg Sup	GEI	00632732	1.2793
2568	Voltaren SR 100mg LA Tab	GEI	00590827	1.2476
2569	Warfilone 5mg Tab	FRS	00010308	.1668
2570	Westcort 0.2% Cr	WSD	00423165	.1669
2571	Westcort 0.2% Oint	WSD	00590800	.1615
2572	Winpred 1mg Tab	ICN	00271373	.1093
2573	Winstrol 2mg Tab	WIN	01902709	.2960
2574	Wycillin 5 Million 5000000IU/10mL Inj Susp-10mL Pk	WYE	00355615	5.2500
2575	Xanax 0.25mg Tab	UPJ	00548359	.1627
2576	Xanax 0.5mg Tab	UPJ	00548367	.1949
2577	Xylocaine Viscous 2% O/L	AST	00001686	.0715
2578	Zanosar Inj Pd-1g Pk	UPJ	00622141	36.2000
2579	Zantac 15mg/mL Oral Sol-10mL Pk	GLA	00782386	2.3630
2580	Zantac 50mg/2mL Inj Sol-2mL Pk	GLA	00603791	2.3700
2581	Zantac 150mg Tab	GLA	00553379	1.0333
2582	Zantac 300mg Tab	GLA	00641790	1.9453
2583	Zarontin 250mg Cap	PDA	00022799	.2646
2584	Zarontin 50mg/mL O/L	PDA	00023485	.0529
2585	Zaroxolyn 2.5mg Tab	PWC	00301663	.1324
2586	Zaroxolyn 5mg Tab	PWC	00301698	.1739
2587	Zaroxolyn 10mg Tab	PWC	00301671	.2298
2588	Zetar 1% Shampoo	ROR	00426423	11.9000
2589	Zetar 30% Emuls	ROR	00426415	11.4000
2590	Zinc Oxide 15% Oint	DTC	00093661	.0117
2591	Zinc Oxide 15% Oint	SDR	00178969	.0116
2592	Zoladex 3.6mg Depot Inj	ICI	00857599	362.2500
2593	Zovirax 5% Oint- 4g Pk	BWE	00569771	12.7500
2594	Zovirax 5% Oint-15g Pk	BWE	00983950	34.0000
2595	Zyloprim 100mg Tab	BWE	00004588	.0765
2596	Zyloprim 200mg Tab	BWE	00506370	.1520
2597	Zyloprim 300mg Tab	BWE	00294322	.2294

ONTARIO DRUG BENEFIT ACT, 1986

O. Reg. 45/91.

General.

Made—February 14th, 1991.

Filed—February 15th, 1991.

REGULATION TO AMEND
ONTARIO REGULATION 689/86
MADE UNDER THE
ONTARIO DRUG BENEFIT ACT, 1986

1. Schedule 1 to Ontario Regulation 689/86, as remade by section 1 of Ontario Regulation 321/90 and amended by section 1 of Ontario Regulation 43/91, is revoked and the following substituted:

Schedule 1

PART A

10 per cent

PART B

	COLUMN 1	COLUMN 2	COLUMN 3	
Item	04:00 Antihistaminics			
1	Astemizole 2mg/mL O/L	00610070 Hismanal	JAN	.2380
2	Astemizole 10mg Tab	00610089 Hismanal	JAN	.6581
3	Azatadine Maleate 1mg Tab	00355666 Optimine	SCH	.2573
4	Brompheniramine Maleate 0.4mg/mL O/L	00026395 Dimetane	ROB	.0178
5	Brompheniramine Maleate 4mg Tab	00026484 Dimetane	ROB	.0749
6	Chlorpheniramine Maleate 10mg/mL Inj Sol-1mL Pk	00027995 Chlor-Tripolon	SCH	2.4020
7	Chlorpheniramine Maleate 0.5mg/mL O/L	00028134 Chlor-Tripolon	SCH	.0351
8	* Chlorpheniramine Maleate 4mg Tab	00021288 Novo-Pheniram	NOP	.0117
9	Clemastine 1mg Tab	00349046 Tavist	ANC	.2467
10	Cyproheptadine HCl 0.4mg/mL O/L	00016314 Periactin	MSD	.0354
11	* Cyproheptadine HCl 4mg Tab	00016454 Periactin	MSD	.1506
12	Dexchlorpheniramine Maleate 0.4mg/mL O/L	00225533 Polaramine	SCH	.0304

Item 04:00 Antihistaminics

13	Dexchlorpheniramine Maleate 2mg Tab	00028207 Polaramine	SCH	.1146
14	* Diphenhydramine HCl 25mg Cap	00022756 Benadryl 00370517 Allerdryl	PDA ICN	.0814
15	* Diphenhydramine HCl 50mg Cap	00022764 Benadryl 00271411 Allerdryl	PDA ICN	.1076
16	Diphenhydramine HCl 50mg/mL Inj Sol-1mL Pk	00023205 Benadryl	PDA	2.8875
17	Diphenhydramine HCl 2.5mg/mL O/L	00022918 Benadryl	PDA	.0289
18	Loratadine 10mg Tab	00782696 Claritin	SCH	.7410
19	Promethazine HCl 50mg/2mL Inj Sol-2mL Pk	00025046 Phenergan	RPP	1.1730
20	Promethazine HCl 2mg/mL O/L	00025429 Phenergan 00583979 PMS-Promethazine	RPP PMS	.0180
21	Promethazine HCl 10mg Tab	00025712 Phenergan	RPP	.0838
22	Promethazine HCl 25mg Tab	00213896 Phenergan	RPP	.1053
23	Terfenadine 6mg/mL Susp	00614394 Seldane	MER	.0556
24	Terfenadine 60mg Tab	00590908 Seldane	MER	.3165
25	Trimeprazine Tartrate 2.5mg Tab	00025771 Panectyl	RPP	.1976
26	Trimeprazine Tartrate 5mg Tab	00025798 Panectyl	RPP	.2342
27	Tripelennamine HCl 50mg Tab	00623504 Pyribenzamine	CGS	.1167

Item 08:00 Anti-Infective Agents

08:08:00 Anthelmintics

28	Mebendazole 100mg Tab	00556734 Vermox	JAN	2.7025
29	Piperazine Adipate Gran-2g Pk	00002739 Entacyl	GLA	.6690
30	Piperazine Adipate 120mg/mL O/L	00003131 Entacyl	GLA	.0534
31	Pyruvium Pamoate 10mg/mL O/L	00023477 Vanquin	PDA	.1350
32	Quinacrine HCl 100mg Tab	#00033804 Atabrine	WIN	.2280

08:12:04 Antibiotics Antifungals

33	Amphotericin B Inj Pd-50mg Pk	00029149 Fungizone	SQU	34.1500
34	Flucytosine 500mg Cap	00384895 Ancotil	HLR	1.1135
35	Griseofulvin 125mg Tab	00012246 Grisovin FP 00028266 Fulvicin U/F	GLA SCH	.1525 .1429
36	Griseofulvin 165mg Tab	00513229 Fulvicin P/G	SCH	.2213
37	Griseofulvin 250mg Tab	00012254 Grisovin FP 00028274 Fulvicin U/F	GLA SCH	.2788 .2458
38	Griseofulvin 330mg Tab	00513237 Fulvicin P/G	SCH	.3742
39	Griseofulvin 500mg Tab	00012262 Grisovin FP 00028282 Fulvicin U/F	GLA SCH	.4735 .4161
40	Ketoconazole 20mg/mL O/L	00788813 Nizoral	JAN	.1992
41	Ketoconazole 200mg Tab	00633836 Nizoral	JAN	1.7790
42	Nystatin 100000U/mL O/L	00014850 Nilstat 00248169 Mycostatin 00282219 Nadostine	LED SQU NDA	.0620
43	Nystatin 500000U Tab	00014974 Nilstat 00029416 Mycostatin 00270113 Nadostine	LED SQU NDA	.0775

Item 08:00 Anti-Infective Agents

08:12:12 Antibiotics Erythromycins

44	Erythromycin Base 250mg Ent Pel Cap	00607142 ERYC 00726672 Apo-Erythro E-C +00846333 Erythromycin Delayed-Release Capsules +00878669 Novo-Rythro Encap	PDA APX ABB NOP	.2520
45	Erythromycin Base 250mg Tab	00030899 E-Mycin 00244635 Erythromid 00640263 Erythromycin 00682020 Apo-Erythro	UPJ ABB KNR APX	.0540
46	Erythromycin Estolate 250mg Cap	00015202 Ilosone 00020966 Novo-Rythro Estolate	LIL NOP	.1199
47	Erythromycin Estolate 25mg/mL O/L	00015474 Ilosone 00021172 Novo-Rythro Estolate	LIL NOP	.0250
48	Erythromycin Estolate 50mg/mL O/L	00210641 Ilosone 00262595 Novo-Rythro Estolate	LIL NOP	.0504
49	Erythromycin Estolate 500mg Tab	00244384 Ilosone	LIL	.8002
50	Erythromycin Ethylsuccinate 40mg/mL O/L	00000299 EES-200	ABB	.0883
51	Erythromycin Ethylsuccinate 80mg/mL O/L	00453617 EES-400	ABB	.1338
52	Erythromycin Ethylsuccinate 600mg Tab	00583782 EES-600 00637416 Apo-Erythro-ES	ABB APX	.4150
53	Erythromycin Ethylsuccinate & Sulfisoxazole Acetyl 40mg & 120mg/mL O/L	00583405 Pediazole	ABB	.0969
54	Erythromycin Stearate 25mg/mL O/L	00000302 Erythrocin	ABB	.0378
55	Erythromycin Stearate 50mg/mL O/L	00273023 Erythrocin	ABB	.0672
56	Erythromycin Stearate 250mg Tab	00000434 Erythrocin 00391581 Novo-Rythro Stearate 00545678 Apo-Erythro-S	ABB NOP APX	.0912
57	Erythromycin Stearate 500mg Tab	00266515 Erythrocin 00688568 Apo-Erythro-S	ABB APX	.5107
58	Particle Coated Erythromycin 333mg Tab	00769991 PCE Dispartab	ABB	.4884

Item 08:00 Anti-Infective Agents

08:12:16 Antibiotics Penicillins

59	Amoxicillin 250mg Cap	00288497 Amoxil 00406724 Novamoxin 00628115 Apo-Amoxi +00865567 Nu-Amoxi	AYE NOP APX NXP	.1087
60	Amoxicillin 500mg Cap	00330531 Amoxil 00406716 Novamoxin 00628123 Apo-Amoxi +00865575 Nu-Amoxi	AYE NOP APX NXP	.2116
61	Amoxicillin 25mg/mL O/L	00288500 Amoxil 00452149 Novamoxin 00628131 Apo-Amoxi +00865540 Nu-Amoxi	AYE NOP APX NXP	.0220
62	Amoxicillin 50mg/mL O/L	00288519 Amoxil 00452130 Novamoxin 00628158 Apo-Amoxi +00865559 Nu-Amoxi	AYE NOP APX NXP	.0325
63	Amoxicillin 50mg/mL Ped O/L	00353035 Amoxil	AYE	.6044
64	Amoxicillin & Clavulanic Acid 25mg & 6.25mg/mL O/L	00617512 Clavulin	BEE	.1014
65	Amoxicillin & Clavulanic Acid 50mg & 12.5mg/mL O/L	00617520 Clavulin	BEE	.1704
66	Amoxicillin & Clavulanic Acid 250mg & 125mg Tab	00617490 Clavulin	BEE	.8560
67	Amoxicillin & Clavulanic Acid 500mg & 125mg Tab	00617504 Clavulin	BEE	1.3332
68	Ampicillin 250mg Cap	00002003 Penbritin 00020877 Novo-Ampicillin 00603279 Apo-Ampi +00717657 Nu-Ampi	AYE NOP APX NXP	.0862
69	Ampicillin 500mg Cap	00002011 Penbritin 00020885 Novo-Ampicillin 00603295 Apo-Ampi +00717673 Nu-Ampi	AYE NOP APX NXP	.1672
70	Ampicillin Inj Pd- 500mg Pk	00002119 Penbritin 00004057 Ampicin	AYE BRI	1.6300
71	Ampicillin Inj Pd-1000mg Pk	00002127 Penbritin 00004065 Ampicin	AYE BRI	2.3000

Item 08:00 Anti-Infective Agents

08:12:16 Antibiotics Penicillins

72	Ampicillin 25mg/mL O/L	00002410 Penbritin 00021121 Novo-Ampicillin 00603260 Apo-Ampi +00717495 Nu-Ampi	AYE NOP APX NXP	.0175
73	Ampicillin 50mg/mL O/L	00002429 Penbritin 00021148 Novo-Ampicillin 00603287 Apo-Ampi +00717649 Nu-Ampi	AYE NOP APX NXP	.0270
74	Bacampicillin HCl 400mg Tab	00627127 Penglobe	AST	.4578
75	Bacampicillin HCl 800mg Tab	00627135 Penglobe	AST	.9345
76	Carbenicillin Indanyl (Sodium) 500mg Tab	00328235 Geopen	PFI	1.1280
77	Cloxacillin 250mg Cap	00002046 Orbenin 00337765 Novo-Cloxin 00618292 Apo-Cloxi +00717584 Nu-Cloxi	AYE NOP APX NXP	.1045
78	Cloxacillin 500mg Cap	00002054 Orbenin 00337773 Novo-Cloxin 00618284 Apo-Cloxi +00717592 Nu-Cloxi	AYE NOP APX NXP	.2048
79	Cloxacillin Inj Pd- 250mg Pk	00002151 Orbenin 00407593 Tegopen	AYE BRI	1.2000
80	Cloxacillin Inj Pd- 500mg Pk	00002178 Orbenin 00407607 Tegopen	AYE BRI	1.7165
81	Cloxacillin Inj Pd-2000mg Pk	00002186 Orbenin 00407615 Tegopen	AYE BRI	3.1000
82	Cloxacillin 25mg/mL O/L	00002445 Orbenin 00337757 Novo-Cloxin 00644633 Apo-Cloxi +00717630 Nu-Cloxi	AYE NOP APX NXP	.0250
83	Dicloxacillin 250mg Cap	#00003964 Dynapen	BRI	.3963
84	Penicillin G (Benzathine) 1200000IU/2mL Inj Sol-2mL Pk	00036315 Bicillin 1200 L-A	WYE	6.1000
85	Penicillin G (Benzathine) 100000IU/mL O/L	00009938 Megacillin 500	FRS	.0592

Item 08:00 Anti-Infective Agents

08:12:16 Antibiotics Penicillins

86	Penicillin G (Potassium) 500000IU Tab	00107484 Megacillin 500 00151432 Novo-Pen-500	FRS NOP	.0448
87	Penicillin G Crystalline Inj Pd- 1000000IU Pk	00002208 Penicillin G (Pot) 00011983 Crystapen (Sod)	AYE GLA	1.3108
88	Penicillin G Crystalline Inj Pd- 5000000IU Pk.	00002216 Penicillin G (Pot) 00011991 Crystapen (Sod)	AYE GLA	2.8619
89	Penicillin G Procaine Aqueous Suspension 3000000IU/10mL Inj Susp-10mL Pk	00002402 Ayercillin	AYE	5.0105
90	Penicillin G Procaine Aqueous Suspension 5000000IU/10mL Inj Susp-10mL Pk	00355615 Wycillin 5 Million	WYE	5.2500
91	Penicillin V (Benzathine) 60mg/mL O/L	00034045 Pen-Vee 00248835 PVF 500	WYE FRS	.0411
92	Penicillin V (Potassium) 25mg/mL O/L	00015563 V-Cillin K 00018635 Nadopen-V 00642223 Apo-Pen V-K	LIL NDA APX	.0250
93	Penicillin V (Potassium) 60mg/mL O/L	00331945 VC-K 500 00391603 Novo-Pen-VK-500 00642231 Apo-Pen V-K	LIL NOP APX	.0345
94	Penicillin V (Potassium) 300mg Tab	00018740 Nadopen-V 00021202 Novo-Pen-VK-500 00248843 PVF-K 500 00642215 Apo-Pen V-K +00717568 Nu-Pen VK	NDA NOP FRS APX NXP	.0399
95	Pivampicillin 35mg/mL O/L	00582239 Pondocillin	LEO	.0606
96	Pivampicillin 500mg Tab	00582247 Pondocillin	LEO	.6315
97	Sodium Flucloxacillin 250mg Cap	00486795 Fluclox	AYE	.5421
98	Sodium Flucloxacillin 500mg Cap	00486809 Fluclox	AYE	.9935
99	Sodium Flucloxacillin 25mg/mL O/L	00486817 Fluclox	AYE	.1375
100	Sodium Flucloxacillin 50mg/mL O/L	00525561 Fluclox	AYE	.2058

Item 08:00 Anti-Infective Agents

08:12:24 Antibiotics Tetracyclines

101	Tetracycline 250mg Cap	00014605 Achromycin V 00021059 Novo-Tetra 00024422 Tetracyn 00580929 Apo-Tetra +00717606 Nu-Tetra	LED NOP PFI APX NXP	.0205
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102	Tetracycline Inj Pd-250mg Pk	00014729 Achromycin	LED	11.6650
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103	Tetracycline 25mg/mL O/L	00151416 Novo-Tetra	NOP	.0191
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08:12:28 Antibiotics Other Antibiotics

104	Cefaclor 250mg Cap	00465186 Ceclor	LIL	.9693
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105	Cefaclor 500mg Cap	00465194 Ceclor	LIL	1.9029
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106	Cefaclor 25mg/mL O/L	00465208 Ceclor	LIL	.1030
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107	Cefaclor 50mg/mL O/L	00465216 Ceclor	LIL	.1884
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108	Cefadroxil 500mg Cap	00507245 Duricef	BRI	1.1565
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109	Cefadroxil 50mg/mL O/L	#00674826 Duricef	BRI	.1983
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110	Cefadroxil 1g Tab	#00749346 Duricef	BRI	2.2030
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111	Cefazolin Sodium Inj Pd- 500mg Pk	00319139 Ancef 00322288 Kefzol	SKF LIL	3.5300
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112	Cefazolin Sodium Inj Pd-1000mg Pk	00319112 Ancef 00322296 Kefzol	SKF LIL	6.8600
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113	Ceftriaxone Disodium 0.25g/Vial Inj Pd-1 Vial Pk	00657387 Rocephin	HLR	10.7500
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114	Ceftriaxone Disodium 1g/Vial Inj Pd-1 Vial Pk	00657417 Rocephin	HLR	34.0000
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115	Ceftriaxone Disodium 2g/Vial Inj Pd-1 Vial Pk	00657409 Rocephin	HLR	67.0000
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116	Cephalexin Monohydrate 250mg Cap	#00253154 Ceporex 00342084 Novo-Lexin	GLA NOP	.1821
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117	Cephalexin Monohydrate 500mg Cap	#00253146 Ceporex 00342114 Novo-Lexin	GLA NOP	.3593
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Item 08:00 Anti-Infective Agents

08:12:28 Antibiotics Other Antibiotics

118	Cephalexin Monohydrate 25mg/mL O/L	00015547 Keflex 00342106 Novo-Lexin	LIL NOP	.0378
119	Cephalexin Monohydrate 50mg/mL O/L	00035645 Keflex 00342092 Novo-Lexin	LIL NOP	.0767
120	Cephalexin Monohydrate 250mg Tab	00403628 Keflex 00583413 Novo-Lexin 00768723 Apo-Cephalex +00865877 Nu-Cephalex	LIL NOP APX NXP	.1817
121	Cephalexin Monohydrate 500mg Tab	00244392 Keflex 00583421 Novo-Lexin 00768715 Apo-Cephalex +00865885 Nu-Cephalex	LIL NOP APX NXP	.3576
122	Cephalothin Sodium Inj Pd-1g Pk	00015369 Keflin	LIL	4.3647
123	Cephalothin Sodium Inj Pd-2g Pk	00244406 Keflin	LIL	8.4806
124	Cephradine 250mg Cap	00301620 Velosef	SQU	.6370
125	Cephradine 500mg Cap	00301639 Velosef	SQU	1.2470
126	Clindamycin HCl 150mg Cap	00030570 Dalacin C	UPJ	.7461
127	Clindamycin Palmitate 15mg/mL O/L	00225851 Dalacin C	UPJ	.1060
128	Clindamycin Phosphate 300mg/2mL Inj Sol-2mL Pk	00260436 Dalacin C	UPJ	6.2800
129	Colistimethate Sodium Inj Pd-150mg Pk	00476420 Coly-Mycin	PDA	31.8000
130	Gentamicin Sulfate 80mg/2mL Inj Sol-2mL Pk	00223824 Garamycin 00259179 Cidomycin	SCH ROU	4.0900
131	Lincomycin 500mg Cap	00030589 Lincocin	UPJ	.6660
132	Lincomycin 600mg/2mL Inj Sol-2mL Pk	00030732 Lincocin	UPJ	4.8500
133	Neomycin Sulfate 25mg/mL O/L	00030805 Mycifradin	UPJ	.0725
134	Neomycin Sulfate 500mg Tab	00030996 Mycifradin	UPJ	.2305

Item 08:00 Anti-Infective Agents

08:12:28 Antibiotics Other Antibiotics

135	Polymyxin B Sulfate Inj Pd-500000UPk	00004421 Aerosporin	BWE	26.7600
136	Spectinomycin Inj Pd-2g Pk	00210196 Trobicin	UPJ	14.2000
137	Tobramycin Sulfate 20mg/2mL Inj Sol-2mL Pk	00325457 Nebcin	LIL	3.2794
138	Tobramycin Sulfate 60mg/1.5mL Inj Sol-1.5mL Pk	00375764 Nebcin	LIL	6.0978
139	Tobramycin Sulfate 80mg/2mL Inj Sol-2mL Pk	00325449 Nebcin	LIL	6.6188
140	Tobramycin Sulfate 80mg/2mL Inj Sol-2mL Hypo	00381969 Nebcin	LIL	7.3308

08:16:00 Antitubercular Agents

141	Aminosalicylate Sodium 500mg Tab	00236691 Nemasol	ICN	.1932
142	Ethambutol HCl 100mg Tab	00127957 Myambutol 00247960 Etibi	LED ICN	.0912
143	Ethambutol HCl 400mg Tab	00127965 Myambutol 00247979 Etibi	LED ICN	.2539
144	Isoniazid 100mg Tab	00261270 Isotamine 00440108 Isoniazid	ICN SAP	.0260
145	Isoniazid 300mg Tab	00272655 Isotamine 00310247 Isoniazid	ICN SAP	.0600
146	Pyrazinamide 500mg Tab	00283991 Tebrazid	ICN	.5384
147	Rifampin 150mg Cap	00210471 Rimactane 00393444 Rofact 00580376 Rifadin	CIB ICN MER	.6038
148	Rifampin 300mg Cap	00210463 Rimactane 00343617 Rofact 00580384 Rifadin	CIB ICN MER	.9503

08:20:00 Plasmodicides (Antimalarials)

149	Chloroquine Phosphate 250mg Tab	00021261 Novo-Chloroquine 00033642 Aralen	NOP WIN	.0699
150	Hydroxychloroquine Sulfate 200mg Tab	00033669 Plaquenil	WIN	.3798

Item 08:00 Anti-Infective Agents

08:20:00 Plasmodicides (Antimalarials)

151	Quinine Sulfate 200mg Cap	00021008 Novo-Quinine 00093742 Quinine Sulfate 00178993 Quinine Sulfate	NOP DTC SDR	.0889
152	Quinine Sulfate 300mg Cap	00021016 Novo-Quinine 00093750 Quinine 00179000 Quinine Sulfate	NOP DTC SDR	.1401

08:24:00 Sulfonamides

153	Sulfamethoxazole 500mg Tab	00013412 Gantanol 00421480 Apo-Sulfamethoxazole	HLR APX	.1035
154	Sulfapyridine 500mg Tab	00163929 Dagenan	RPP	.3621
155	Sulfasalazine 500mg Ent Tab	00158526 Salazopyrin 00445126 S.A.S. Enteric 500 00598488 PMS-Sulfasalazine -E.C. 00685925 Sulfasalazine	PHD ICN PMS KNR	.1373
156	Sulfasalazine 500mg Tab	00024856 Salazopyrin 00263869 S.A.S. 500 00598461 PMS-Sulfasalazine 00685933 Sulfasalazine	PHD ICN PMS KNR	.0998
157	Sulfisoxazole 500mg Tab	00021792 Novo-Soxazole	NOP	.0410

08:26:00 Sulfones

158	Dapsone 100mg Tab	00002526 Avlosulfon	AYE	.1822
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08:32:00 Trichomonacides

159	Metronidazole 500mg Cap	00489891 Flagyl +00783137 Trikacide	RPP PMS	.8250
160	Metronidazole 250mg Tab	00021555 Novo-Nidazol 00025615 Flagyl 00545066 Apo-Metronidazole 00584339 PMS-Metronidazole	NOP RPP APX PMS	.0293

08:36:00 Urinary Anti-Infectives

161	Methenamine Hippurate 1g Tab	00026379 Hip-Rex	RIK	.5680
162	Methenamine Mandelate 500mg Ent Tab	00499013 Mandelamine	PDA	.1219

Item 08:00 Anti-Infective Agents

08:36:00 Urinary Anti-Infectives

163	Methenamine Mandelate 1000mg Ent Tab	00499021 Mandelamine	PDA	.1872
164	Nalidixic Acid 50mg/mL O/L	00036250 NegGram	WIN	.0839
165	Nalidixic Acid 500mg Tab	00033723 NegGram	WIN	.5144
166	Nitrofurantoin 25mg Cap	00452491 Macrochantin	EAT	.1920
167	Nitrofurantoin 50mg Cap	00452505 Macrochantin	EAT	.3126
168	Nitrofurantoin 100mg Cap	00452483 Macrochantin	EAT	.5501
169	Nitrofurantoin 5mg/mL O/L	00232971 Novo-Furan	NOP	.0284
170	Nitrofurantoin 50mg Tab	00021563 Novo-Furan 00319511 Apo-Nitrofurantoin	NOP APX	.0195
171	Nitrofurantoin 100mg Tab	00021571 Novo-Furan 00092819 Nitrofurantoin 00312738 Apo-Nitrofurantoin	NOP DTC APX	.0212
172	Pivmecillinam HCl 200mg Tab	00657212 Selexid 00791741 Mecillin 200	LEO MCN	.8153

08:40:00 Miscellaneous Anti-Infectives

173	Ciprofloxacin 250mg Tab	00817163 Cipro	MIT	2.0963
174	Ciprofloxacin 500mg Tab	00817171 Cipro	MIT	2.3650
175	Ciprofloxacin 750mg Tab	00817198 Cipro	MIT	4.4613
176	Iodoquinol 650mg Tab	00180386 Diodoquin	SEA	.3683
177	Norfloxacin 400mg Tab	00643025 Noroxin	MSD	2.0584
178	Sulfamethoxazole & Trimethoprim 40mg & 8mg/mL O/L	00270644 Septra 00272485 Bactrim Sugar Free 00726540 Novo-Trimel 00846465 Apo-Sulfatrim +00865753 Nu-Cotrimox	BWE HLR NOP APX NXP	.0210

Item 08:00 Anti-Infective Agents

08:40:00 Miscellaneous Anti-Infectives

179	Sulfamethoxazole & Trimethoprim 400mg & 80mg Tab	00270636 Septra 00272469 Bactrim 00445274 Apo-Sulfatrim 00510637 Novo-Trimel 00516759 Sulfamethoxazole & Trimethoprim +00865710 Nu-Cotrimox	BWE HLR APX NOP DTC NXP	.0831
180	Sulfamethoxazole & Trimethoprim 800mg & 160mg Tab	00368040 Septra DS 00371823 Bactrim-DS 00445282 Apo-Sulfatrim-DS 00510645 Novo-Trimel DS 00516767 Sulfamethoxazole & Trimethoprim DS +00865729 Nu-Cotrimox	BWE HLR APX NOP DTC NXP	.1573
181	Trimethoprim 100mg Tab	00675229 Proloprim	BWE	.2500
182	Trimethoprim 200mg Tab	00677590 Proloprim	BWE	.5130
183	Trimethoprim & Sulfadiazine 9mg/mL & 41mg/mL Oral Susp	00745618 Coptin	JOU	.1370
184	Trimethoprim & Sulfadiazine 90mg & 410mg Tab	00656933 Coptin	JOU	.4750

Item 10:00 Antineoplastic Agents

185	Amethopterin 2.5mg Tab	00014915 Methotrexate	LED	.9856
186	Amethopterin (Sodium) 50mg/2mL Inj Sol-2mL Pk	00321397 Methotrexate	LED	17.4900
187	Aminoglutethimide 250mg Tab	00587729 Cytadren	CIB	.9775
188	Azathioprine 50mg Tab	00004596 Imuran	BWE	.7800
189	Bleomycin Sulfate Inj Pd-15U Pk	00258482 Blenoxane	BRI	170.7000
190	Busulfan 2mg Tab	00004618 Myleran	BWE	1.2000
191	Carmustine (BCNU) Inj Pd-100mg Pk	00297763 BiCNU	BRI	46.0500
192	Chlorambucil 2mg Tab	00004626 Leukeran	BWE	1.1300
193	Cyclophosphamide Inj Pd- 200mg Pk	00013544 Procytox	HOR	5.6500
194	Cyclophosphamide Inj Pd-500mg Pk	00344915 Cytosan	BRI	7.4000
195	Cyclophosphamide Inj Pd-1000mg Pk	00013552 Procytox	HOR	13.1800
196	Cyclophosphamide 25mg Tab	00262676 Procytox 00344877 Cytosan	HOR BRI	.3435
197	Cyclophosphamide 50mg Tab	00013749 Procytox 00344885 Cytosan	HOR BRI	.4534
198	Cyproterone Acetate 50mg Tab	00704431 Androcur	BER	2.1466
199	Cytarabine Inj Pd- 100mg Pk	00386715 Cytosar	UPJ	9.1100
200	Cytarabine Inj Pd- 500mg Pk	00194727 Cytosar	UPJ	40.3000
201	Cytarabine Inj Pd-1g Pk	00646296 Cytosar	UPJ	73.5000
202	Cytarabine Inj Pd-2g Pk	00646318 Cytosar	UPJ	145.2500
203	Dacarbazine Inj Pd-200mg Pk	00521183 DTIC	MIT	17.7300
204	Dactinomycin Inj Pd-0.5mg Pk	00213071 Cosmegen	MSD	7.9600

Item 10:00 Antineoplastic Agents

205	Daunorubicin Inj Pd-20mg Pk	00163899 Cerubidine	RPP	78.5500
206	Estramustine Phosphate Disodium 140mg Cap	00780278 Emcyt	PHD	2.8140
207	Fluorouracil 500mg/10mL Inj Sol-10mL Pk	00012882 Fluorouracil	HLR	3.4400
208	Flutamide 250mg Tab	00637726 Euflex	SCH	2.0250
209	Goserelin Acetate 3.6mg Depot Inj	00857599 Zoladex	ICI	362.2500
210	L-Asparaginase Inj Pd-10000IU Pk	00285463 Kidrolase	RPP	123.1500
211	Leuprolide Acetate 5mg/mL Inj Sol-2.8mL Kit	00727695 Lupron	ABB	168.4400
212	Leuprolide Acetate 7.5mg Amp-Kit	00836273 Lupron Depot	ABB	362.2500
213	Levamisole HCl 50mg Tab	+00846368 Ergamisol	JAN	4.5000
214	Lomustine (CCNU) 10mg Cap	00360430 CeeNU	BRI	3.8675
215	Lomustine (CCNU) 40mg Cap	00360422 CeeNU	BRI	6.6900
216	Lomustine (CCNU) 100mg Cap	00360414 CeeNU	BRI	11.0450
217	Mechlorethamine HCl Inj Pd-10mg Pk	00016063 Mustargen	MSD	6.9400
218	Megestrol Acetate 40mg Tab	00386391 Megace	BRI	1.2435
219	Megestrol Acetate 160mg Tab	00731323 Megace	BRI	4.9750
220	Melphalan 2mg Tab	00004715 Alkeran	BWE	1.2700
221	Mercaptopurine 50mg Tab	00004723 Purinethol	BWE	1.7120
222	Methotrexate Sodium 20mg/2mL Inj Sol-2mL Pk	00614335 Methotrexate Sodium	HOR	12.5000
223	Mitomycin Inj Pd-5mg Pk	00381799 Mutamycin	BRI	80.3000
224	Procarbazine HCl 50mg Cap	00012750 Natulan	HLR	.4000
225	Streptozocin Inj Pd-1g Pk	00622141 Zanosar	UPJ	36.2000

Item 10:00 Antineoplastic Agents

226	Tamoxifen Citrate 10mg Tab	00419052 Nolvadex	ICI	.5250
		00657360 Tamofen	RPP	
		00810444 Tamone	ADI	
		00812404 Apo-Tamox	APX	
		00839361 Alpha-Tamoxifen	GEN	
		+00851965 Novo-Tamoxifen	NOP	
227	Tamoxifen Citrate 20mg Tab	00638706 Nolvadex D	ICI	.9500
		00657379 Tamofen	RPP	
		00810452 Tamone	ADI	
		00812390 Apo-Tamox	APX	
		00839353 Alpha-Tamoxifen	GEN	
		+00851973 Novo-Tamoxifen	NOP	
228	Thio-Tepa Inj Pd-15mg Pk	00237035 Thio-Tepa	LED	16.3083
229	Thioguanine 40mg Tab	00282081 Lanvis	BWE	3.4960
230	Vinblastine Sulfate Inj Pd-10mg Pk	00015431 Velbe	LIL	49.8212
231	Vincristine Sulfate 1mg/mL Inj Sol	00611182 Oncovin	LIL	31.7940

Item 12:00 Autonomic Agents

12:04:00 Parasympathomimetic (Cholinergic) Agents

232	Bethanechol Chloride 5mg/mL Inj Sol-1mL Pk	00349747 Urecholine	FRS	2.7800
233	Bethanechol Chloride 10mg Tab	00349720 Urecholine 00452998 Duvoid	FRS EAT	.2605
234	Bethanechol Chloride 25mg Tab	00349739 Urecholine 00453005 Duvoid	FRS EAT	.4160
235	Bethanechol Chloride 50mg Tab	00453013 Duvoid	EAT	.6730
236	Carbachol 0.25mg/mL Inj Sol-1mL Pk	00341622 Carbachol	GLA	3.7080
237	Carbachol 2mg Tab	00003212 Carbachol	GLA	.3583
238	Edrophonium Chloride 100mg/10mL Inj Sol-10mL Pk	00855804 Tensilon	ICN	11.9973
239	Neostigmine Bromide 15mg Tab	00869945 Prostigmin	ICN	.1390
240	Neostigmine Methylsulfate 0.5mg/mL Inj Sol-1mL Pk	00869910 Prostigmin	ICN	.8487
241	Pyridostigmine Bromide 180mg LA Tab	00869953 Mestinon	ICN	.3165
242	Pyridostigmine Bromide 60mg Tab	00869961 Mestinon	ICN	.1396

12:08:00 Parasympatholytic (Cholinergic Blocking) Agents

243	Atropine Sulfate 0.4mg/mL Inj Sol-1mL Pk	00061697 Atropine	GLA	.4914
244	Atropine Sulfate 0.6mg/mL Inj Sol-1mL Pk	00012076 Atropine	GLA	.4914
245	Benztropine Mesylate 2mg/2mL Inj Sol-2mL Pk	00016128 Cogentin	MSD	4.4667
246	Benztropine Mesylate 2mg Tab	00016357 Cogentin 00426857 Apo-Benzotropine	MSD APX	.0101
247	Dicyclomine HCl 10mg Cap	00361933 Formulex	ICN	.0580
248	Dicyclomine HCl 20mg/2mL Inj Sol-2mL Pk	00133965 Bentytol	MER	4.8325
249	Dicyclomine HCl 2mg/mL O/L	00018023 Bentytol	MER	.0498

Item 12:00 Autonomic Agents

12:08:00 Parasympatholytic (Cholinergic Blocking) Agents

250	Dicyclomine HCl 20mg Tab	00282529 Bentylol	MER	.1642
251	Ethopropazine HCl 50mg Tab	00025550 Parsitan	RPP	.1819
252	Flavoxate HCl 200mg Tab	00728179 Urispas	PMS	.4740
253	Glycopyrrolate 0.2mg/mL Inj Sol-1mL Pk	00026425 Robinul	ROB	1.5720
254	Glycopyrrolate 1mg Tab	00026514 Robinul	ROB	.0978
255	Glycopyrrolate 2mg Tab	00026522 Robinul Forte	ROB	.1624
256	Hyoscine Butylbromide 20mg/mL Inj Sol-1mL Pk	00363839 Buscopan	BOE	3.3470
257	Hyoscine Butylbromide 10mg Sup	00363820 Buscopan	BOE	1.3800
258	Hyoscine Butylbromide 10mg Tab	00363812 Buscopan	BOE	.1760
259	Hyoscyamine Sulfate 0.125mg SL Tab	00125857 Levsin	KUC	.1247
260	Ipratropium Bromide Inh-200 dose Pk	00576158 Atrovent	BOE	15.1200
261	Ipratropium Bromide 0.25mg/mL Inh Sol-20mL Pk	00731439 Atrovent	BOE	16.8600
262	Orphenadrine HCl 50mg Tab	00026387 Disipal	RIK	.3970
263	Oxybutynin Chloride 1mg/mL O/L	00548332 Ditropan	EAT	.0854
264	Oxybutynin Chloride 5mg Tab	00530921 Ditropan	EAT	.3796
265	Procyclidine HCl 0.5mg/mL O/L	00004405 Kemadrin 00485012 Procyclid	BWE ICN	.0318
266	Procyclidine HCl 2.5mg Tab	00649392 PMS-Procyclidine	PMS	.0264
267	Procyclidine HCl 5mg Tab	00004758 Kemadrin 00306290 Procyclid 00587354 PMS-Procyclidine	BWE ICN PMS	.0250
268	Propantheline Bromide 7.5mg Tab	00028584 Pro-Banthine	SEA	.1806

Item 12:00 Autonomic Agents

12:08:00 Parasympatholytic (Cholinergic Blocking) Agents

269	Propantheline Bromide 15mg Tab	00028592 Pro-Banthine 00294837 Propanthel	SEA ICN	.0379
270	Scopolamine 1.5mg Transderm Syst	00550094 Transderm-V	CIB	1.6250
271	Trihexyphenidyl HCl 0.4mg/mL O/L	00014656 Artane	LED	.0269
272	Trihexyphenidyl HCl 2mg Tab	00015040 Artane 00021911 Novo-Hexidyl #00280445 Aparkane 00545058 Apo-Trihex	LED NOP ICN APX	.0105
273	Trihexyphenidyl HCl 5mg Tab	00015059 Artane 00021938 Novo-Hexidyl 00271314 Aparkane 00545074 Apo-Trihex	LED NOP ICN APX	.0087

12:12:00 Sympathomimetic (Adrenergic) Agents

274	Ephedrine HCl 30mg Tab	00304069 Ephedrine	GLA	.2023
275	Epinephrine Aero Sol-15mL Pk	00282286 Bronkaid Mistometer	WIN	9.4600
276	Epinephrine Bitartrate Aero Susp-15mL Pk	00026271 Medihaler-Epi	RIK	17.4500
277	Epinephrine HCl 30mg/30mL Inj Sol-30mL Pk	00155357 Adrenalin	PDA	9.4500
278	Epinephrine HCl (Racemic) 2.25% Inh Sol-30mL Pk	00723711 Vaponefrin	ROR	20.7600
279	Fenoterol HBr Inh Pd-200 dose Pk	00371807 Berotec	BOE	12.5700
280	Fenoterol HBr 0.1% Inh Sol-20mL Pk	00541389 Berotec	BOE	13.4900
281	Fenoterol HBr 2.5mg Tab	00454796 Berotec	BOE	.2213
282	Isoproterenol HCl Aero Sol-15mL Pk	00033219 Isuprel Mistometer	WIN	12.4800
283	Isoproterenol HCl 0.5% Inh Sol-10mL Pk	00033227 Isuprel	WIN	8.1300
284	Isoproterenol HCl 10mg SL Tab	#00033820 Isuprel	WIN	.1660
285	Isoproterenol Sulfate Aero Susp-15mL Pk	00026301 Medihaler-Iso	RIK	17.4500

Item 12:00 Autonomic Agents

12:12:00 Sympathomimetic (Adrenergic) Agents

286	Orciprenaline Sulfate Inh Pd-300 dose Pk	00254134 Alupent	BOE	12.2900
287	Orciprenaline Sulfate 5% Inh Sol-10mL Pk	00003859 Alupent	BOE	8.8600
288	Orciprenaline Sulfate 2mg/mL O/L	00249920 Alupent	BOE	.0579
289	Orciprenaline Sulfate 20mg Tab	00003891 Alupent	BOE	.2254
290	Procaterol HCl Hemihydrate 10mcg/met dose AeroInh-200dose Pk	00846414 Pro-Air	PDA	14.9200
291	Pseudoephedrine HCl 6mg/mL O/L	00004561 Sudafed 00425516 Robidrine	BWE ROB	.0250
292	Pseudoephedrine HCl 60mg Tab	00004766 Sudafed 00342726 Robidrine	BWE ROB	.0743
293	Salbutamol Inh-200 dose Pk	00790419 Apo-Salvent 00851841 Salbutamol Inhaler 00867179 Ventolin	APX KNR GLA	6.0000
294	Salbutamol 200mcg/Cart Inh Pd	00622060 Ventolin Rotacaps	GLA	.1574
295	Salbutamol 400mcg/Cart Inh Pd	00622079 Ventolin Rotacaps	GLA	.2230
296	Salbutamol 1mg/mL Inh Sol-2.5mL Pk	00667242 Ventolin Nebules	GLA	.8930
297	Salbutamol 5mg/mL Inh Sol-10mL Pk	00334227 Ventolin 00860808 Salbutamol Respirator Solution	GLA KNR	8.3055
298	Salbutamol 0.25mg/5mL Inj Sol	00602914 Ventolin	GLA	.9524
299	Salbutamol 2.5mg/5mL Inj Sol	00602922 Ventolin	GLA	1.0012
300	Salbutamol 0.4mg/mL O/L	00670790 Ventolin	GLA	.0629
301	Salbutamol 2mg Tab	00361135 Ventolin 00620955 Novo-Salmol 00637793 Salbutamol	GLA NOP EVM	.0650
302	Salbutamol 4mg Tab	00332267 Ventolin 00620963 Novo-Salmol 00637807 Salbutamol	GLA NOP EVM	.1075

Item 12:00 Autonomic Agents

12:12:00 Sympathomimetic (Adrenergic) Agents

303	Salbutamol Sulfate 200mcg/blister Pd Inh-120 dose Pk	00832766 Ventodisk Diskhaler	GLA	18.8800
304	Salbutamol Sulfate 400mcg/blister Pd Inh-120 dose Pk	00832758 Ventodisk Diskhaler	GLA	26.7500
305	Terbutaline Sulfate Inh-400 dose Pk	00444774 Bricanyl Spacer Inhaler	AST	17.6000
306	Terbutaline Sulfate Inh-400 dose Pk	00818739 Bricanyl Inhaler	AST	17.6000
307	Terbutaline Sulfate 0.5mg/dose Inh 200 dose Pk	+00786616 Bricanyl Turbuhaler	AST	14.3000
308	Terbutaline Sulfate 2.5mg Tab	00335355 Bricanyl	AST	.1490
309	Terbutaline Sulfate 5mg Tab	00335363 Bricanyl	AST	.1965

12:16:00 Sympatholytic (Adrenergic Blocking) Agents

310	Ergotamine & Pentobarbital Compound Sup	00176214 Cafergot-PB	SAN	2.1750
311	Ergotamine & Pentobarbital Compound Tab	00176222 Cafergot-PB	SAN	.6200
312	Ergotamine Tartrate 2mg SL Tab	00328952 Ergomar	FIS	.7033
313	Ergotamine Tartrate 1mg Tab	00027405 Gynergen	SAN	.5350
314	Ergotamine Tartrate & Caffeine 1mg & 100mg Tab	00176095 Cafergot	SAN	.5335
315	Methysergide Bimaleate 2mg Tab	00027499 Sansert	SAN	.6370
316	Pizotyline 0.5mg Tab	00329320 Sandomigran	SAN	.3354
317	Pizotyline 1mg Tab	00511552 Sandomigran DS	SAN	.5725

12:20:00 Skeletal Muscle Relaxants

318	Baclofen 10mg Tab	00455881 Lioresal 00808520 Alpha-Baclofen	GEI GEN	.2970
319	Baclofen 20mg Tab	00636576 Lioresal DS 00849456 Alpha-Baclofen	GEI GEN	.5800
320	Cyclobenzaprine HCl 10mg Tab	00782742 Flexeril	FRS	.5269

Item 12:00 Autonomic Agents

12:20:00 Skeletal Muscle Relaxants

321	Dantrolene Sodium 25mg Cap	00452513 Dantrium	EAT	.3252
322	Dantrolene Sodium 100mg Cap	00452521 Dantrium	EAT	.6615
323	Orphenadrine Citrate 60mg/2mL Inj Sol-2mL Pk	00171468 Norflex	RIK	7.4167
324	Orphenadrine Citrate 100mg Tab	00171476 Norflex	RIK	.5825

Item 20:00 Blood Formation and Coagulation

20:04:00 Antianemia Drugs

325	Ferrous Fumarate 300mg Cap otc 30 Pk	00446483 Palafer	BEE	10.9000
326	Ferrous Fumarate 60mg/mL O/L	00437018 Palafer	BEE	.0778
327	* Ferrous Fumarate 200mg Tab otc 100 Pk	00021431 Novo-Fumar	NOP	3.8000
328	Ferrous Fumarate (Pediatric) 60mg/mL O/L	00590630 Palafer Pediatric Drops	BEE	.1227
329	* Ferrous Gluconate 300mg Tab otc 100 Pk	00021458 Novo-Ferrogluc 00031097 Ferrous Gluconate 00041157 Ferrous Gluconate 00094714 Ferrous Gluconate 00545031 Apo-Ferrous Gluconate	NOP WAM LEA DTC APX	2.6000
330	Ferrous Succinate 100mg Tab otc 30 Pk	00677981 Cerevon	BWE	6.7500
331	Ferrous Sulfate 125mg/mL O/L	00017841 Fer-in-Sol	MJO	.1964
332	Iron Dextran 50mg/mL Inj Sol-2mL Pk	00009598 Imferon	FIS	2.7940

20:12:00 Coagulants and Anti-Coagulants

333	Heparin Calcium 25000IU/mL Inj Sol-0.8mL Pk	00740527 Calcilean	OTK	6.4750
334	Heparin Sodium 10000USP U/10mL Inj Sol-10mL Pk	00304042 Heparin 00740519 Hepalean	GLA OTK	2.1440 2.5750
335	Heparin Sodium 50000USP U/5mL Inj Sol-5mL Pk	00304050 Heparin 00740497 Hepalean	GLA OTK	5.3410 4.5600
336	Heparin Sodium 25000USP U/mL Inj Sol-2mL Pk	00740535 Hepalean	OTK	10.8000
337	Nicoumalone 1mg Tab	00010383 Sintrom	GEI	.1187
338	Nicoumalone 4mg Tab	00010391 Sintrom	GEI	.3732
339	Warfarin 2.5mg Tab	00585645 Coumadin	DUP	.2150
340	Warfarin 5mg Tab	00010308 Warfilone 00585629 Coumadin	FRS DUP	.1668 .2257
341	Warfarin 10mg Tab	00585637 Coumadin	DUP	.4131

Item 24:00 Cardiovascular Drugs

24:04:00 Cardiac Drugs

342	Acebutolol HCl 100mg Tab	00695645 Monitan 00726559 Sectral	WYE RPP	.2538
343	Acebutolol HCl 200mg Tab	00695653 Monitan 00726567 Sectral	WYE RPP	.3798
344	Acebutolol HCl 400mg Tab	+00771333 Sectral +00771341 Monitan	RPP WYE	.7545
345	Amiodarone HCl 200mg Tab	00705934 Cordarone	AYE	1.9187
346	Atenolol 50mg Tab	00520683 Tenormin 00773689 Apo-Atenol +00886114 Nu-Atenol	ICI APX NXP	.4435
347	Atenolol 100mg Tab	00486833 Tenormin 00773697 Apo-Atenol +00886122 Nu-Atenol	ICI APX NXP	.7300
348	Digoxin 0.05mg/mL Inj Sol-1mL Pk	00004456 Lanoxin	BWE	2.9000
349	Digoxin 0.50mg/2mL Inj Sol-2mL Pk	00004464 Lanoxin	BWE	2.9000
350	Digoxin 0.05mg/mL O/L	00242713 Lanoxin	BWE	.1410
351	Digoxin 0.0625mg Tab	00731269 Lanoxin	BWE	.0860
352	Digoxin 0.125mg Tab	00035319 Lanoxin	BWE	.0778
353	Digoxin 0.25mg Tab	00004685 Lanoxin	BWE	.0778
354	Diltiazem HCl 60mg LA Cap	00728314 Cardizem-SR	NRD	.6625
355	Diltiazem HCl 90mg LA Cap	00728322 Cardizem-SR	NRD	.8705
356	Diltiazem HCl 120mg LA Cap	00728330 Cardizem-SR	NRD	1.1550
357	Diltiazem HCl 30mg Tab	00587753 Cardizem 00771376 Apo-Diltiaz 00862924 Novo-Diltiazem +00886068 Nu-Diltiaz +00888524 Syn-Diltiazem	NRD APX NOP NXP SYP	.2725

Item 24:00 Cardiovascular Drugs

24:04:00 Cardiac Drugs

358	Diltiazem HCl 60mg Tab	00587761 Cardizem 00771384 Apo-Diltiaz 00862932 Novo-Diltazem +00886076 Nu-Diltiaz +00888532 Syn-Diltiazem	NRD APX NOP NXP SYP	.4782
359	Disopyramide 100mg Cap	00382876 Rythmodan 00396370 Norpace	ROU SEA	.2051
360	Disopyramide 150mg Cap	00396389 Norpace 00439363 Rythmodan	SEA ROU	.2901
361	Disopyramide 150mg LA Tab	00584231 Norpace CR	SEA	.5125
362	Disopyramide 250mg LA Tab	00619760 Rythmodan L.A.	ROU	.6735
363	Flecainide Acetate 100mg Tab	00628220 Tambocor	RIK	.9450
364	Labetalol HCl 100mg/20mL Inj Sol-20mL Pk	00600822 Trandate	GLA	16.6460
365	Labetalol HCl 100mg Tab	00603651 Trandate	GLA	.2176
366	Labetalol HCl 200mg Tab	00603643 Trandate	GLA	.3848
367	Metoprolol Tartrate 100mg LA Tab	00658855 Lopresor SR	GEI	.3477
368	Metoprolol Tartrate 200mg LA Tab	00497827 Betaloc Durules 00534560 Lopresor SR	AST GEI	.6453 .5906
369	Metoprolol Tartrate 50mg Tab	00397423 Lopresor 00402605 Betaloc 00618632 Apo-Metoprolol 00648035 Novo-Metoprol 00749354 Apo-Metoprolol (Type L) 00842648 Novo-Metoprol (Uncoated) +00865605 Nu-Metop	GEI AST APX NOP APX NOP NXP	.1290

Item 24:00 Cardiovascular Drugs

24:04:00 Cardiac Drugs

370	Metoprolol Tartrate 100mg Tab	00397431 Lopresor 00402540 Betaloc 00618640 Apo-Metoprolol 00648043 Novo-Metoprol 00751170 Apo-Metoprolol (Type L) 00842656 Novo-Metoprol (Uncoated) +00865613 Nu-Metop	GEI AST APX NOP APX NOP NXP	.2340
371	Mexiletine HCl 100mg Cap	00599956 Mexitil	BOE	.4780
372	Mexiletine HCl 200mg Cap	00599964 Mexitil	BOE	.6402
373	Nadolol 40mg Tab	00607126 Corgard 00782505 Apo-Nadol 00851663 Syn-Nadolol	SQU APX SYP	.3410
374	Nadolol 80mg Tab	00463256 Corgard 00782467 Apo-Nadol 00851671 Syn-Nadolol	SQU APX SYP	.4621
375	Nadolol 160mg Tab	00523372 Corgard 00782475 Apo-Nadol 00851698 Syn-Nadolol	SQU APX SYP	.8670
376	Nifedipine 5mg Cap	00613258 Adalat 00725110 Apo-Nifed	MIT APX	.2885
377	Nifedipine 10mg Cap	00557633 Adalat 00755907 Apo-Nifed 00756830 Novo-Nifedin +00865591 Nu-Nifed	MIT APX NOP NXP	.3573
378	Nifedipine 10mg Tab	00852082 Adalat FT	MIT	.3360
379	Pindolol 5mg Tab	00417270 Visken 00755877 Apo-Pindol 00818615 Syn-Pindolol +00869007 Novo-Pindol +00886149 Nu-Pindol	SAN APX SYP NOP NXP	.2872
380	Pindolol 10mg Tab	00443174 Visken 00755885 Apo-Pindol 00818593 Syn-Pindolol +00886009 Nu-Pindol	SAN APX SYP NXP	.4961

Item 24:00 Cardiovascular Drugs

24:04:00 Cardiac Drugs

381	Pindolol 15mg Tab	00417289 Visken 00755893 Apo-Pindol 00818607 Syn-Pindolol +00886130 Nu-Pindol	SAN APX SYP NXP	.7280
382	Procainamide HCl 250mg Cap	00029076 Pronestyl 00713325 Apo-Procainamide	SQU APX	.1771
383	Procainamide HCl 375mg Cap	00296031 Pronestyl 00713333 Apo-Procainamide	SQU APX	.2311
384	Procainamide HCl 500mg Cap	00353523 Pronestyl 00713341 Apo-Procainamide	SQU APX	.3073
385	Procainamide HCl 100mg/10mL Inj Sol-10mL Pk	00029181 Pronestyl	SQU	9.4000
386	Procainamide HCl 250mg LA Tab	00638692 Procan SR	PDA	.2564
387	Procainamide HCl 500mg LA Tab	00638676 Procan SR 00639885 Pronestyl SR	PDA SQU	.4713 .4380
388	Procainamide HCl 750mg LA Tab	00638684 Procan SR	PDA	.6363
389	Propafenone HCl 150mg Tab	00603708 Rythmol	KNL	.6420
390	Propafenone HCl 300mg Tab	00603716 Rythmol	KNL	1.1320
391	Propranolol 80mg LA Cap	00566950 Inderal L.A.	AYE	.5270
392	Propranolol 120mg LA Cap	00587931 Inderal L.A.	AYE	.7499
393	Propranolol 160mg LA Cap	00511668 Inderal L.A.	AYE	.9572
394	Propranolol 10mg Tab	00002658 Inderal 00402788 Apo-Propranolol 00496480 Novo-Pranol 00523402 Propranolol 00582255 PMS-Propranolol	AYE APX NOP DTC PMS	.0202
395	Propranolol 20mg Tab	00489859 Inderal-20 00663719 Apo-Propranolol 00740675 Novo-Pranol	AYE APX NOP	.0384

Item 24:00 Cardiovascular Drugs

24:04:00 Cardiac Drugs

396	Propranolol 40mg Tab	00002666 Inderal 00402753 Apo-Propranolol 00496499 Novo-Pranol 00523399 Propranolol 00582263 PMS-Propranolol	AYE APX NOP DTC PMS	.0366
397	Propranolol 80mg Tab	00313602 Inderal 00402761 Apo-Propranolol 00496502 Novo-Pranol 00523380 Propranolol 00582271 PMS-Propranolol	AYE APX NOP DTC PMS	.0616
398	Propranolol 120mg Tab	00456578 Inderal 00504335 Apo-Propranolol 00549657 Novo-Pranol 00582298 PMS-Propranolol	AYE APX NOP PMS	.1174
399	Quinidine Bisulfate 250mg Tab	00249580 Biquin Durules	AST	.3741
400	Quinidine Gluconate 324mg LA Tab	00704644 Quinaglute-Duratabs	BER	.7254
401	Quinidine Gluconate 325mg Tab	00311731 Quinate	ROG	.3850
402	Quinidine Polygalacturonate 275mg Tab	00026131 Cardioquin	PFR	.4600
403	Quinidine Sulfate 300mg LA Tab	00346837 Quinidex Extentabs	ROB	.3756
404	Quinidine Sulfate 200mg Tab	00004782 Quinidine 00021733 Novo-Quinidin 00023868 Quinidine 00026883 Quinidine 00094412 Quinidine 00441740 Apo-Quinidine Sulfate	BWE NOP PDA ROG DTC APX	.0658
405	Sotalol HCl 160mg Tab	00483923 Sotacor	BRI	.9560
406	Timolol Maleate 5mg Tab	00353914 Blocadren 00755842 Apo-Timol	FRS APX	.1768
407	Timolol Maleate 10mg Tab	00353922 Blocadren 00755850 Apo-Timol	FRS APX	.2754
408	Timolol Maleate 20mg Tab	00495611 Blocadren 00755869 Apo-Timol	FRS APX	.5340

Item 24:00 Cardiovascular Drugs

24:04:00 Cardiac Drugs

409	Verapamil HCl 80mg Tab	00554316 Isoptin +00782483 Apo-Verap +00812331 Novo-Veramil 00867365 Verapamil	SEA APX NOP KNR	.3829
410	Verapamil HCl 120mg Tab	00554324 Isoptin +00782491 Apo-Verap +00812358 Novo-Veramil 00867373 Verapamil	SEA APX NOP KNR	.5853

24:06:00 Antilipemic Drugs

411	Cholestyramine Resin 440mg/g Oral Pd-378g Pk	00634093 Questran	BRI	30.4500
412	Cholestyramine Resin 440mg/g Oral Pd- 9g Pouch Pk	00464880 Questran	BRI	1.0150
413	Clofibrate 500mg Cap	00002038 Atromid-S 00337382 Novo-Fibrate 00409472 Claripex	AYE NOP ICN	.0497
414	Colestipol HCl Gran 5g Pk	00642975 Colestid	UPJ	.7866
415	Gemfibrozil 300mg Cap	00599026 Lopid +00851922 Gemfibrozil	PDA CIL	.4235
416	Lovastatin 20mg Tab	00795860 Mevacor	MSD	1.6356
417	Sodium Dextrothyroxine 2mg Tab	00273015 Choloxin	FLI	.7155
418	Sodium Dextrothyroxine 4mg Tab	00009636 Choloxin	FLI	.8295

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

419	Acebutolol HCl 100mg Tab	00695645 Monitan 00726559 Sectral	WYE RPP	.2538
420	Acebutolol HCl 200mg Tab	00695653 Monitan 00726567 Sectral	WYE RPP	.3798
421	Acebutolol HCl 400mg Tab	+00771333 Sectral +00771341 Monitan	RPP WYE	.7545
422	Amiloride HCl & Hydrochlorothiazide 5mg & 50mg Tab	00487813 Moduret 00784400 Apo-Amilzide +00886106 Nu-Amilzide	MSD APX NXP	.2461

Item 24:00 Cardiovascular Drugs

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

423	Atenolol 50mg Tab	00520683 Tenormin 00773689 Apo-Atenol +00886114 Nu-Atenol	ICI APX NXP	.4435
424	Atenolol 100mg Tab	00486833 Tenormin 00773697 Apo-Atenol +00886122 Nu-Atenol	ICI APX NXP	.7300
425	Atenolol & Chlorthalidone 50 & 25mg Tab	00638625 Tenoretic 50/25	ICI	.5993
426	Atenolol & Chlorthalidone 100 & 25mg Tab	00638633 Tenoretic 100/25	ICI	.9821
427	Captopril 12.5mg Tab	00695661 Capoten +00893595 Apo-Capto	SQU APX	.2790
428	Captopril 25mg Tab	00546283 Capoten +00851833 Syn-Captopril +00893609 Apo-Capto	SQU SYP APX	.3746
429	Captopril 50mg Tab	00546291 Capoten +00851647 Syn-Captopril +00893617 Apo-Capto	SQU SYP APX	.6979
430	Captopril 100mg Tab	00546305 Capoten +00851655 Syn-Captopril +00893625 Apo-Capto	SQU SYP APX	1.2980
431	Chlorthalidone 50mg Tab	00010413 Hygroton 00298964 Uridon 00337447 Novo-Thalidone 00360279 Apo-Chlorthalidone 00398365 Chlorthalidone	GEI ICN NOP APX DTC	.0202
432	Chlorthalidone 100mg Tab	00010421 Hygroton #00293881 Uridon 00337455 Novo-Thalidone 00360287 Apo-Chlorthalidone 00398373 Chlorthalidone	GEI ICN NOP APX DTC	.0399
433	Clonidine HCl 0.1mg Tab	00259527 Catapres +00868949 Apo-Clonidine	BOE APX	.1860
434	Clonidine HCl 0.2mg Tab	00291889 Catapres +00868957 Apo-Clonidine	BOE APX	.3318
435	Debrisoquine Sulfate 10mg Tab	00255432 Declinax	HLR	.1465

Item 24:00 Cardiovascular Drugs

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

436	Diazoxide 300mg/20mL Inj Sol-20mL Pk	00269271 Hyperstat	SCH	60.5600
437	Diltiazem HCl 60mg LA Cap	00728314 Cardizem-SR	NRD	.6625
438	Diltiazem HCl 90mg LA Cap	00728322 Cardizem-SR	NRD	.8705
439	Diltiazem HCl 120mg LA Cap	00728330 Cardizem-SR	NRD	1.1550
440	Enalapril Maleate 5mg Tab	00708879 Vasotec	FRS	.7550
441	Enalapril Maleate 10mg Tab	00670901 Vasotec	FRS	.9072
442	Enalapril Maleate 20mg Tab	00670928 Vasotec	FRS	1.0949
443	Ethacrynic Acid 50mg Tab	00016497 Edecrin	MSD	.2994
444	Furosemide 20mg/2mL Inj Sol-2mL Pk	00217743 Lasix	HOE	.8600
445	Furosemide 10mg/mL O/L	00432342 Lasix	HOE	.2125
446	Furosemide 20mg Tab	00289590 Lasix 00337730 Novo-Semide 00396788 Apo-Furosemide	HOE NOP APX	.0074
447	Furosemide 40mg Tab	00012580 Lasix 00332275 Furoside 00337749 Novo-Semide 00344079 Uritol 00362166 Apo-Furosemide 00396249 Furosemide	HOE ICN NOP HOR APX DTC	.0079
448	Guanethidine Monosulfate 10mg Tab	00005509 Ismelin 00396745 Apo-Guanethidine	CIB APX	.0609
449	Guanethidine Monosulfate 25mg Tab	00005517 Ismelin 00396753 Apo-Guanethidine	CIB APX	.1164
450	Hydralazine HCl 20mg/mL Inj Sol-1mL Pk	00005274 Apresoline	CIB	3.8660
451	Hydralazine HCl 10mg Tab	00005525 Apresoline	CIB	.1361
452	Hydralazine HCl 25mg Tab	00005533 Apresoline 00759473 Novo-Hylazin	CIB NOP	.1745

Item 24:00 Cardiovascular Drugs

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

453	Hydralazine HCl 50mg Tab	00005541 Apresoline 00759481 Novo-Hylazin	CIB NOP	.2667
454	Hydrochlorothiazide 25mg Tab	00016500 HydroDIURIL 00021474 Novo-Hydrazide 00092681 Hydrochlorothiazide 00326844 Apo-Hydro 25	MSD NOP DTC APX	.0064
455	Hydrochlorothiazide 50mg Tab	00016519 HydroDIURIL 00021482 Novo-Hydrazide 00092703 Hydrochlorothiazide 00312800 Apo-Hydro 50	MSD NOP DTC APX	.0077
456	Hydrochlorothiazide & Spironolactone 25mg & 25mg Tab	00180408 Aldactazide-25 00613231 Novo-Spirozine-25	SEA NOP	.1065
457	Hydrochlorothiazide & Spironolactone 50mg & 50mg Tab	00594377 Aldactazide-50 00657182 Novo-Spirozine-50	SEA NOP	.2751
458	Hydrochlorothiazide & Triamterene 25mg & 50mg Tab	00181528 Dyazide 00441775 Apo-Triazide 00532657 Novo-Triamzide +00865532 Nu-Triazide	SKF APX NOP NXP	.0541
459	Indapamide 2.5mg Tab	00564966 Lozide	SEV	.4495
460	Labetalol HCl 100mg/20mL Inj Sol-20mL Pk	00600822 Trandate	GLA	16.6460
461	Labetalol HCl 100mg Tab	00603651 Trandate	GLA	.2176
462	Labetalol HCl 200mg Tab	00603643 Trandate	GLA	.3848
463	Methyldopa 125mg Tab	00016551 Aldomet 00337463 Novo-Medopa 00353620 Dopamet 00360252 Apo-Methyldopa 00456012 Methyldopa	MSD NOP ICN APX DTC	.0360
464	Methyldopa 250mg Tab	00016578 Aldomet 00250392 Dopamet 00337471 Novo-Medopa 00360260 Apo-Methyldopa 00456004 Methyldopa	MSD ICN NOP APX DTC	.0609

Item 24:00 Cardiovascular Drugs

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

465	Methyldopa 500mg Tab	00016586 Aldomet 00337498 Novo-Medopa 00353639 Dopamet 00426830 Apo-Methyldopa	MSD NOP ICN APX	.1215
466	Methyldopa & Hydrochlorothiazide 250mg & 15mg Tab	00140589 Aldoril-15 00363642 Novo-Doparil-15 00441708 Apo-Methazide-15 00584967 PMS-Dopazide-15	MSD NOP APX PMS	.0714
467	Methyldopa & Hydrochlorothiazide 250mg & 25mg Tab	00140597 Aldoril-25 00363634 Novo-Doparil-25 00441716 Apo-Methazide-25 00584975 PMS-Dopazide-25	MSD NOP APX PMS	.0738
468	Metolazone 2.5mg Tab	00301663 Zaroxolyn	PWC	.1324
469	Metolazone 5mg Tab	00301698 Zaroxolyn	PWC	.1739
470	Metolazone 10mg Tab	00301671 Zaroxolyn	PWC	.2298
471	Metoprolol Tartrate 100mg LA Tab	00658855 Lopresor SR	GEI	.3477
472	Metoprolol Tartrate 200mg LA Tab	00497827 Betaloc Durules 00534560 Lopresor SR	AST GEI	.6453 .5906
473	Metoprolol Tartrate 50mg Tab	00397423 Lopresor 00402605 Betaloc 00618632 Apo-Metoprolol 00648035 Novo-Metoprol 00749354 Apo-Metoprolol (Type L) 00842648 Novo-Metoprol (Uncoated) +00865605 Nu-Metop	GEI AST APX NOP APX NOP NXP	.1290
474	Metoprolol Tartrate 100mg Tab	00397431 Lopresor 00402540 Betaloc 00618640 Apo-Metoprolol 00648043 Novo-Metoprol 00751170 Apo-Metoprolol (Type L) 00842656 Novo-Metoprol (Uncoated) +00865613 Nu-Metop	GEI AST APX NOP APX NOP NXP	.2340
475	Minoxidil 2.5mg Tab	00514497 Loniten	UPJ	.3040

Item 24:00 Cardiovascular Drugs

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

476	Minoxidil 10mg Tab	00514500 Loniten	UPJ	.6700
477	Nadolol 40mg Tab	00607126 Corgard 00782505 Apo-Nadol 00851663 Syn-Nadolol	SQU APX SYP	.3410
478	Nadolol 80mg Tab	00463256 Corgard 00782467 Apo-Nadol 00851671 Syn-Nadolol	SQU APX SYP	.4621
479	Nadolol 160mg Tab	00523372 Corgard 00782475 Apo-Nadol 00851698 Syn-Nadolol	SQU APX SYP	.8670
480	Nifedipine 10mg LA Tab	00692727 Adalat Pa 10	MIT	.4493
481	Nifedipine 20mg LA Tab	00692735 Adalat Pa 20	MIT	.6975
482	Oxprenolol HCl 80mg LA Tab	00534579 Slow-Trasicor	CIB	.3758
483	Oxprenolol HCl 160mg LA Tab	00534587 Slow-Trasicor	CIB	.7517
484	Oxprenolol HCl 20mg Tab	00402567 Trasicor	CIB	.1385
485	Oxprenolol HCl 40mg Tab	00402575 Trasicor	CIB	.2479
486	Oxprenolol HCl 80mg Tab	00402583 Trasicor	CIB	.3757
487	Pindolol 5mg Tab	00417270 Visken 00755877 Apo-Pindol 00818615 Syn-Pindolol +00869007 Novo-Pindol +00886149 Nu-Pindol	SAN APX SYP NOP NXP	.2872
488	Pindolol 10mg Tab	00443174 Visken 00755885 Apo-Pindol 00818593 Syn-Pindolol +00886009 Nu-Pindol	SAN APX SYP NXP	.4961
489	Pindolol 15mg Tab	00417289 Visken 00755893 Apo-Pindol 00818607 Syn-Pindolol +00886130 Nu-Pindol	SAN APX SYP NXP	.7280
490	Pindolol & Hydrochlorothiazide 10mg & 25mg Tab	00568627 Viskazide 10/25	SAN	.7005

Item 24:00 Cardiovascular Drugs

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

491	Pindolol & Hydrochlorothiazide 10mg & 50mg Tab	00568635 Viskazide 10/50	SAN	.7005
492	Prazosin HCl 1mg Tab	00560952 Minipress +00882801 Apo-Prazo	PFI APX	.1702
493	Prazosin HCl 2mg Tab	00560960 Minipress +00882828 Apo-Prazo	PFI APX	.2308
494	Prazosin HCl 5mg Tab	00560979 Minipress +00882836 Apo-Prazo	PFI APX	.3335
495	Propranolol 80mg LA Cap	00566950 Inderal L.A.	AYE	.5270
496	Propranolol 120mg LA Cap	00587931 Inderal L.A.	AYE	.7499
497	Propranolol 160mg LA Cap	00511668 Inderal L.A.	AYE	.9572
498	Propranolol 10mg Tab	00002658 Inderal 00402788 Apo-Propranolol 00496480 Novo-Pranol 00523402 Propranolol 00582255 PMS-Propranolol	AYE APX NOP DTC PMS	.0202
499	Propranolol 20mg Tab	00489859 Inderal-20 00663719 Apo-Propranolol 00740675 Novo-Pranol	AYE APX NOP	.0384
500	Propranolol 40mg Tab	00002666 Inderal 00402753 Apo-Propranolol 00496499 Novo-Pranol 00523399 Propranolol 00582263 PMS-Propranolol	AYE APX NOP DTC PMS	.0366
501	Propranolol 80mg Tab	00313602 Inderal 00402761 Apo-Propranolol 00496502 Novo-Pranol 00523380 Propranolol 00582271 PMS-Propranolol	AYE APX NOP DTC PMS	.0616
502	Propranolol 120mg Tab	00456578 Inderal 00504335 Apo-Propranolol 00549657 Novo-Pranol 00582298 PMS-Propranolol	AYE APX NOP PMS	.1174
503	Propranolol & Hydrochlorothiazide 40mg & 25mg Tab	00465313 Inderide 40	AYE	.4370

Item 24:00 Cardiovascular Drugs

24:08:00 Hypotensive Drugs (For Diuretics See 40:28)

504	Propranolol & Hydrochlorothiazide 80mg & 25mg Tab	00465321 Inderide 80	AYE	.6768
505	Reserpine 0.1mg Tab	00093211 Reserpine	DTC	.0295
506	Reserpine 0.25mg Tab	00005665 Serpasil 00021784 Novo-Reserpine 00093238 Reserpine	CIB NOP DTC	.0110
507	Sodium Nitroprusside Dihydrate Inj Pd-50mg Pk	00336459 Nipride	HLR	14.5800
508	Sotalol HCl 160mg Tab	00483923 Sotacor	BRI	.9560
509	Spironolactone 25mg Tab	00028606 Aldactone 00613215 Novo-Spiroton	SEA NOP	.0857
510	Spironolactone 100mg Tab	00285455 Aldactone 00613223 Novo-Spiroton	SEA NOP	.2625
511	Terazosin HCl 1mg Tab	00818658 Hytrin	ABB	.5513
512	Terazosin HCl 2mg Tab	00818682 Hytrin	ABB	.6356
513	Terazosin HCl 5mg Tab	00818666 Hytrin	ABB	.8625
514	Timolol Maleate 5mg Tab	00353914 Blocadren 00755842 Apo-Timol	FRS APX	.1768
515	Timolol Maleate 10mg Tab	00353922 Blocadren 00755850 Apo-Timol	FRS APX	.2754
516	Timolol Maleate 20mg Tab	00495611 Blocadren 00755869 Apo-Timol	FRS APX	.5340
517	Timolol Maleate & Hydrochlorothiazide 10mg & 25mg Tab	00509353 Timolide	FRS	.4051
518	Verapamil HCl 240mg LA Tab	00742554 Isoptin SR	SEA	1.3340

24:12:00 Vasodilating Drugs

519	Isosorbide Dinitrate 20mg LA Tab	00740721 Cedocard SR 00786683 Coradur-SR	PMS GLA	.3150
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Item 24:00 Cardiovascular Drugs

24:12:00 Vasodilating Drugs

520	Isosorbide Dinitrate 5mg SL Tab	00243116 Isordil 00446661 Coronex +00670944 Apo-ISDN	WYE AYE APX	.0398
521	Isosorbide Dinitrate 10mg Tab	00208973 Isordil 00441686 Apo-ISDN 00446688 Coronex 00458686 Novo-Sorbide	WYE APX AYE NOP	.0188
522	Isosorbide Dinitrate 30mg Tab	00279536 Isordil 00441694 Apo-ISDN 00446696 Coronex 00458694 Novo-Sorbide	WYE APX AYE NOP	.0403
523	Nitroglycerin 1mg LA Tab	00749362 Nitrogard-SR	AST	.1735
524	Nitroglycerin 2mg LA Tab	00749397 Nitrogard-SR	AST	.2090
525	Nitroglycerin 3mg LA Tab	00749389 Nitrogard-SR	AST	.2435
526	Nitroglycerin 5mg LA Tab	00749370 Nitrogard-SR	AST	.3135
527	Nitroglycerin 2% Oint	00442925 Nitro-Bid 00525529 Nitrong 00608785 Nitrol	ROU RPP ROR	.1675 .1497 .1902
528	Nitroglycerin 0.4mg/metered dose Spray-200 dose Pk	00695726 Nitrolingual	ROR	11.6000
529	Nitroglycerin 0.3mg SL Tab-100 Pk	00037613 Nitrostat	PDA	2.5000
530	* Nitroglycerin 0.6mg SL Tab-100 Pk	00037621 Nitrostat	PDA	2.5000
531	Pentaerythritol Tetranitrate 10mg Tab	00476595 Peritrate	PDA	.1138
532	Pentaerythritol Tetranitrate 20mg Tab	00476609 Peritrate	PDA	.1533
533	Pentaerythritol Tetranitrate 80mg Tab	00476579 Peritrate Forte	PDA	.2723

Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

534	Acetaminophen 16mg/mL O/L	00658049 Robigesic	ROB	.0294
535	Acetaminophen 80mg/mL O/L	00631353 Atasol 00642401 Temptra	HOR MJO	.1646
536	Acetaminophen 120mg Sup	00553328 Abenol	BEE	.5192
537	Acetaminophen 325mg Sup	00646156 Abenol	BEE	.6592
538	Acetaminophen 650mg Sup	00553336 Abenol	BEE	.7533
539	* Acetaminophen 325mg Tab	00277193 Rounox 00293482 Atasol 00330876 Robigesic 00361046 Acetaminophen 00374148 Acetaminophen 00389218 Novo-Gesic 00522511 Panadol 00544981 Apo-Acetaminophen 00589241 Acetaminophen	ROG HOR ROB SDR WAM NOP STP APX DPC	.0120
540	* Acetaminophen 500mg Tab	00013668 Atasol Forte 00482323 Novo-Gesic Forte 00524891 Panadol Extra Strength 00545007 Apo-Acetaminophen 00567663 Acetaminophen 00589233 Acetaminophen Extra Strength 00594814 Acetaminophen	HOR NOP STP APX WAM DPC SDR	.0157
541	Acetaminophen & Codeine Phosphate 160mg & 8mg/5mL O/L	00685143 Tylenol with Codeine	MCN	.0740
542	Acetaminophen & Codeine Phosphate 300mg & 30mg Tab	00608882 Emtec-30 00666130 Empracet-30	TCH BWE	.0472
543	Acetaminophen & Codeine Phosphate 300mg & 60mg Tab	00396516 Tylenol No.4 00621463 Lenoltec No.4 00666149 Empracet-60	MCN TCH BWE	.1699
544	Acetaminophen Compound with Codeine 15mg Tab	00293504 Atasol-15 00372331 Exdol-15 00425370 Tylenol No.2 00653241 Lenoltec No.2 00687200 Novo-Gesic C-15	HOR FRS MCN TCH NOP	.0326

Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

545	Acetaminophen Compound with Codeine 30mg Tab	00293512 Atasol-30 00372358 Exdol-30 00425389 Tylenol No.3 00653276 Lenoltec No.3 00687219 Novo-Gesic C-30	HOR FRS MCN TCH NOP	.0354
546	* Acetylsalicylic Acid 325mg Ent Tab	00010332 Entrophen 00216666 Novasen	FRS NOP	.0154
547	* Acetylsalicylic Acid 650mg Ent Tab	00010340 Entrophen 00229296 Novasen	FRS NOP	.0255
548	Acetylsalicylic Acid 975mg Ent Tab	00419508 Entrophen	FRS	.0758
549	Acetylsalicylic Acid 150mg Sup	#00451738 Sal-Infant	BEE	.5375
550	Acetylsalicylic Acid 160mg Sup	00377961 Supasa	NRD	.5785
551	Acetylsalicylic Acid 320mg Sup	00315117 Supasa	NRD	.6550
552	Acetylsalicylic Acid 640mg Sup	00315133 Supasa	NRD	.7741
553	Acetylsalicylic Acid 650mg Sup	#00451746 Sal-Adult	BEE	.6833
554	* Acetylsalicylic Acid 325mg Tab otc 500 Pk	00036145 ASA 00040851 ASA 00092754 ASA	WAM LEA DTC	5.2000
555	Acetylsalicylic Acid & Codeine 325mg & 30mg Tab	00406112 Coryphen 325-30	ROG	.2230
556	Acetylsalicylic Acid & Codeine 650mg & 30mg Tab	00406104 Coryphen 650-30	ROG	.3200
557	Acetylsalicylic Acid Compound with Codeine 15mg Tab	00095508 AC & C 00108103 282	DTC FRS	.0435
558	Acetylsalicylic Acid Compound with Codeine 30mg Tab	00095516 AC & C 00219843 292	DTC FRS	.0630
559	Anileridine HCl 25mg Tab	00010014 Leritine	FRS	.3340
560	Anileridine Phosphate 25mg/mL Inj Sol-1mL Pk	00009857 Leritine	FRS	1.8032

Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

561	Choline Salicylate & Magnesium Salicylate Tab	00449636 Trilisate	PFR	.1855
562	Codeine Phosphate 30mg/mL Inj Sol-1mL Pk	#00303879 Codeine	GLA	.5716
563	Codeine Phosphate 5mg/mL O/L	00093114 Codeine 00470651 Codeine Phosphate 00779474 Codeine	DTC SDR NDA	.0188
564	Codeine Phosphate 15mg Tab	00003220 Codeine 00018686 Codeine 00093122 Codeine 00593435 Codeine Phosphate	GLA NDA DTC TCH	.0521
565	Codeine Phosphate 30mg Tab	00003239 Codeine 00018694 Codeine 00093130 Codeine 00593451 Codeine Phosphate	GLA NDA DTC TCH	.0743
566	Codeine Phosphate 60mg Tab	00003247 Codeine 00093149 Codeine	GLA DTC	.1950
567	Diclofenac Sodium 25mg Ent Tab	00514004 Voltaren 00808539 Novo-Difenac +00839175 Apo-Diclo	GEI NOP APX	.2138
568	Diclofenac Sodium 50mg Ent Tab	00514012 Voltaren 00808547 Novo-Difenac +00839183 Apo-Diclo	GEI NOP APX	.4275
569	Diclofenac Sodium 100mg LA Tab	00590827 Voltaren SR	GEI	1.2476
570	Diclofenac Sodium 50mg Sup	00632724 Voltaren	GEI	.9500
571	Diclofenac Sodium 100mg Sup	00632732 Voltaren	GEI	1.2793
572	Diflunisal 250mg Tab	00587699 Dolobid	FRS	.5335
573	Diflunisal 500mg Tab	00576131 Dolobid	FRS	.6529
574	Fenoprofen Calcium 300mg Cap	00328642 Nalfon	LIL	.2714
575	Fenoprofen Calcium 600mg Tab	00345504 Nalfon	LIL	.4923

Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

576	Floctafenine 200mg Tab	01902717 Idarac	WIN	.3482
577	Floctafenine 400mg Tab	01902725 Idarac	WIN	.6064
578	Flurbiprofen 50mg Tab	00593346 Froben 00647942 Ansaïd	ORG UPJ	.3665 .4363
579	Flurbiprofen 100mg Tab	00593354 Froben 00600792 Ansaïd	ORG UPJ	.4895 .5970
580	Hydromorphone HCl 1mg/mL Oral Sol	00786535 Dilaudid	KNL	.0931
581	Hydromorphone HCl 2mg/mL Inj Sol-1mL Pk	00627100 Dilaudid	KNL	1.2000
582	Hydromorphone HCl 10mg/mL Inj Sol-1mL Pk	00622133 Dilaudid-HP	KNL	3.1800
583	Hydromorphone HCl 3mg Sup	00125105 Dilaudid	KNL	2.6000
584	Hydromorphone HCl 1mg Tab	00705438 Dilaudid	KNL	.1370
585	Hydromorphone HCl 2mg Tab	00125083 Dilaudid	KNL	.2060
586	Hydromorphone HCl 4mg Tab	00125121 Dilaudid	KNL	.3200
587	Hydromorphone HCl 8mg Tab	00786543 Dilaudid	KNL	.5040
588	Ibuprofen 200mg Tab	00441643 Apo-Ibuprofen 00629324 Novo-Profen	APX NOP	.0308
589	Ibuprofen 300mg Tab	00327794 Motrin 00441651 Apo-Ibuprofen 00606200 Ibuprofen 00629332 Novo-Profen	UPJ APX KNR NOP	.0370
590	Ibuprofen 400mg Tab	00364142 Motrin 00506052 Apo-Ibuprofen 00606219 Ibuprofen 00629340 Novo-Profen	UPJ APX KNR NOP	.0480
591	Ibuprofen 600mg Tab	00484911 Motrin 00585114 Apo-Ibuprofen 00606227 Ibuprofen 00629359 Novo-Profen	UPJ APX KNR NOP	.0612

Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

592	Indomethacin 25mg Cap	00016039 Indocid 00337420 Novo-Methacin 00611158 Apo-Indomethacin +00865850 Nu-Indo	MSD NOP APX NXP	.1134
593	Indomethacin 50mg Cap	00016047 Indocid 00337439 Novo-Methacin 00611166 Apo-Indomethacin +00865869 Nu-Indo	MSD NOP APX NXP	.1963
594	Indomethacin 75mg LA Cap	00463248 Indocid SR	MSD	1.0070
595	Indomethacin 50mg Sup	00594466 Indocid	MSD	.9950
596	Indomethacin 100mg Sup	00016233 Indocid	MSD	1.3370
597	Ketoprofen 50mg Cap	00336440 Orudis 00761664 Rhodis 00790427 Apo-Keto	RPP RHP APX	.1966
598	Ketoprofen 50mg Ent Tab	00566888 Orudis E- 50 +00761672 Rhodis-EC	RPP RHP	.1966
599	Ketoprofen 100mg Ent Tab	00663735 Orudis E-100 +00761680 Rhodis-EC	RPP RHP	.3931
600	Ketoprofen 200mg LA Tab	00817201 Orudis SR-200	RPP	1.3652
601	Ketoprofen 100mg Sup	00499544 Orudis 00761699 Rhodis	RPP RHP	1.4407
602	Levorphanol Tartrate 2mg/mL Inj Sol-1mL Pk	00012904 Levo-Dromoran	HLR	1.5750
603	Levorphanol Tartrate 2mg Tab	00013366 Levo-Dromoran	HLR	.2360
604	Mefenamic Acid 250mg Cap	00155225 Ponstan	PDA	.5037
605	Meperidine HCl 50mg/mL Inj Sol-1mL Pk	00036242 Demerol	WIN	.2668
606	Meperidine HCl 75mg/mL Inj Sol-1mL Pk	00033294 Demerol	WIN	.2904
607	Meperidine HCl 100mg/mL Inj Sol-1mL Pk	00033308 Demerol	WIN	.3144

Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

608	Meperidine HCl 1500mg/30mL Inj Sol-30mL Pk	00990493 Demerol	WIN	5.6700
609	Meperidine HCl 50mg Tab	00033685 Demerol	WIN	.1014
610	Morphine HCl 1mg/mL O/L	00486582 M.O.S. 00607762 Morphitec- 1	ICN TCH	.0208
611	Morphine HCl 5mg/mL O/L	00514217 M.O.S. 00607770 Morphitec- 5	ICN TCH	.0809
612	Morphine HCl 10mg/mL O/L	00632503 M.O.S. 00690783 Morphitec-10	ICN TCH	.1911
613	Morphine HCl 20mg/mL O/L	00632481 M.O.S. 00690791 Morphitec-20	ICN TCH	.5037
614	Morphine HCl 50mg/mL O/L	00690236 M.O.S. Conc 50	ICN	1.1635
615	Morphine HCl 10mg Sup	00624268 M.O.S.	ICN	1.7549
616	Morphine HCl 20mg Sup	00624276 M.O.S.	ICN	2.1044
617	Morphine HCl 30mg Sup	00636681 M.O.S.	ICN	2.3321
618	Morphine HCl 10mg Tab	00690198 M.O.S.-10	ICN	.2644
619	Morphine HCl 20mg Tab	00690201 M.O.S.-20	ICN	.3037
620	Morphine HCl 40mg Tab	00690228 M.O.S.-40	ICN	.3946
621	Morphine HCl 60mg Tab	00690244 M.O.S.-60	ICN	.5479
622	Morphine Sulfate 15mg/mL Inj Sol-1mL Pk	00335371 Morphine	GLA	.5214
623	Morphine Sulfate 50mg/mL Inj Sol-1mL Pk	00617288 Morphine HP-50	SAB	2.9950
624	Morphine Sulfate 15mg LA Tab	00665134 MS Contin	PFR	.5550
625	Morphine Sulfate 30mg LA Tab	00665142 MS Contin	PFR	.8380
626	Morphine Sulfate 60mg LA Tab	00665150 MS Contin	PFR	1.4770

Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

627	Morphine Sulfate 100mg LA Tab	00665169 MS Contin	PFR	2.2520
628	Morphine Sulfate 1mg/mL O/L	00591467 Statex	PMS	.0242
629	Morphine Sulfate 5mg/mL O/L	00591475 Statex	PMS	.0771
630	Morphine Sulfate 20mg/mL Oral Drops	00621935 Statex	PMS	.3700
631	Morphine Sulfate 5mg Tab	00594652 Statex	PMS	.1155
632	Morphine Sulfate 10mg Tab	00594644 Statex	PMS	.1705
633	Morphine Sulfate 25mg Tab	00594636 Statex	PMS	.2205
634	Morphine Sulfate 50mg Tab	00675962 Statex	PMS	.3360
635	Naproxen 25mg/mL O/L	00587923 Naprosyn	SYN	.0574
636	Naproxen 500mg Sup	00531022 Naprosyn	SYN	1.2333
637	Naproxen 125mg Tab	00299413 Naprosyn 00522678 Apo-Naproxen 00565369 Novo-Naprox 00615307 Naxen +00865621 Nu-Naprox	SYN APX NOP SYP NXP	.0640
638	Naproxen 250mg Tab	00335193 Naprosyn 00522651 Apo-Naproxen 00565350 Novo-Naprox 00615315 Naxen +00865648 Nu-Naprox	SYN APX NOP SYP NXP	.1300
639	Naproxen 375mg Tab	00583367 Naprosyn 00600806 Apo-Naproxen 00615323 Naxen 00627097 Novo-Naprox +00865656 Nu-Naprox	SYN APX SYP NOP NXP	.1780
640	Naproxen 500mg Tab	00525537 Naprosyn 00589861 Novo-Naprox 00592277 Apo-Naproxen 00615331 Naxen +00865664 Nu-Naprox	SYN NOP APX SYP NXP	.2580
641	Naproxen 750mg Tab	+00788767 Naprosyn SR	SYN	1.1500

Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

642	Oxycodone HCl & Acetaminophen 5mg & 325mg Tab	00574384 Endocet 00580201 Percocet 00608165 Oxycocet	END DUP TCH	.1380
643	Oxycodone HCl & Acetylsalicylic Acid 5mg & 325mg Tab	00574392 Endodan 00580236 Percodan 00608157 Oxycodan	END DUP TCH	.1680
644	Oxymorphone HCl 1.5mg/mL Inj Sol-1mL Pk	00585688 Numorphan	DUP	2.8980
645	Oxymorphone HCl 5mg Sup	00585661 Numorphan	DUP	3.2680
646	Pentazocine 30mg/mL Inj Sol-1mL Pk	01904973 Talwin	WIN	.7568
647	Pentazocine 50mg Tab	01904965 Talwin	WIN	.3114
648	Phenylbutazone 100mg Ent Tab	00258377 Intrabutazone	ORG	.2360
649	Phenylbutazone 100mg Tab	00010502 Butazolidin 00021660 Novo-Butazone 00093041 Phenylbutazone 00312789 Apo-Phenylbutazone	GEI NOP DTC APX	.0132
650	Piroxicam 10mg Cap	00525596 Feldene 00642886 Apo-Piroxicam 00695718 Novo-Pirocam +00865761 Nu-Pirox	PFI APX NOP NXP	.4548
651	Piroxicam 20mg Cap	00525618 Feldene 00642894 Apo-Piroxicam 00695696 Novo-Pirocam +00865788 Nu-Pirox	PFI APX NOP NXP	.7850
652	Piroxicam 10mg Sup	00632708 Feldene	PFI	.9940
653	Piroxicam 20mg Sup	00632716 Feldene	PFI	1.6567
654	Propoxyphene Cap	00151351 Novo-Propoxyn 00261432 Darvon-N	NOP LIL	.0347
655	Propoxyphene 65mg Tab	00010081 642	FRS	.1038

Item 28:00 Central Nervous System Drugs

28:08:00 Analgesics

656	Sulindac 150mg Tab	00456888 Clinoril 00745588 Novo-Sundac 00778354 Apo-Sulin	FRS NOP APX	.4235
657	Sulindac 200mg Tab	00432369 Clinoril 00745596 Novo-Sundac 00778362 Apo-Sulin	FRS NOP APX	.5364
658	Tiaprofenic Acid 200mg Tab	00589926 Surgam	ROU	.5235
659	Tiaprofenic Acid 300mg Tab	00589934 Surgam	ROU	.6250
660	Tolmetin Sodium 400mg Cap	00484938 Tolectin DS	MCN	.5370
661	Tolmetin Sodium 200mg Tab	00364126 Tolectin	MCN	.3775
662	Tolmetin Sodium 600mg Tab	00632740 Tolectin	MCN	.7600

28:10:00 Narcotic Antagonists

663	Naloxone HCl 0.4mg/mL Inj Sol-1mL Pk	00589020 Narcan	DUP	8.9990
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28:12:00 Anticonvulsants

664	Carbamazepine 100mg Chew Tab	00369810 Tegretol Chew Tabs	GEI	.1174
665	Carbamazepine 200mg Chew Tab	00665088 Tegretol Chew Tabs	GEI	.2316
666	Carbamazepine 200mg Tab	00010405 Tegretol 00402699 Apo-Carbamazepine 00504742 Mazepine 00782718 Novo-Carbamaz	GEI APX ICN NOP	.0919
667	Clonazepam 0.5mg Tab	00382825 Rivotril	HLR	.1787
668	Clonazepam 2mg Tab	00382841 Rivotril	HLR	.3075
669	Divalproex Sodium 125mg Ent Tab	00596418 Epival	ABB	.2021
670	Divalproex Sodium 250mg Ent Tab	00596426 Epival	ABB	.3632
671	Divalproex Sodium 500mg Ent Tab	00596434 Epival	ABB	.7265

Item 28:00 Central Nervous System Drugs

28:12:00 Anticonvulsants

672	Ethosuximide 250mg Cap	00022799 Zarontin	PDA	.2646
673	Ethosuximide 50mg/mL O/L	00023485 Zarontin	PDA	.0529
674	Mephenytoin 100mg Tab	00027421 Mesantoin	SAN	.1275
675	Mephobarbital 100mg Tab	00033707 Mebaral	WIN	.1919
676	Methsuximide 300mg Cap	00022802 Celontin	PDA	.2926
677	Phenobarbital 4mg/mL O/L	00588180 Phenobarbital 00604585 Phenobarbital	DTC SAN	.0142
678	Phenobarbital 15mg Tab	00023795 Phenobarbital 00093505 Phenobarbital 00271276 Phenobarbital-ICN #00604542 Phenobarbital	PDA DTC ICN SAN	.0054
679	Phenobarbital 30mg Tab	00023809 Phenobarbital 00093521 Phenobarbital 00293903 Phenobarbital-ICN #00604550 Phenobarbital	PDA DTC ICN SAN	.0059
680	Phenobarbital 60mg Tab	00023817 Phenobarbital 00093556 Phenobarbital 00320714 Phenobarbital-ICN	PDA DTC ICN	.0136
681	Phenobarbital 100mg Tab	00093564 Phenobarbital 00344036 Phenobarbital-ICN #00604577 Phenobarbital	DTC ICN SAN	.0185
682	Phenytoin (Diphenylhydantoin) 6mg/mL O/L	00023442 Dilantin	PDA	.0353
683	Phenytoin (Diphenylhydantoin) 25mg/mL O/L	00023450 Dilantin	PDA	.0418
684	Phenytoin (Diphenylhydantoin) 50mg Tab	00023698 Dilantin	PDA	.0643
685	Phenytoin (Diphenylhydantoin) Sodium 30mg Cap	00022772 Dilantin	PDA	.0469
686	Phenytoin (Diphenylhydantoin) Sodium 100mg Cap	00022780 Dilantin	PDA	.0538

Item 28:00 Central Nervous System Drugs

28:12:00 Anticonvulsants

687	Phenytoin (Diphenylhydantoin) Sodium 100mg/2mL Inj Sol-2mL Pk	00245453 Dilantin	PDA	2.8450
688	Phenytoin (Diphenylhydantoin) Sodium 250mg/5mL Inj Sol-5mL Pk	00271705 Dilantin	PDA	5.9360
689	Primidone 125mg Tab	00002623 Mysoline 00399310 Apo-Primidone	AYE APX	.0380
690	Primidone 250mg Tab	00002631 Mysoline 00396761 Apo-Primidone	AYE APX	.0609
691	Valproate Sodium 50mg/mL O/L	00443832 Depakene	ABB	.0814
692	Valproic Acid 250mg Cap	00443840 Depakene	ABB	.3667
693	Valproic Acid 500mg Ent Cap	00507989 Depakene	ABB	.7335

28:16:04 Psychotherapeutic Agents Antidepressants

694	Amitriptyline 2mg/mL O/L	00016306 Elavil	MSD	.0379
695	Amitriptyline 10mg Tab	00016322 Elavil 00037400 Novo-Triptyn 00335053 Apo-Amitriptyline 00377872 Amitriptyline	MSD NOP APX DTC	.0062
696	Amitriptyline 25mg Tab	00016330 Elavil 00037419 Novo-Triptyn 00335061 Apo-Amitriptyline 00377880 Amitriptyline	MSD NOP APX DTC	.0083
697	Amitriptyline 50mg Tab	00016349 Elavil 00037427 Novo-Triptyn 00335088 Apo-Amitriptyline 00377899 Amitriptyline	MSD NOP APX DTC	.0178
698	Amoxapine 25mg Tab	00527084 Asendin	LED	.1895
699	Amoxapine 50mg Tab	00527092 Asendin	LED	.2927
700	Amoxapine 100mg Tab	00527106 Asendin	LED	.5997
701	Amoxapine 150mg Tab	00527114 Asendin	LED	.8487

Item 28:00 Central Nervous System Drugs

28:16:04 Psychotherapeutic Agents Antidepressants

702	Clomipramine HCl 10mg Tab	00330566 Anafranil	GEI	.2476
703	Clomipramine HCl 25mg Tab	00324019 Anafranil	GEI	.3374
704	Clomipramine HCl 50mg Tab	00402591 Anafranil	GEI	.6211
705	Desipramine 25mg Tab	00010448 Pertofrane 00353868 Norpramin	GEI MER	.3223
706	Desipramine 50mg Tab	00353876 Norpramin	MER	.6044
707	Desipramine 75mg Tab	00425265 Norpramin	MER	.8922
708	Doxepin HCl 10mg Cap	00024325 Sinequan 00842745 Triadapin	PFI FIS	.1444
709	Doxepin HCl 25mg Cap	00024333 Sinequan 00842753 Triadapin	PFI FIS	.1776
710	Doxepin HCl 50mg Cap	00024341 Sinequan 00842761 Triadapin	PFI FIS	.2949
711	Doxepin HCl 75mg Cap	00400750 Sinequan 00842788 Triadapin	PFI FIS	.5580
712	Doxepin HCl 100mg Cap	00326925 Sinequan 00842796 Triadapin	PFI FIS	.7330
713	Doxepin HCl 150mg Cap	00584274 Sinequan 00842818 Triadapin	PFI FIS	.9668
714	Fluoxetine HCl 20mg Cap	00636622 Prozac	LIL	1.4875
715	Imipramine 10mg Tab	00010464 Tofranil 00021504 Novo-Pramine 00360201 Apo-Imipramine 00377902 Imipramine	GEI NOP APX DTC	.0062
716	Imipramine 25mg Tab	00010472 Tofranil 00021512 Novo-Pramine 00312797 Apo-Imipramine 00377910 Imipramine	GEI NOP APX DTC	.0113

Item 28:00 Central Nervous System Drugs

28:16:04 Psychotherapeutic Agents Antidepressants

717	Imipramine 50mg Tab	00010480 Tofranil 00021520 Novo-Pramine 00326852 Apo-Imipramine 00377929 Imipramine	GEI NOP APX DTC	.0196
718	** Isocarboxazid 10mg Tab	00013307 Marplan	HLR	.2035
719	Maprotiline HCl 10mg Tab	00641855 Ludiomil	CIB	.1940
720	Maprotiline HCl 25mg Tab	00360481 Ludiomil	CIB	.2645
721	Maprotiline HCl 50mg Tab	00360503 Ludiomil	CIB	.5003
722	Maprotiline HCl 75mg Tab	00360511 Ludiomil	CIB	.6833
723	Nortriptyline 10mg Cap	00015229 Aventyl	LIL	.1918
724	Nortriptyline 25mg Cap	00015237 Aventyl	LIL	.3876
725	** Phenelzine Sulfate 15mg Tab	00476552 Nardil	PDA	.2878
726	Protriptyline 10mg Tab	00322741 Triptil	MSD	.3405
727	** Tranylcypromine Sulfate 10mg Tab	00027111 Parnate	SKF	.3212
728	Trazodone Hydrochloride 50mg Tab	00579351 Desyrel	BRI	.3265
729	Trazodone Hydrochloride 100mg Tab	00579378 Desyrel	BRI	.5830
730	Trazodone Hydrochloride 150mg Tab	00702277 Desyrel Dividose	BRI	.9710
731	Trimipramine 75mg Cap	00442437 Surmontil 00761656 Rhotrimine	RPP RHP	.7386
732	Trimipramine 12.5mg Tab	00025828 Surmontil 00740799 Apo-Trimip 00761605 Rhotrimine	RPP APX RHP	.0992
733	Trimipramine 25mg Tab	00025836 Surmontil 00740802 Apo-Trimip 00761613 Rhotrimine	RPP APX RHP	.1258

Item 28:00 Central Nervous System Drugs

28:16:04 Psychotherapeutic Agents Antidepressants

734	Trimipramine 50mg Tab	00025844 Surmontil 00740810 Apo-Trimip 00761621 Rhotrimine	RPP APX RHP	.2423
735	Trimipramine 100mg Tab	00025852 Surmontil 00740829 Apo-Trimip 00761648 Rhotrimine	RPP APX RHP	.4406

28:16:08 Psychotherapeutic Agents Tranquilizers

736	Alprazolam 0.25mg Tab	00548359 Xanax 00677485 Alprazolam +00865397 Apo-Alpraz	UPJ KNR APX	.1162
737	Alprazolam 0.5mg Tab	00548367 Xanax 00677477 Alprazolam +00865400 Apo-Alpraz	UPJ KNR APX	.1390
738	Bromazepam 1.5mg Tab	00682314 Lectopam	HLR	.1000
739	Bromazepam 3mg Tab	00518123 Lectopam	HLR	.1348
740	Bromazepam 6mg Tab	00518131 Lectopam	HLR	.1975
741	Chlordiazepoxide 5mg Cap	00012629 Librium 00020915 Novo-Poxide 00398403 Chlordiazepoxide 00522724 Apo-Chlordiazepoxide	HLR NOP DTC APX	.0130
742	Chlordiazepoxide 10mg Cap	00012637 Librium 00013471 Solium 00020923 Novo-Poxide 00398411 Chlordiazepoxide 00522988 Apo-Chlordiazepoxide	HLR HOR NOP DTC APX	.0155
743	Chlordiazepoxide 25mg Cap	00012645 Librium 00013498 Solium 00020931 Novo-Poxide 00398438 Chlordiazepoxide 00522996 Apo-Chlordiazepoxide	HLR HOR NOP DTC APX	.0203
744	Chlormezanone 200mg Tab	00033626 Trancopal	WIN	.2896
745	Chlorpromazine 50mg/2mL Inj Sol-2mL Pk	00163953 Largactil	RPP	1.2810
746	Chlorpromazine 5mg/mL O/L	00025151 Largactil	RPP	.0234

Item 28:00 Central Nervous System Drugs

28:16:08 Psychotherapeutic Agents Tranquilizers

747	Chlorpromazine 20mg/mL O/L	00025178 Largactil 00580988 Chlorpromanyl 20	RPP TCH	.0339
748	Chlorpromazine 40mg/mL O/L	00025186 Largactil	RPP	.2649
749	Chlorpromazine 100mg Sup	00025283 Largactil	RPP	1.7695
750	Chlorpromazine 10mg Tab	00025453 Largactil 00232157 Novo-Chlorpromazine	RPP NOP	.0084
751	Chlorpromazine 25mg Tab	00025461 Largactil 00232823 Novo-Chlorpromazine	RPP NOP	.0097
752	Chlorpromazine 50mg Tab	00025488 Largactil 00232807 Novo-Chlorpromazine	RPP NOP	.0148
753	Chlorpromazine 100mg Tab	00025496 Largactil 00232831 Novo-Chlorpromazine	RPP NOP	.0233
754	Chlorpromazine 200mg Tab	00025518 Largactil	RPP	.1042
755	Chlorprothixene 15mg Tab	00013234 Tarasan	HLR	.1315
756	Chlorprothixene 50mg Tab	00013242 Tarasan	HLR	.2650
757	Clorazepate Dipotassium 3.75mg Cap	00264938 Tranxene 00628190 Novo-Clopate +00860689 Apo-Clorazepate	ABB NOP APX	.0730
758	Clorazepate Dipotassium 7.5mg Cap	00264946 Tranxene 00628204 Novo-Clopate +00860700 Apo-Clorazepate	ABB NOP APX	.1612
759	Clorazepate Dipotassium 15mg Cap	00264911 Tranxene 00628212 Novo-Clopate +00860697 Apo-Clorazepate	ABB NOP APX	.2755
760	Diazepam 10mg/2mL Inj Sol-2mL Pk	00012874 Valium	HLR	.7080
761	Diazepam 2mg Tab	00013277 Valium 00013757 Vivol 00272434 Novo-Dipam #00272647 E-Pam 00405329 Apo-Diazepam 00466905 Diazepam	HLR HOR NOP ICN APX DTC	.0058

Item 28:00 Central Nervous System Drugs

28:16:08 Psychotherapeutic Agents Tranquilizers

762	Diazepam 5mg Tab	00013285 Valium 00013765 Vivol 00272442 Novo-Dipam 00362158 Apo-Diazepam 00396230 Diazepam	HLR HOR NOP APX DTC	.0064
763	Diazepam 10mg Tab	00013293 Valium 00013773 Vivol 00272450 Novo-Dipam #00272639 E-Pam 00405337 Apo-Diazepam 00466891 Diazepam	HLR HOR NOP ICN APX DTC	.0073
764	Flupenthixol Decanoate 200mg/10mL Inj Sol-10mL Pk	00524522 Fluanxol Depot	MER	62.8700
765	Flupenthixol Decanoate 200mg/2mL Inj Sol-2mL Pk	00524530 Fluanxol Depot	MER	62.8700
766	Flupenthixol Dihydrochloride 0.5mg Tab	00580619 Fluanxol	MER	.2171
767	Flupenthixol Dihydrochloride 3mg Tab	00585157 Fluanxol	MER	.4690
768	Fluphenazine Decanoate 125mg/5mL Inj Susp-5mL Pk	00349917 Modecate	SQU	41.9000
769	Fluphenazine Decanoate 100mg/mL Inj Sol 1mL Pk	+00755575 Modecate Concentrate	SQU	36.8700
770	Fluphenazine Enanthate 125mg/5mL Inj Sol-5mL Pk	00029173 Moditen Enanthate	SQU	41.9000
771	Fluphenazine HCl 0.5mg/mL O/L	00245240 Moditen HCl	SQU	.0305
772	Fluphenazine HCl 1mg Tab	00029378 Moditen HCl 00405345 Apo-Fluphenazine	SQU APX	.0885
773	Fluphenazine HCl 2mg Tab	00029386 Moditen HCl 00410632 Apo-Fluphenazine	SQU APX	.1061
774	Fluphenazine HCl 5mg Tab	00029408 Moditen HCl 00405361 Apo-Fluphenazine #00504459 Permitil	SQU APX SCH	.1593
775	Fluspirilene 10mg/mL Inj Susp-1mL Pk	00542903 IMAP Forte	MCN	16.5700
776	Fluspirilene 12mg/6mL Inj Susp-6mL Pk	00368393 IMAP	MCN	20.8800
777	Haloperidol 5mg/mL Inj Sol-1mL Pk	00017574 Haldol	MCN	3.0750

Item 28:00 Central Nervous System Drugs

28:16:08 Psychotherapeutic Agents Tranquilizers

778	Haloperidol 2mg/mL O/L	00017582 Haldol 00552429 Peridol 00587702 Apo-Haloperidol 00749400 Haloperidol	MCN TCH APX KNR	.1300
779	Haloperidol 0.5mg Tab	00017655 Haldol 00363685 Novo-Peridol 00396796 Apo-Haloperidol 00552135 Peridol 00749419 Haloperidol	MCN NOP APX TCH KNR	.0451
780	Haloperidol 1mg Tab	00017663 Haldol 00363677 Novo-Peridol 00396818 Apo-Haloperidol 00552143 Peridol 00749427 Haloperidol	MCN NOP APX TCH KNR	.0731
781	Haloperidol 2mg Tab	00017671 Haldol 00363669 Novo-Peridol 00396826 Apo-Haloperidol 00749435 Haloperidol	MCN NOP APX KNR	.1318
782	Haloperidol 5mg Tab	00017698 Haldol 00363650 Novo-Peridol 00396834 Apo-Haloperidol 00749443 Haloperidol	MCN NOP APX KNR	.1894
783	Haloperidol 10mg Tab	00381772 Haldol 00463698 Apo-Haloperidol 00713449 Novo-Peridol 00749451 Haloperidol	MCN APX NOP KNR	.3080
784	Haloperidol 20mg Tab	00499579 Haldol 00768820 Novo-Peridol	MCN NOP	.6636
785	Haloperidol Decanoate 50mg/mL Oily Inj Sol-5mL Pk	00599085 Haldol-LA	MCN	52.0500
786	Haloperidol Decanoate 100mg/mL Oily Inj Sol-1mL Pk	00599093 Haldol-LA	MCN	20.5703
787	Haloperidol Decanoate 100mg/mL Oily Inj Sol-5mL Pk	00980803 Haldol-LA	MCN	102.8500
788	Hydroxyzine HCl 10mg Cap	00024376 Atarax 00646059 Apo-Hydroxyzine 00723487 Multipax 00738824 Novo-Hydroxyzin	PFI APX ROR NOP	.0349

Item 28:00 Central Nervous System Drugs

28:16:08 Psychotherapeutic Agents Tranquilizers

789	Hydroxyzine HCl 25mg Cap	00024384 Atarax 00646024 Apo-Hydroxyzine 00723479 Multipax 00738832 Novo-Hydroxyzin	PFI APX ROR NOP	.0568
790	Hydroxyzine HCl 50mg Cap	00024392 Atarax 00646016 Apo-Hydroxyzine 00723592 Multipax 00738840 Novo-Hydroxyzin	PFI APX ROR NOP	.0791
791	Hydroxyzine HCl 500mg/10mL Inj Sol-10mL Pk	00024589 Atarax	PFI	19.7000
792	Hydroxyzine HCl 2mg/mL O/L	00024694 Atarax	PFI	.0457
793	Ketazolam 15mg Cap	00514519 Loftran	BEE	.4592
794	Ketazolam 30mg Cap	00514527 Loftran	BEE	.6802
795	Lorazepam 0.5mg Tab	00399124 Ativan 00655740 Apo-Lorazepam 00711101 Novo-Lorazem +00865672 Nu-Loraz	WYE APX NOP NXP	.0492
796	Lorazepam 1mg Tab	00348325 Ativan 00637742 Novo-Lorazem 00655759 Apo-Lorazepam +00865680 Nu-Loraz	WYE NOP APX NXP	.0557
797	Lorazepam 2mg Tab	00348333 Ativan 00637750 Novo-Lorazem 00655767 Apo-Lorazepam +00865699 Nu-Loraz	WYE NOP APX NXP	.0906
798	Meprobamate 400mg Tab	00021547 Novo-Mepro 00034142 Equanil 00092738 Meprobamate 00337943 Apo-Meprobamate	NOP WYE DTC APX	.0198
799	Mesoridazine 10mg Tab	00027448 Serentil	SAN	.2905
800	Mesoridazine 25mg Tab	00027456 Serentil	SAN	.3479
801	Mesoridazine 50mg Tab	00027464 Serentil	SAN	.4816

Item 28:00 Central Nervous System Drugs

28:16:08 Psychotherapeutic Agents Tranquilizers

802	Oxazepam 10mg Tab	00295701 Serax 00402680 Apo-Oxazepam 00483893 Oxazepam 00500852 Novoxapam	WYE APX DTC NOP	.0100
803	Oxazepam 15mg Tab	00295698 Serax 00402745 Apo-Oxazepam 00483915 Oxazepam 00496529 Novoxapam	WYE APX DTC NOP	.0105
804	Oxazepam 30mg Tab	00231363 Serax 00402737 Apo-Oxazepam 00483907 Oxazepam 00496537 Novoxapam	WYE APX DTC NOP	.0142
805	Pericyazine 5mg Cap	00024880 Neuleptil	RPP	.1606
806	Pericyazine 10mg Cap	00024899 Neuleptil	RPP	.2298
807	Pericyazine 10mg/mL O/L	00379301 Neuleptil	RPP	.2720
808	Perphenazine 5mg/mL Inj Sol-1mL Pk	00028002 Trilafon	SCH	2.3220
809	Perphenazine 0.4mg/mL O/L	00028150 Trilafon	SCH	.0688
810	Perphenazine 3.2mg/mL O/L	00028169 Trilafon Conc.	SCH	.2055
811	Perphenazine 2mg Tab	00028290 Trilafon 00335134 Apo-Perphenazine 00456039 Perphenazine	SCH APX DTC	.0159
812	Perphenazine 4mg Tab	00028304 Trilafon 00335126 Apo-Perphenazine 00456047 Perphenazine	SCH APX DTC	.0170
813	Perphenazine 8mg Tab	00028312 Trilafon 00335118 Apo-Perphenazine 00456055 Perphenazine	SCH APX DTC	.0201
814	Perphenazine 16mg Tab	00028320 Trilafon 00335096 Apo-Perphenazine 00481920 Perphenazine	SCH APX DTC	.0289
815	Pimozide 2mg Tab	00313815 Orap	MCN	.3015

Item 28:00 Central Nervous System Drugs

28:16:08 Psychotherapeutic Agents Tranquilizers

816	Pimozide 4mg Tab	00313823 Orap	MCN	.5470
817	Pimozide 10mg Tab	00573817 Orap	MCN	1.1970
818	Pipotiazine Palmitate 25mg/mL Inj Sol-1mL Pk	00427918 Piportil L4	RPP	11.6433
819	Pipotiazine Palmitate 50mg/mL Inj Sol-1mL Pk	00990507 Piportil L4	RPP	19.7333
820	Pipotiazine Palmitate 100mg/2mL Inj Sol-2mL Pk	00427926 Piportil L4	RPP	37.5100
821	Prochlorperazine 10mg/2mL Inj Sol-2mL Pk	00578185 Stemetil	RPP	1.6710
822	Prochlorperazine 1mg/mL O/L	00025216 Stemetil	RPP	.0488
823	Prochlorperazine 10mg Sup	00025364 Stemetil	RPP	1.0980
824	Prochlorperazine 5mg Tab	00025682 Stemetil	RPP	.1686
825	Prochlorperazine 10mg Tab	00025690 Stemetil	RPP	.2059
826	Thioridazine 2mg/mL O/L	00027375 Mellaril 00238775 Thioridazine	SAN SAP	.0180
827	Thioridazine 30mg/mL O/L	00027359 Mellaril	SAN	.1469
828	Thioridazine 10mg Tab	00027529 Mellaril 00037508 Novo-Ridazine 00360228 Apo-Thioridazine 00456063 Thioridazine 00575119 PMS-Thioridazine	SAN NOP APX DTC PMS	.0151
829	Thioridazine 25mg Tab	00027537 Mellaril 00037494 Novo-Ridazine 00360198 Apo-Thioridazine 00456071 Thioridazine 00575127 PMS-Thioridazine	SAN NOP APX DTC PMS	.0282
830	Thioridazine 50mg Tab	00027545 Mellaril 00037486 Novo-Ridazine 00360236 Apo-Thioridazine 00456098 Thioridazine 00575135 PMS-Thioridazine	SAN NOP APX DTC PMS	.0511

Item 28:00 Central Nervous System Drugs

28:16:08 Psychotherapeutic Agents Tranquilizers

831	Thioridazine 100mg Tab	00027553 Mellaril 00037478 Novo-Ridazine 00360244 Apo-Thioridazine 00456101 Thioridazine 00575143 PMS-Thioridazine	SAN NOP APX DTC PMS	.1025
832	Thiothixene 2mg Cap	00024430 Navane	PFI	.1782
833	Thiothixene 5mg Cap	00024449 Navane	PFI	.3064
834	Thiothixene 10mg Cap	00024457 Navane	PFI	.3945
835	Trifluoperazine 1mg/mL Inj Sol-1mL Pk	00026999 Stelazine	SKF	1.8234
836	Trifluoperazine 10mg/mL O/L	00027022 Stelazine 00298212 Terfluzine	SKF ICN	.2480
837	Trifluoperazine 1mg Tab	00021857 Novo-Flurazine 00027146 Stelazine 00249068 Trifluoperazine 00345539 Apo-Trifluoperazine	NOP SKF DTC APX	.0068
838	Trifluoperazine 2mg Tab	00021865 Novo-Flurazine 00027154 Stelazine 00249076 Trifluoperazine 00312754 Apo-Trifluoperazine	NOP SKF DTC APX	.0076
839	Trifluoperazine 5mg Tab	00013919 Solazine 00021873 Novo-Flurazine 00027162 Stelazine 00249084 Trifluoperazine #00271527 Terfluzine 00312746 Apo-Trifluoperazine	HOR NOP SKF DTC ICN APX	.0108
840	Trifluoperazine 10mg Tab	00013927 Solazine 00021881 Novo-Flurazine 00027170 Stelazine 00249092 Trifluoperazine #00280399 Terfluzine 00326836 Apo-Trifluoperazine	HOR NOP SKF DTC ICN APX	.0180

28:16:12 Psychotherapeutic Agents Other Psychotropics

841	Lithium Carbonate 150mg Cap	00461733 Carbolith	ICN	.0826
842	Lithium Carbonate 300mg Cap	00236683 Carbolith 00328790 Lithizine 00406775 Lithane	ICN TCH PFI	.0830 .1475 .0905

Item 28:00 Central Nervous System Drugs

28:16:12 Psychotherapeutic Agents Other Psychotropics

843	Lithium Carbonate 300mg LA Tab	00590665 Duralith	MCN	.1800
844	Lithium Carbonate 300mg Tab	00024406 Lithane	PFI	.0905
845	Loxapine HCl 25mg/mL O/L	00361364 Loxapac	LED	.6946
846	Loxapine Succinate 5mg Tab	00346780 Loxapac	LED	.1991
847	Loxapine Succinate 10mg Tab	00346799 Loxapac	LED	.3316
848	Loxapine Succinate 25mg Tab	00346802 Loxapac	LED	.5140
849	Loxapine Succinate 50mg Tab	00346810 Loxapac	LED	.6853

28:20:00 C.N.S. Stimulants

850	Dexamphetamine Sulfate 5mg Tab	00027065 Dexedrine	SKF	.2453
851	Methylphenidate HCl 20mg LA Tab	00632775 Ritalin SR	CIB	.4611
852	Methylphenidate HCl 10mg Tab	00005606 Ritalin	CIB	.2422
853	Pemoline 37.5mg Tab	00397512 Cylert	ABB	.6326
854	Pemoline 75mg Tab	00397520 Cylert	ABB	1.2039

28:24:00 Sedatives and Hypnotics

855	Amobarbital 30mg Tab	00015628 Amytal	LIL	.0799
856	Amobarbital 100mg Tab	00015636 Amytal	LIL	.1356
857	Amobarbital Sodium 60mg Cap	00015148 Amytal Sodium	LIL	.0941
858	Amobarbital Sodium 200mg Cap	00015156 Amytal Sodium	LIL	.2073
859	Butobarbital Sodium 15mg Tab	00581305 Butisol Sodium	HOR	.0758
860	Butobarbital Sodium 30mg Tab	00581291 Butisol Sodium	HOR	.1010
861	Butobarbital Sodium 100mg Tab	00581313 Butisol Sodium	HOR	.1817

Item 28:00 Central Nervous System Drugs

28:24:00 Sedatives and Hypnotics

862	Chloral Hydrate 500mg Cap	00020893 Novo-Chlorhydrate 00029041 Noctec 00092886 Chloral Hydrate	NOP SQU DTC	.0333
863	Chloral Hydrate 100mg/mL O/L	00029327 Noctec	SQU	.0208
864	Flurazepam 15mg Cap	00012696 Dalmane 00496545 Novo-Flupam 00521698 Apo-Flurazepam	HLR NOP APX	.0387
865	Flurazepam 30mg Cap	00012718 Dalmane 00496553 Novo-Flupam 00521701 Apo-Flurazepam	HLR NOP APX	.0441
866	Flurazepam 15mg Tab	00483826 Somnol	HOR	.0630
867	Flurazepam 30mg Tab	00483818 Somnol	HOR	.0708
868	Methotrimeprazine 25mg/mL Inj Sol-1mL Pk	00025003 Nozinan	RPP	2.2750
869	Methotrimeprazine 5mg/mL O/L	00025194 Nozinan	RPP	.0539
870	Methotrimeprazine 40mg/mL O/L	00025208 Nozinan	RPP	.3936
871	Methotrimeprazine 2mg Tab	00025577 Nozinan	RPP	.0692
872	Methotrimeprazine 5mg Tab	00025585 Nozinan	RPP	.1001
873	Methotrimeprazine 25mg Tab	00025593 Nozinan	RPP	.2572
874	Methotrimeprazine 50mg Tab	00025607 Nozinan	RPP	.3896
875	Nitrazepam 5mg Tab	00511528 Mogadon	HLR	.1326
876	Nitrazepam 10mg Tab	00511536 Mogadon	HLR	.1985
877	Paraldehyde Inj Sol-5mL Pk	00012149 Paraldehyde	GLA	1.6184
878	Pentobarbital Sodium 100mg Cap	00000086 Nembutal 00020990 Novo-Pentobarb	ABB NOP	.0504

Item 28:00 Central Nervous System Drugs

28:24:00 Sedatives and Hypnotics

879	Phenobarbital 4mg/mL O/L	00588180 Phenobarbital 00604585 Phenobarbital	DTC SAN	.0142
880	Phenobarbital 15mg Tab	00023795 Phenobarbital 00093505 Phenobarbital 00271276 Phenobarbital-ICN #00604542 Phenobarbital	PDA DTC ICN SAN	.0054
881	Phenobarbital 30mg Tab	00023809 Phenobarbital 00093521 Phenobarbital 00293903 Phenobarbital-ICN #00604550 Phenobarbital	PDA DTC ICN SAN	.0059
882	Phenobarbital 60mg Tab	00023817 Phenobarbital 00093556 Phenobarbital 00320714 Phenobarbital-ICN	PDA DTC ICN	.0136
883	Phenobarbital 100mg Tab	00093564 Phenobarbital 00344036 Phenobarbital-ICN #00604577 Phenobarbital	DTC ICN SAN	.0185
884	Promethazine HCl 50mg/2mL Inj Sol-2mL Pk	00025046 Phenergan	RPP	1.1730
885	Promethazine HCl 2mg/mL O/L	00025429 Phenergan 00583979 PMS-Promethazine	RPP PMS	.0180
886	Promethazine HCl 10mg Tab	00025712 Phenergan	RPP	.0838
887	Promethazine HCl 25mg Tab	00213896 Phenergan	RPP	.1053
888	Secobarbital Sodium 50mg Cap	00015261 Seconal	LIL	.0883
889	Secobarbital Sodium 100mg Cap	00015288 Seconal 00021032 Novo-Secobarb	LIL NOP	.0557
890	Temazepam 15mg Cap	00604453 Restoril	SAN	.1740
891	Temazepam 30mg Cap	00604461 Restoril	SAN	.2080
892	Triazolam 0.125mg Tab	00512559 Halcion 00614351 Triazolam 00808563 Apo-Triazo +00886084 Nu-Triazo	UPJ KNR APX NXP	.0763

Item 28:00 Central Nervous System Drugs

28:24:00 Sedatives and Hypnotics

893	Triazolam 0.25mg Tab	00443158 Halcion	UPJ	.0945
		00614378 Triazolam	KNR	
		00808571 Apo-Triazo	APX	
		00872431 Novo-Triolam	NOP	
		+00886092 Nu-Triazo	NXP	

Item 36:00 Diagnostic Agents

36:04:00 Adrenal Insufficiency

894	Cosyntropin Inj Pd-0.25mg Pk	00022381 Cortrosyn	ORG	9.1700
895	Cosyntropin Zinc Hydroxide 1mg/mL Inj Susp-1mL Pk	00253952 Synacthen Depot	CIB	20.5800

36:26:00 Diabetes Mellitus

896	Glucose Oxidase Reagent Strip- 25 Pk	00980749 Glucostix	AME	16.7000
		00990906 Chemstrip bG	BOM	16.4000
		00990922 Dextrostix	AME	15.5800
897	Glucose Oxidase Reagent Strip- 50 Pk	00980676 Glucoscan	LIF	33.7500
		00981087 One Touch	LIF	34.8500
		#00984230 Glucostix	AME	30.4800
		+00984760 Glucostix (Foil Wrapped)	AME	31.5500
		+00984930 ExacTech	MED	33.6500
		00990027 Chemstrip bG	BOM	34.2000
898	Glucose Oxidase Reagent Strip-100 Pk	00980706 Reflocheck	BOM	54.7000
		00980714 Glucoscan	LIF	60.7000
		00980757 Glucostix	AME	59.1600
		00984140 Dextrostix	AME	55.8500

Item 36:00 Diagnostic Agents

36:56:00 Myasthenia Gravis

899	Edrophonium Chloride 100mg/10mL Inj Sol-10mL Pk	00855804 Tensilon	ICN	11.9973
900	Neostigmine Methylsulfate 0.5mg/mL Inj Sol-1mL Pk	00869910 Prostigmin	ICN	.8487

36:88:00 Urine Contents

901	* Cupric Sulfate Reagent Tab-100 Pk	00980420 Clinitest	AME	7.9500
902	* Glucose Oxidase Reagent (Qualitative) Strip-50 Pk	00980633 Clinistix	AME	4.5000
903	Glucose Oxidase Reagent (Semi-Quantitative) Strip-50 Pk	00980641 Diastix 00990019 Chemstrip uG 5000	AME BOM	4.5000 5.9000
904	Glucose Oxidase/Sodium Nitroprusside Reagent Strip-100 Pk	00990647 Keto-Diastix	AME	10.8100
905	Semiquantitative Glucose Ketones Reagent Analysis Paper Strip-50 Pk	00980692 Chemstrip uG 5000 K	BOM	6.1000
906	Sodium Nitroprusside Reagent Strip-50 Pk	00980595 Ketostix	AME	5.3000
907	Sodium Nitroprusside Reagent Tab-100 Pk	00980560 Acetest	AME	13.7800
908	Urine-Ketone Analysis Paper Strip-100 Pk	00990698 Chemstrip K	BOM	10.6000
909	* Urine-Sugar Analysis Paper Strip-100 Pk	00980609 Tes-Tape	LIL	7.8680

Item 40:00 Electrolytic, Caloric and Water Balance

40:08:00 Alkalinizing Agents

910	Sodium Bicarbonate 300mg Tab otc 100 Pk	00093068 Sodium Bicarbonate 00179884 Soda Mint	DTC SDR	3.0000
911	Sodium Bicarbonate 600mg Tab otc 100 Pk	00221619 Sodium Bicarbonate	DTC	4.5000

40:12:00 Replacement Agents

912	Calcium Carbonate Eq to 500mg Elemental Calcium Chew Tab	00648345 Calsan	SAN	.1155
913	Calcium Carbonate Eq to 500mg Elemental Calcium SG Cap	00648353 Calsan	SAN	.1155
914	Calcium Carbonate Eq to 250mg Elemental Calcium Tab	00541915 Os-Cal 250 00645958 Calcium-250 00682047 Apo-Cal 250	AYE NOP APX	.0177
915	Calcium Carbonate Eq to 500mg Elemental Calcium Tab	00541907 Os-cal 500 #00640360 Calcium 00645923 Calcium-500 00682039 Apo-Cal 500	AYE SDR NOP APX	.0227
916	Calcium Carbonate Eq to 600mg Elemental Calcium Tab	00626341 Caltrate 600	LED	.1162
917	Calcium Carbonate & Calcium Gluconolactate Eq to 500mg Elemental Calcium Eff Tab	00027588 Calcium-Sandoz Forte	SAN	.3537
918	Calcium Carbonate & Calcium Gluconolactate Eq to 1000mg Elemental Calcium Eff Tab	00259497 Gramcal	SAN	.6030
919	Calcium Gluconate Eq to 9mg Elemental Calcium/mL Inj Sol-10mL Pk	00027219 Calcium-Sandoz	SAN	1.9800
920	Calcium Gluconate Eq to 60mg Elemental Calcium Tab otc 100 Pk	00094773 Calcium Gluconate 00179698 Calcium Gluconate 00241717 Calcium Gluconate 00441473 Calcium Gluconate	DTC SDR WAM NOP	3.5000
921	Calcium Gluconate & Calcium Glucoheptonate Eq to 19mg Elemental Calcium/mL O/L	00466425 Calcium-Rougier	ROG	.0165
922	Calcium Gluconogalactogluconate Eq to 22mg Elemental Calcium/mL O/L	00027383 Calcium-Sandoz	SAN	.0241

Item 40:00 Electrolytic, Caloric and Water Balance

40:12:00 Replacement Agents

923	Calcium Lactate Eq to 84mg Elemental Calcium Tab otc 100 Pk			3.6000
		00021253	Calcium Lactate	NOP
		00023590	Calcium Lactate	PDA
		00179671	Calcium Lactate	SDR
924	Colon Electrolyte Lavage Pd 4L Pk	00677442	Colyte	RCA 14.0500
925	Electrolyte & Dextrose O/L			.0064
		00630365	Pedialyte Regular	ABB
		00981095	Pedialyte Flavored	ABB
926	Electrolyte & Dextrose Oral Pd-1 Sach Pk	00808385	Gastrolyte	ROR .5730
927	Glucose, Potassium Chloride, Sodium Chloride & Sodium Bicarbonate 4g & 0.3g & 0.7g & 0.5g Oral Pd-1 Sach Pk	00540781	Rapolyte	RIC .4500
928	Polyethylene Glycol & Electrolytes Pd 1 Kit			13.3500
		00741175	Klean-Prep	RIC
		+00777838	PegLyte	PMS
929	Polyethylene Glycol & Electrolytes Sol 1L Pk	+00777846	PegLyte	PMS 4.8100
930	Potassium Chloride 20mEq/10mL Inj Sol-10mL Pk	00624756	Potassium Chloride	AST .5162
931	* Potassium Chloride 1.33mEq/mL O/L			.0134
		00208590	Kaochlor-10	ADI
		00436984	K-10	BEE
		00485284	Roychlor	ROY
		#00704504	Kay Ciel	BER
932	Potassium Chloride 2.66mEq/mL O/L	00208604	Kaochlor-20 Concentrate	ADI .0257
933	Potassium Chloride 20mEq/Pouch Oral Pd-3g Pk	00481211	K-Lor	ABB .3593
934	Potassium Chloride 25mEq/Pouch Oral Pd-7.8g Pk	00464813	K-Lyte/Cl	BRI .4616
935	Potassium Chloride 12mEq Eff Tab	00027596	Potassium-Sandoz	SAN .2480
936	Potassium Chloride 6.7mEq LA Tab	00501972	K-Long	ADI .0825
937	* Potassium Chloride 8mEq LA Tab			.0651
		00074225	Slow-K	CIB
		00554308	Slo-Pot 600	ICN .0170
		00602876	Novo-Lente-K	NOP .0207
		00602884	Apo-K	APX .0197

Item 40:00 Electrolytic, Caloric and Water Balance

40:12:00 Replacement Agents

938	Potassium Chloride 10mEq LA Tab	00471496 Kalium Durules	AST	.0718
939	Potassium Chloride 20mEq SR Tab	00713376 K-Dur	KEY	.2483
940	* Potassium Chloride 8mEq LA Cap	00516244 Micro-K Extencaps	ROB	.0731
941	Potassium Chloride 10mEq LA Cap	00632759 Micro-K-10	ROB	.0788
942	* Potassium Gluconate 1.33mEq/mL O/L	00026700 Potassium-Rougier 00208701 Kaon	ROG ADI	.0196
943	Sodium Chloride 0.9% Inj Sol-10mL Pk	00624748 Sodium Chloride (Plastic Vial)	AST	.5162

40:18:00 Potassium-Removing Resins

944	Polystyrene Sodium Sulfonate 1mEq/g Oral Pd-454g Pk	01902776 Kayexalate	WIN	62.9500
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40:28:00 Diuretics

945	Acetazolamide 500mg LA Cap	00127930 Diamox	LED	.6824
946	Acetazolamide 250mg Tab	00014907 Diamox 00488275 Novo-Zolamide 00545015 Apo-Acetazolamide	LED NOP APX	.0281
947	Amiloride HCl 5mg Tab	00487805 Midamor	MSD	.2804
948	Amiloride HCl & Hydrochlorothiazide 5mg & 50mg Tab	00487813 Moduret 00784400 Apo-Amilzide +00886106 Nu-Amilzide	MSD APX NXP	.2461
949	Chlorthalidone 50mg Tab	00010413 Hygroton 00298964 Uridon 00337447 Novo-Thalidone 00360279 Apo-Chlorthalidone 00398365 Chlorthalidone	GEI ICN NOP APX DTC	.0202
950	Chlorthalidone 100mg Tab	00010421 Hygroton #00293881 Uridon 00337455 Novo-Thalidone 00360287 Apo-Chlorthalidone 00398373 Chlorthalidone	GEI ICN NOP APX DTC	.0399
951	Ethacrynic Acid 50mg Tab	00016497 Edecrin	MSD	.2994

Item 40:00 Electrolytic, Caloric and Water Balance

40:28:00 Diuretics

952	Furosemide 20mg/2mL Inj Sol-2mL Pk	00217743 Lasix	HOE	.8600
953	Furosemide 10mg/mL O/L	00432342 Lasix	HOE	.2125
954	Furosemide 20mg Tab	00289590 Lasix 00337730 Novo-Semide 00396788 Apo-Furosemide	HOE NOP APX	.0074
955	Furosemide 40mg Tab	00012580 Lasix 00332275 Furoside 00337749 Novo-Semide 00344079 Uritol 00362166 Apo-Furosemide 00396249 Furosemide	HOE ICN NOP HOR APX DTC	.0079
956	Hydrochlorothiazide 25mg Tab	00016500 HydroDIURIL 00021474 Novo-Hydraside 00092681 Hydrochlorothiazide 00326844 Apo-Hydro 25	MSD NOP DTC APX	.0064
957	Hydrochlorothiazide 50mg Tab	00016519 HydroDIURIL 00021482 Novo-Hydraside 00092703 Hydrochlorothiazide 00312800 Apo-Hydro 50	MSD NOP DTC APX	.0077
958	Hydrochlorothiazide & Spironolactone 25mg & 25mg Tab	00180408 Aldactazide-25 00613231 Novo-Spirozine-25	SEA NOP	.1065
959	Hydrochlorothiazide & Spironolactone 50mg & 50mg Tab	00594377 Aldactazide-50 00657182 Novo-Spirozine-50	SEA NOP	.2751
960	Hydrochlorothiazide & Triamterene 25mg & 50mg Tab	00181528 Dyazide 00441775 Apo-Triazide 00532657 Novo-Triamzide +00865532 Nu-Triazide	SKF APX NOP NXP	.0541
961	Indapamide 2.5mg Tab	00564966 Lozide	SEV	.4495
962	Metolazone 2.5mg Tab	00301663 Zaroxolyn	PWC	.1324
963	Metolazone 5mg Tab	00301698 Zaroxolyn	PWC	.1739
964	Metolazone 10mg Tab	00301671 Zaroxolyn	PWC	.2298

Item 40:00 Electrolytic, Caloric and Water Balance

40:28:00 Diuretics

965	Spironolactone 25mg Tab	00028606 Aldactone 00613215 Novo-Spiroton	SEA NOP	.0857
966	Spironolactone 100mg Tab	00285455 Aldactone 00613223 Novo-Spiroton	SEA NOP	.2625
967	Triamterene 50mg Tab	00299715 Dyrenium	SKF	.1714
968	Triamterene 100mg Tab	00027138 Dyrenium	SKF	.2217

40:40:00 Uricosuric Drugs

969	Probenecid 500mg Tab	00016616 Benemid 00294926 Benuryl	MSD ICN	.1765
970	Sulfinpyrazone 100mg Tab	00010510 Anturan 00441759 Apo-Sulfinpyrazone 00475068 Novo-Pyrazone 00481955 Sulfinpyrazone	GEI APX NOP DTC	.0398
971	Sulfinpyrazone 200mg Tab	00010529 Anturan 00441767 Apo-Sulfinpyrazone 00475076 Novo-Pyrazone 00481947 Sulfinpyrazone	GEI APX NOP DTC	.0664

Item 48:00 Cough Preparations

48:04:00 Antitussives

972	Clophedianol Hydrochloride 5mg/mL O/L	00026328 Ulone	RIK	.0433
973	Codeine Phosphate 5mg/mL O/L	00093114 Codeine 00470651 Codeine Phosphate 00779474 Codeine	DTC SDR NDA	.0188
974	Codeine Phosphate 15mg Tab	00003220 Codeine 00018686 Codeine 00093122 Codeine 00593435 Codeine Phosphate	GLA NDA DTC TCH	.0521
975	Dextromethorphan (as Polistirex) 6mg/mL O/L	00824283 Delsym	FIS	.0336
976	* Dextromethorphan HBr 3mg/mL O/L	00436895 Koffex 00454389 Robidex	ROG ROB	.0085
977	Hydrocodone Bitartrate 1mg/mL O/L	00316970 Robidone 00585580 Hycodan	ROB DUP	.0401
978	Hydrocodone Bitartrate 5mg Tab	00585572 Hycodan	DUP	.3600

48:08:00 Expectorants

979	Acetylcysteine 20% Aero Sol-10mL Pk	00606235 Mucomyst	BRI	6.7500
980	Acetylcysteine 20% Aero Sol-30mL Pk	00990833 Mucomyst	BRI	16.3500
981	* Guaifenesin 20mg/mL O/L	00026468 Robitussin 00026794 Guaifenesin 00990930 Guaifenesin Sugar Free	ROB ROG ROG	.0074
982	Organically bound Iodine (as Iodinated Glycerol) 6mg/mL O/L	00354910 Organidin	HOR	.0189
983	Organically bound Iodine (as Iodinated Glycerol) 15mg Tab	00354902 Organidin	HOR	.0779

Item 52:00 Eye, Ear, Nose and Throat Preparations

52:04:04 Anti-Infectives Antibiotics

984	Bacitracin 500U/g Oph Oint-3g Pk	00327476 Baciguent	UPJ	2.0770
985	Chloramphenicol 1% Oph Oint-3.5g Pk	00001058 Fenicol 00024066 Chloromycetin	ALC PDA	2.1600
986	Chloramphenicol 0.25% Oph Sol	00704598 Pentamycetin	BER	.5040
987	Chloramphenicol 0.5% Oph Sol	00001082 Chloroptic 00221678 Chloromycetin 00707457 Ophtho-Chloram	ALL PDA KNR	.2125
988	Chloramphenicol 0.5% Ot Sol	00349615 Chloromycetin	PDA	.6213
989	Colistin Base & Neomycin Base & Hydrocortisone Acetate 3mg & 3.3mg & 10mg/mL Ot Susp	00476439 Coly-Myacin Otic	PDA	1.6737
990	Framycetin Sulfate 0.5% Oph Oint-5g Pk	00026964 Soframycin	ROU	5.0000
991	Framycetin Sulfate 0.5% Oph Sol	00026921 Soframycin	ROU	.9125
992	Framycetin Sulfate & Gramicidin & Dexamethasone 5mg & 50mcg & 0.5mg/mL Ot Sol	00228052 Sofracort	ROU	1.3437
993	Gentamicin & Betamethasone Sodium Phosphate 3mg & 1mg/mL Oph/Ot Drops	00682217 Garasone	SCH	1.6427
994	Gentamicin Sulfate 0.3% Oph Oint-3.5g Pk	00028339 Garamycin	SCH	7.2300
995	Gentamicin Sulfate 0.3% Oph Sol	00436771 Alcomycin 00512192 Garamycin	ALC SCH	.6500
996	Gentamicin Sulfate 0.3% Ot Sol	00512184 Garamycin	SCH	1.4173
997	Polymyxin B Sulfate & Bacitracin (Zinc) 10000U & 500U/g Oph Oint-3.5g Pk	00299219 Polysporin	BWE	3.4200
998	Polymyxin B Sulfate & Gramicidin 10000U & 0.025mg/mL Oph/Ot Sol	00035343 Polysporin	BWE	.3990
999	Polymyxin B Sulfate & Neomycin Sulfate & Bacitracin (Zinc) 10000U & 5mg & 400U/g Oph Oint-3.5g Pk	00694398 Neosporin	BWE	7.3000

Item 52:00 Eye, Ear, Nose and Throat Preparations

52:04:04 Anti-Infectives Antibiotics

1000	Polymyxin B Sulfate & Neomycin Sulfate & Fluocinolone Acetonide 10000U & 5mg & 0.25mg/mL Ot Sol	00189499 Synalar Bi-Otic	SYN	1.6760
1001	Polymyxin B Sulfate & Neomycin Sulfate & Gramicidin 10000U & 2.5mg & 0.025mg/mL Oph/Ot Sol	00694371 Neosporin	BWE	.7150
1002	Polymyxin B Sulfate & Neomycin Sulfate & Hydrocortisone 10000U & 5mg & 10mg/mL Ot Sol	00694401 Cortisporin	BWE	1.3280
1003	Tobramycin 0.3% Oph Oint	00614254 Tobrex	ALC	2.3171
1004	Tobramycin 0.3% Oph Sol	00513962 Tobrex	ALC	1.6340
1005	Tobramycin & Dexamethasone 0.3% & 0.1% Oph Susp	+00778907 TobraDex	ALC	1.9300

52:04:08 Anti-Infectives Sulfonamides

1006	Sulfacetamide (Sodium) 10% Oph Oint-3.5g Pk	00028347 Sulamyd 00252522 Cetamide	SCH ALC	3.1800
1007	Sulfacetamide (Sodium) 10% Oph Sol	00000965 Isopto Cetamide 00001287 Bleph-10 00028053 Sulamyd 00707465 Ophtho-Sulf	ALC ALL SCH KNR	.0780
1008	Sulfacetamide (Sodium) 30% Oph Sol	00028061 Sulamyd	SCH	.3213

52:04:12 Anti-Infectives Other Anti-Infectives

1009	Iodoxuridine 0.5% Oph Oint-4g Pk	#00027200 Stoxil	SKF	17.4900
1010	Iodoxuridine 0.1% Oph Sol	00001120 Herplex	ALL	.8207
1011	Trifluridine 1% Oph Sol	00687456 Viroptic	BWE	3.4670
1012	Vidarabine 3% Oph Oint-3.5g Pk	00381780 Vira-A	PDA	15.8400

52:08:00 Anti-Inflammatory Agents

1013	Beclomethasone Dipropionate Nas Sp-200 dose Pk	00359688 Beconase 00422053 Vancenase	GLA SCH	10.0300
1014	Beclomethasone Dipropionate 50mcg Nas Sp-200 dose Pk	00638617 Beconase Aqueous	GLA	16.8200

Item 52:00 Eye, Ear, Nose and Throat Preparations

52:08:00 Anti-Inflammatory Agents

1015	Dexamethasone 0.1% Oph Oint-3.5g Pk	00042579 Maxidex	ALC	8.1900
1016	Dexamethasone 0.1% Oph Susp	00042560 Maxidex	ALC	1.5100
1017	Dexamethasone 0.1% Oph/Ot Sol	00016217 Decadron 00627763 Ak-Dex 00724149 Spersadex	MSD AKN DIS	1.1000
1018	Flumethasone Pivalate & Iodochlorhydroxyquin 0.02% & 1% Ot Sol	00074454 Locacorten-Vioform	CIB	1.1800
1019	Flunisolide 0.025% Nas Sp-25mL Pk	00421456 Rhinalar	SYN	18.7400
1020	Fluorometholone 0.1% Oph Susp	00247855 FML	ALL	1.9060
1021	Fluorometholone Acetate 0.1% Oph Susp	00756784 Flarex	ALC	1.6560
1022	Prednisolone Acetate 0.12% Oph Susp	00299405 Pred Mild	ALL	1.2200
1023	Prednisolone Acetate 1% Oph Susp	00301175 Pred Forte 00622931 Ak-Tate 00700401 Ophtho-Tate	ALL AKN KNR	.8138
1024	Prednisolone Acetate & Atropine Sulfate 0.25% & 1% Oph Sol	00411124 Mydrapred	ALC	2.3780
1025	Prednisolone Sodium Phosphate 0.125% Oph Sol	00756172 Inflammase Mild	IOB	1.4800
1026	Prednisolone Sodium Phosphate 1% Oph Sol	00756164 Inflammase Forte	IOB	1.8600

52:16:00 Local Anesthetics

1027	Benzylamine HCl 0.15% Oral Rinse	00574171 Tantum	RIK	.0635
1028	Lidocaine HCl 2% O/L	00001686 Xylocaine Viscous	AST	.0715

52:20:00 Miotics

1029	Carbachol 1.5% Oph Sol	00000655 Isopto Carbachol	ALC	.6347
1030	Carbachol 3% Oph Sol	00000663 Isopto Carbachol	ALC	.7647
1031	Echothiophate Iodide 0.06% Oph Sol	00052817 Phospholine Iodide	AYE	3.4818

Item 52:00 Eye, Ear, Nose and Throat Preparations

<u>52:20:00 Miotics</u>				
1032	Echothiophate Iodide 0.125% Oph Sol	00002313	Phospholine Iodide	AYE 3.9944
1033	Echothiophate Iodide 0.25% Oph Sol	00002348	Phospholine Iodide	AYE 4.5233
1034	Pilocarpine HCl 4% Oph Gel	00575240	Pilopine HS	ALC 2.3900
1035	Pilocarpine HCl 0.5% Oph Sol	00000833	Isopto Carpine	ALC .2920
1036	Pilocarpine HCl 1% Oph Sol	00000841 00725404 00759945	Isopto Carpine Spersacarpine Miocarpine	ALC DIS IOB .2235
1037	Pilocarpine HCl 2% Oph Sol	00000868 00725412 00759961	Isopto Carpine Spersacarpine Miocarpine	ALC DIS IOB .2606
1038	Pilocarpine HCl 4% Oph Sol	00000884 00725439 00760099	Isopto Carpine Spersacarpine Miocarpine	ALC DIS IOB .2970
1039	Pilocarpine HCl 6% Oph Sol	00000892 00759953	Isopto Carpine Miocarpine	ALC IOB .4700
1040	Pilocarpine HCl & Epinephrine Bitartrate 1% & 1% Oph Sol	00760021	E-Pilo 1	IOB 1.0200
1041	Pilocarpine HCl & Epinephrine Bitartrate 2% & 1% Oph Sol	00759996	E-Pilo 2	IOB 1.0600
1042	Pilocarpine HCl & Epinephrine Bitartrate 4% & 1% Oph Sol	00760013	E-Pilo 4	IOB 1.1300
1043	Pilocarpine HCl & Epinephrine Bitartrate 6% & 1% Oph Sol	00760005	E-Pilo 6	IOB 1.1700
<u>52:24:00 Mydriatics</u>				
1044	Atropine Sulfate 1% Oph Oint-3.5g .Pk	00252484 00725471	Atropine Sulfate Atropine	ALC DIS 3.8700
1045	Atropine Sulfate 1% Oph Sol	00035017 00725498 00759929	Isopto Atropine Atropine Atropisol	ALC DIS IOB .6160
1046	Atropine Sulfate 2% Oph Sol	00759937	Atropisol	IOB 1.0500

Item 52:00 Eye, Ear, Nose and Throat Preparations

52:24:00 Mydriatics

1047	Dipivefrin HCl 0.1% Oph Sol	00529117 Propine	ALL	1.6120
1048	Epinephrine HCl 0.5% Oph Sol	00001090 Epifrin	ALL	.7127
1049	Epinephrine HCl 1% Oph Sol	00001104 Epifrin	ALL	.8100
1050	Epinephrine HCl 2% Oph Sol	00001112 Epifrin	ALL	.8353
1051	Homatropine HBr 2% Oph Sol	00000779 Isopto Homatropine	ALC	.5480
1052	Homatropine HBr 5% Oph Sol	00000787 Isopto Homatropine	ALC	.6507
1053	Phenylephrine HCl 0.12% Oph Sol	00395161 Prefrin	ALL	.3456
1054	Phenylephrine HCl 2.5% Oph Sol	00465763 Mydfrin	ALC	.8820

52:32:00 Vasoconstrictors

1055	Naphazoline HCl 0.1% Oph Sol otc 15mL Pk	00001147 Albalon 00390283 Naphcon Forte 00750786 Opcon 00759880 Vasocon	ALL ALC BAU IOB	6.7500
1056	Oxymetazoline HCl 0.025% Oph Sol	00543454 Ocuclear	SCH	.1807

52:36:00 Other Eye, Ear, Nose and Throat Agents

1057	Acetazolamide 500mg LA Cap	00127930 Diamox	LED	.6824
1058	Acetazolamide 250mg Tab	00014907 Diamox 00488275 Novo-Zolamide 00545015 Apo-Acetazolamide	LED NOP APX	.0281
1059	Betaxolol HCl 0.5% Oph Sol	00695688 Betoptic	ALC	2.1560
1060	Dextran 70/Hydroxypropyl Methylcellulose Oph Sol	00390291 Tears Naturale	ALC	.3087
1061	Dextran 70/Hydroxypropyl Methylcellulose & Polyquad 0.1% & 0.3% & 0.001% Oph Sol	+00743445 Tears Naturale II	ALC	.3087
1062	Flurbiprofen Sodium 0.03% Oph Sol	00766046 Ocufen	ALL	4.3080

Item 52:00 Eye, Ear, Nose and Throat Preparations

52:36:00 Other Eye, Ear, Nose and Throat Agents

1063	Indomethacin 1% Oph Susp	00594458 Indocid	MSD	4.1800
1064	Levobunolol HCl 0.5% Oph Sol	00637661 Betagan	ALL	2.3280
1065	Methazolamide 50mg Tab	00127949 Neptazane	LED	.3817
1066	* Methylcellulose 0.5% Oph Sol	00000809 Isopto Tears	ALC	.2980
1067	* Methylcellulose 1% Oph Sol	00000817 Isopto Tears 00750808 Murocel	ALC BAU	.2774
1068	Petrolatum & Mineral Oil 55% & 42.5% Oph Oint-3.5g Pk dpp	00210889 Lacri-Lube	ALL	4.2009
1069	Petrolatum & Mineral Oil 80% & 20% Oph Oint-3.5g Pk dpp	00750778 Duolube	BAU	3.8100
1070	Petrolatum & Mineral Oil 94% & 3% Oph Oint-3.5g Pk dpp	00469688 Duratears	ALC	3.8400
1071	Polyvinyl Alcohol 1% Oph Sol	00759902 Hypotears	IOB	.3400
1072	Polyvinyl Alcohol 1.4% Oph Sol	00045616 Liquifilm Tears	ALL	.3469
1073	Polyvinyl Alcohol 3% Oph Sol	00368911 Liquifilm Forte	ALL	.4166
1074	Polyvinyl Alcohol & Polyvinylpyrrolidone Oph Sol	00579408 Tears Plus	ALL	.3574
1075	Sodium Chloride 5% Oph Oint-3.5g Pk	00750816 Muro-128	BAU	4.4800
1076	Sodium Chloride 5% Oph Sol	00750824 Muro-128	BAU	.2907
1077	Sodium Cromoglycate 2% Nas Sol-26mL Pk	00605255 Rynacrom	FIS	20.9200
1078	Sodium Cromoglycate 2% Oph Sol	00394300 Opticrom	FIS	1.4530
1079	Sodium Cromoglycate 10mg/Cart Pd Inh	00328944 Rynacrom	FIS	.2738
1080	Timolol Maleate 0.25% Oph Sol	00451193 Timoptic 00755826 Apo-Timop	MSD APX	1.7800
1081	Timolol Maleate 0.5% Oph Sol	00451207 Timoptic 00755834 Apo-Timop	MSD APX	2.1100

Item 56:00 Gastrointestinal Drugs

56:04:00 Antacids and Adsorbents

1082	Alginic Acid & Aluminum Hydroxide (Dried Gel) 200mg & 80mg Chew Tab	00696021 Gaviscon	STP	.0699
1083	* Aluminum Hydroxide 60mg/mL O/L	00034002 Amphojel	WYE	.0107
1084	Aluminum Hydroxide 600mg Tab	00208965 Amphojel	WYE	.0888
1085	Aluminum Hydroxide (Dried Gel) 600mg Tab	00313297 Alu-Tab	RIK	.1160
1086	Aluminum Hydroxide & Magnesium Hydroxide 600mg & 300mg Chew Tab dpp	00541125 Maalox TC 00621544 Diovol Ex	ROR HOR	.1038
1087	* Aluminum Hydroxide & Magnesium Hydroxide 40mg & 40mg/mL O/L dpp	00013625 Univol 00026530 Maalox 00261173 Neutralca-S 00476471 Gelusil	HOR ROR DES PDA	.0073
1088	Aluminum Hydroxide & Magnesium Hydroxide 80mg & 80mg/mL O/L dpp	00420646 Mylanta Double Strength Plain	PDA	.0143
1089	Aluminum Hydroxide & Magnesium Hydroxide 100mg & 100mg/mL O/L dpp	00515655 Amphojel 500	WYE	.0152
1090	Aluminum Hydroxide & Magnesium Hydroxide 120mg & 60mg/mL O/L dpp	00491217 Diovol Ex 00497037 Maalox TC	HOR ROR	.0148
1091	Aluminum Hydroxide & Magnesium Hydroxide 130mg & 70mg/mL O/L dpp	00531154 Gelusil Extra Strength	PDA	.0146
1092	Aluminum Hydroxide & Magnesium Hydroxide 200mg & 200mg Tab dpp	00476455 Gelusil	PDA	.0695
1093	Aluminum Hydroxide & Magnesium Hydroxide 400mg & 400mg Tab dpp	00026549 Maalox 00483605 Gelusil Extra Strength	ROR PDA	.0736
1094	Magaldrate 480mg Chew Tab	00571229 Riopan	AYE	.0543
1095	Magaldrate 96mg/mL O/L	00571202 Riopan	AYE	.0088

Item 56:00 Gastrointestinal Drugs

56:04:00 Antacids and Adsorbents

1096	Magaldrate 1080mg/mL O/L	00640476 Riopan Extra Strength	AYE	.0128
1097	* Magnesium Hydroxide 80mg/mL O/L otc 500mL Pk	00036218 Milk of Magnesia 00093807 Milk of Magnesia	WAM DTC	3.6000
1098	Magnesium Hydroxide 300mg Tab otc 100 Pk	00093815 Milk of Magnesia	DTC	2.8000
1099	Sodium Alginate & Aluminum Hydroxide 50mg & 20mg/mL O/L	00541168 Gaviscon Liquid	STP	.0145

56:08:00 Antidiarrhea Agents

1100	Camphorated Tincture of Opium (Paregoric) O/L	00095680 Camphor Co. Tincture	DTC	.0228
1101	Diphenoxylate HCl 0.5mg/mL O/L	00399353 Lomotil	SEA	.2016
1102	Diphenoxylate HCl 2.5mg Tab	00399345 Lomotil	SEA	.3383
1103	Kaolin & Pectin & Paregoric O/L	00346756 Donnagel-PG	ROB	.0334
1104	Loperamide HCl 2mg Cap	00579343 Imodium	JAN	.5345
1105	Loperamide HCl 0.2mg/mL O/L	00610062 Imodium	JAN	.0977

56:12:00 Cathartics

1106	Bisacodyl 2mg/mL Enema otc 5mL Pk	00286265 Dulcolax	BOE	4.7000
1107	* Bisacodyl 5mg Ent Tab otc 30 Pk	00254142 Dulcolax 00545023 Apo-Bisacodyl	BOE APX	2.2000
1108	Bisacodyl 5mg Sup otc 3 Pk	00003867 Dulcolax 00619485 Bisacodyl	BOE TCH	3.9000
1109	* Bisacodyl 10mg Sup otc 6 Pk	00003875 Dulcolax 00261327 Bisacodyl 00404802 Bisacodyl	BOE ICN TCH	2.8000
1110	Castor Oil Emuls otc 115mL Pk	00127922 Neoloid	LED	12.0000
1111	Castor Oil O/L otc 50mL Pk	00094080 Castor Oil 00179140 Castor Oil	DTC SDR	1.8000

Item 56:00 Gastrointestinal Drugs

56:12:00 Cathartics

1112	Docusate Calcium (Dioctyl Calcium Sulfosuccinate) 240mg Cap otc 30 Pk	00012491 Surfak 00664553 PMS-Docusate Calcium	HOE PMS	7.1000
1113	* Docusate Sodium (Dioctyl Sodium Sulfosuccinate) 100mg Cap otc 100 Pk	00464767 Colace 00472166 Regulex 00703494 PMS-Docusate Sodium 00716731 Docusate Sodium	BRI AYE PMS TAR	9.0000
1114	Docusate Sodium (Dioctyl Sodium Sulfosuccinate) 4mg/mL O/L otc 250mL Pk	00464783 Colace 00703508 PMS-Docusate Sodium Syrup	BRI PMS	12.3000
1115	Docusate Sodium (Dioctyl Sodium Sulfosuccinate) 10mg/mL O/L otc 25mL Pk	00464775 Colace	BRI	9.5000
1116	* Glycerin 1.8g Sup otc 24 Pk	00094056 Glycerin 00145416 Glycerin	DTC ROG	2.6500
1117	* Glycerin 2.7g Sup otc 24 Pk	00882518 Glycerin 00990825 Glycerin	DTC ROG	2.5000
1118	* Grain & Citrus Fibre Tab otc 100 Pk	00595829 Novo-Fibre 00779768 Fibyrax	NOP LED	5.7000
1119	Lactulose 40% Jelly-Unidose Pk	00739561 GEL-OSE	JOU	.4350
1120	Lactulose 667mg/mL O/L	00703486 PMS-Lactulose	PMS	.0276
1121	* Magnesium Hydroxide 80mg/mL O/L otc 500mL Pk	00036218 Milk of Magnesia 00093807 Milk of Magnesia	WAM DTC	3.6000
1122	Magnesium Hydroxide 300mg Tab otc 100 Pk	00093815 Milk of Magnesia	DTC	2.8000
1123	Mineral Oil Enema otc 130mL Pk	00107875 Fleet	FRS	5.8000
1124	Mineral Oil 78% Gel otc 225g Pk	00608734 Lansoyl	JOU	8.7000
1125	* Mineral Oil O/L otc 500mL Pk	00093947 Mineral Oil	DTC	4.5500
1126	Psyllium Mucilloid Gran otc 250g Pk	00536695 Prodiem Plain	ROR	10.4500

Item 56:00 Gastrointestinal Drugs

56:12:00 Cathartics

1127	* Psyllium Mucilloid Oral Pd otc 56dosePk	00242438 Metamucil 00551546 Novo-Mucilax 00587559 Fibre Mucilax 00628875 Natural Source Laxative 00643688 Metamucil Sugar Free +00678945 Novo-Mucilax Sugar Free	SEA NOP SDR LEA SEA NOP	4.7000
1128	Sennosides A & B 15mg/3g Gran otc 200g Pk	00026042 Senokot	PFR	13.4000
1129	Sennosides A & B 1.7mg/mL O/L otc 250mL Pk	00367729 Senokot	PFR	13.7000
1130	Sennosides A & B 30mg Sup otc 6 Pk	00026107 Senokot	PFR	5.8000
1131	* Sennosides A & B 8.6mg Tab otc 100 Pk	00026158 Senokot 00604402 Glysennid	PFR SAN	11.0000
1132	* Sennosides A & B 12mg Tab otc 100 Pk	00027502 Glysennid	SAN	13.3000
1133	Sodium Biphosphate & Sodium Phosphate 160mg & 60mg/mL Ped Rect Sol otc 65mL Pk	00108065 Fleet	FRS	3.9000
1134	* Sodium Biphosphate & Sodium Phosphate 160mg & 60mg/mL Rect Sol otc 130mL Pk	00009911 Fleet 00528463 ABCO Sodium Phosphate Enema	FRS MEM	1.4000
1135	Sodium Citrate & Sodium Lauryl Sulfoacetate Micro Enema otc 4 Pk	00024848 Microlax	PHD	7.7000
<u>56:16:00 Digestants</u>				
1136	Aprotinin 100000KIU/10mL Inj Sol-10mL Pk	00513954 Trasylol	MIT	29.2068
1137	Glutamic Acid HCl 340mg Cap	00015210 Acidulin	LIL	.1815
1138	Pancrelipase equivalent to Lipase & Amylase & Protease 8000 & 30000 & 30000USP U Cap	00263818 Cotazym	ORG	.1705
1139	Pancrelipase equivalent to Lipase & Amylase & Protease 4000 & 12000 & 12000USP U Ent Microsph Cap	00789445 Pancrease MT4	MCN	.3185

Item 56:00 Gastrointestinal Drugs

56:16:00 Digestants

1140	Pancrelipase equivalent to Lipase & Amylase & Protease 4000 & 20000 & 25000USP U Ent Microsph Cap	00591548 Pancrease	MCN	.3180
1141	Pancrelipase equivalent to Lipase & Amylase & Protease 8000 & 30000 & 30000USP U Ent Microsph Cap	00502790 Cotazym ECS	ORG	.3079
1142	Pancrelipase equivalent to Lipase & Amylase & Protease 16800 & 70000 & 70000USP U/0.7g Pd-114g Pk	00651672 Viokase	ROB	36.5400
1143	Pancrelipase equivalent to Lipase & Amylase & Protease 8000 & 30000 & 30000USP U Tab	00651680 Viokase	ROB	.1490

56:22:00 Antiemetics and Antinauseants

1144	Dimenhydrinate 50mg/5mL Inj Sol-5mL Pk	00013560 Gravol	HOR	1.1410
1145	Dimenhydrinate 250mg/5mL Inj Sol-5mL Pk	00013579 Gravol	HOR	3.1133
1146	* Dimenhydrinate 3mg/mL O/L	00230197 Gravol	HOR	.0403
1147	* Dimenhydrinate 50mg Sup	00013595 Gravol	HOR	.2700
1148	* Dimenhydrinate 100mg Sup	00013609 Gravol	HOR	.2843
1149	Dimenhydrinate 15mg Tab	00511196 Gravol Filmkote	HOR	.1390
1150	* Dimenhydrinate 50mg Tab	00013803 Gravol Filmkote 00021423 Novo-Diminate 00363766 Apo-Dimenhydrinate 00398381 Dimenhydrinate 00586331 PMS-Dimenhydrinate	HOR NOP APX DTC PMS	.0080
1151	Meclizine HCl 25mg Tab	00220442 Bonamine	PFI	.2554
1152	Nabilone 1mg Cap	00548375 Cesamet	LIL	6.0835

56:40:00 Miscellaneous G.I. Drugs

1153	5-Aminosalicylic Acid 500mg Sup	00784508 Salofalk	INF	1.0620
1154	5-Aminosalicylic Acid 4g/60g Rect Susp-60g Pk	00709034 Salofalk	INF	5.4100

Item	56:00 Gastrointestinal Drugs			
<u>56:40:00 Miscellaneous G.I. Drugs</u>				
1155	5-Aminosalicylic Acid 400mg Tab	00752630	Asacol	EAT .4460
1156	Betamethasone Disodium Phosphate 5mg/100mL Enema-100mL Pk	00012181	Betnesol	GLA 7.6386
1157	Cimetidine 60mg/mL O/L	00397482	Tagamet	SKF .1656
1158	Cimetidine 200mg Tab	00546232	Peptol	HOR .0819
		00563560	Tagamet	SKF
		00582409	Novo-Cimetidine	NOP
		00584215	Apo-Cimetidine	APX
		+00865796	Nu-Cimet	NXP
1159	Cimetidine 300mg Tab	00397474	Tagamet	SKF .0960
		00487872	Apo-Cimetidine	APX
		00546240	Peptol	HOR
		00582417	Novo-Cimetidine	NOP
		+00865818	Nu-Cimet	NXP
1160	Cimetidine 400mg Tab	00563579	Tagamet	SKF .1510
		00568449	Peptol	HOR
		00600059	Apo-Cimetidine	APX
		00603678	Novo-Cimetidine	NOP
		+00865826	Nu-Cimet	NXP
1161	Cimetidine 600mg Tab	00563587	Tagamet	SKF .1921
		00584282	Peptol	HOR
		00600067	Apo-Cimetidine	APX
		00603686	Novo-Cimetidine	NOP
		+00865834	Nu-Cimet	NXP
1162	Cimetidine 800mg Tab	00618616	Peptol	HOR .2811
		00653411	Tagamet	SKF
		00663727	Novo-Cimetidine	NOP
		00749494	Apo-Cimetidine	APX
1163	Cisapride Monohydrate 5mg Tab	+00836311	Prepulsid	JAN .2743
1164	Domperidone Maleate 10mg Tab	#00855820	Motilium	JAN .2249
1165	Famotidine 20mg Tab	00710121	Pepcid	MSD .8838
1166	Famotidine 40mg Tab	00710113	Pepcid	MSD 1.5909
1167	Hydrocortisone 100mg/60mL Enema-60mL Pk	00230316	Hycort	ICN 5.4900
		00661856	Cortenema	INF

Item 56:00 Gastrointestinal Drugs

56:40:00 Miscellaneous G.I. Drugs

1168	Lactulose 666.7mg/mL O/L	00444316 Cephulac 00690686 Acilac	MER TCH	.0285
1169	Metoclopramide HCl 10mg/2mL Inj Sol-2mL Pk	00314706 Maxeran 00386006 Reglan	NRD ROB	1.3818
1170	Metoclopramide HCl 1mg/mL O/L	00314714 Maxeran 00386022 Reglan	NRD ROB	.0292
1171	Metoclopramide HCl 5mg Tab	00572268 Maxeran 00631671 Reglan 00842826 Apo-Metoclop	NRD ROB APX	.0558
1172	Metoclopramide HCl 10mg Tab	00314722 Maxeran 00386014 Reglan 00603775 Emex 00842834 Apo-Metoclop	NRD ROB BEE APX	.0586
1173	Misoprostol 100mcg Tab	00813966 Cytotec	SEA	.2410
1174	Misoprostol 200mcg Tab	00632600 Cytotec	SEA	.4228
1175	Nizatidine 150mg Cap	00778338 Axid	LIL	.7462
1176	Nizatidine 300mg Cap	00778346 Axid	LIL	1.3519
1177	Pirenzepine Dihydrochloride 50mg Tab	00608998 Gastrozepin	BOE	.6413
1178	Ranitidine HCl 15mg/mL Oral Sol-10mL Pk	00782386 Zantac	GLA	2.3630
1179	Ranitidine HCl 50mg/2mL Inj Sol-2mL Pk	00603791 Zantac	GLA	2.3700
1180	Ranitidine HCl 150mg Tab	00553379 Zantac 00733059 Apo-Ranitidine 00828564 Novo-Ranidine 00828823 Ranitidine +00865737 Nu-Ranit	GLA APX NOP KNR NXP	.7160
1181	Ranitidine HCl 300mg Tab	00641790 Zantac 00733067 Apo-Ranitidine 00828556 Novo-Ranidine 00828688 Ranitidine +00865745 Nu-Ranit	GLA APX NOP KNR NXP	1.3503
1182	Sucralfate 500mg/5mL Oral Sol	00836370 Sulcrate	NRD	.0472

Item 56:00 Gastrointestinal Drugs

56:40:00 Miscellaneous G.I. Drugs

1183	Sucralfate 1g Tab	00506346 Sulcrate	NRD	.4410
1184	Sulfasalazine 3g/100mL Enema-100mL Pk	00544442 Salazopyrin	PHD	6.1000
1185	Trimebutine Maleate 100mg Tab	00587869 Modulon	JOU	.2700

Item 60:00 Gold Compounds

1186	Auranofin 3mg Cap	00600733 Ridaura	SKF	1.2093
1187	Aurothioglucose 50mg/mL Inj Sol 10mL Pk	+00855774 Solganal	SCH	10.0000
1188	Sodium Aurothiomalate 10mg/mL Inj Sol-1mL Pk	00025062 Myochrysine	RPP	8.6500
1189	Sodium Aurothiomalate 25mg/mL Inj Sol-1mL Pk	00025070 Myochrysine	RPP	10.4900
1190	Sodium Aurothiomalate 50mg/mL Inj Sol-1mL Pk	00025089 Myochrysine	RPP	16.2900

Item 64:00 Heavy Metal Antagonists

1191	Calcium Disodium Edetate 1000mg/5mL Inj Sol-5mL Pk	00026239 Calcium Disodium Versenate	RIK	18.0083
1192	Penicillamine 125mg Cap	00497894 Cuprimine	MSD	.4802
1193	Penicillamine 250mg Cap	00016055 Cuprimine	MSD	.7199
1194	Penicillamine 250mg Tab	00511641 Depen	HOR	.5690

Item 68:00 Hormones and Substitutes

68:04:00 Corticosteroids

1195	Beclomethasone Dipropionate 100mcg/blister Pd Inh-120 dose Pk	00828521	Beclodisk Diskhaler	GLA	25.6500
1196	Beclomethasone Dipropionate 200mcg/blister Pd Inh-120 dose Pk	00828548	Beclodisk Diskhaler	GLA	34.9300
1197	Beclomethasone Dipropionate 250mcg/met dose Aero Inh-200dosePk	00768707	Becloforte	GLA	65.7200
1198	Beclomethasone Dipropionate Aero Pd-200 dose Pk	00334243 00374407	Beclovent Vanceril	GLA SCH	10.0300
1199	Beclomethasone Dipropionate 100mcg/Cart Pd Inh	00545325	Beclovent Rotacaps	GLA	.2137
1200	Beclomethasone Dipropionate 200mcg/Cart Pd Inh	00545333	Beclovent Rotacaps	GLA	.2911
1201	Betamethasone 0.5mg Tab	00028185	Celestone	SCH	.3620
1202	Betamethasone Acetate & Betamethasone Disodium Phosphate 3mg & 3mg/mL Inj Susp-1mL Pk	00028096	Celestone Soluspan	SCH	4.4751
1203	Budesonide 200mcg/met dose Aero Inh-100dosePk	00634549	Pulmicort	AST	31.0000
1204	Budesonide 200mcg/met dose Inh-100dosePk	00814091	Pulmicort Spacer Inhaler	AST	31.0000
1205	Budesonide 100mcg/met dose Pd Inh 200 dose Pk	+00852074	Pulmicort Turbuhaler	AST	29.5500
1206	Budesonide 200mcg/met dose Pd Inh 200 dose Pk	+00851752	Pulmicort Turbuhaler	AST	59.1000
1207	Budesonide 50mcg/met dose Nas Aero 200dosePk	+00636460	Rhinocort	AST	10.2500
1208	Cortisone Acetate 5mg Tab	00016438	Cortone	MSD	.1102
1209	Cortisone Acetate 25mg Tab	00016446 00249963 00280437	Cortone Cortisone Cortisone-ICN	MSD UPJ ICN	.1283
1210	Dexamethasone 0.5mg Tab	00016462 00295094 #00501050	Decadron Dexasone Deronil	MSD ICN SCH	.0930
1211	Dexamethasone 0.75mg Tab	00285471	Dexasone	ICN	.1369

Item 68:00 Hormones and Substitutes

68:04:00 Corticosteroids

1212	Dexamethasone 4mg Tab	00354309 Decadron 00489158 Dexasone #00504416 Deronil	MSD ICN SCH	.2222
1213	Dexamethasone 21-Phosphate 20mg/5mL Inj Sol-5mL Pk	00213624 Decadron	MSD	16.7200
1214	Fludrocortisone Acetate 0.1mg Tab	00029351 Florinef	SQU	.2015
1215	Flunisolide 250mcg/Inhalation Aero Pd-100dose Pk	00790486 Bronalide	BOE	15.4400
1216	Hydrocortisone 20mg Tab	00030929 Cortef	UPJ	.2350
1217	Hydrocortisone Sodium Succinate Inj Pd- 100mg Pk	00030600 Solu-Cortef	UPJ	3.0800
1218	Hydrocortisone Sodium Succinate Inj Pd- 250mg Pk	00030619 Solu-Cortef	UPJ	5.3500
1219	Hydrocortisone Sodium Succinate Inj Pd- 500mg Pk	00030627 Solu-Cortef	UPJ	7.8800
1220	Hydrocortisone Sodium Succinate Inj Pd-1000mg Pk	00030635 Solu-Cortef	UPJ	13.3100
1221	Methylprednisolone 4mg Tab	00030988 Medrol	UPJ	.3125
1222	Methylprednisolone Acetate 40mg/mL Inj Susp-1mL Pk	00030759 Depo-Medrol	UPJ	4.5100
1223	Methylprednisolone Acetate 80mg/mL Inj Susp-1mL Pk	00030767 Depo-Medrol	UPJ	8.6500
1224	Methylprednisolone Acetate 100mg/5mL Inj Susp-5mL Pk	00030740 Depo-Medrol	UPJ	9.9000
1225	Methylprednisolone Sodium Succinate Inj Pd- 40mg Pk	00030643 Solu-Medrol	UPJ	4.3300
1226	Methylprednisolone Sodium Succinate Inj Pd-125mg Pk	00030651 Solu-Medrol	UPJ	10.2800
1227	Methylprednisolone Sodium Succinate Inj Pd-500mg Pk	00030678 Solu-Medrol	UPJ	25.7600
1228	Prednisone 1mg Tab	00271373 Winpred 00598194 Apo-Prednisone	ICN APX	.1093

Item 68:00 Hormones and Substitutes

68:04:00 Corticosteroids

1229	Prednisone 5mg Tab	00021695 Novo-Prednisone 00093629 Prednisone 00210188 Deltasone 00312770 Apo-Prednisone 00610623 Prednisone	NOP DTC UPJ APX KNR	.0098
1230	Prednisone 50mg Tab	00232378 Novo-Prednisone 00252417 Deltasone 00550957 Apo-Prednisone	NOP UPJ APX	.1060
1231	Triamcinolone 2mg Tab	00015016 Aristocort	LED	.2747
1232	Triamcinolone 4mg Tab	00015024 Aristocort	LED	.4740
1233	Triamcinolone Acetonide 40mg/mL Inj Susp-1mL Pk	00990876 Kenalog-40	SQU	6.5500
1234	Triamcinolone Acetonide 200mcg/met dose Aero Inh-240dosePk	00769983 Azmacort	ROR	15.2400
1235	Triamcinolone Acetonide 50mg/5mL Inj Susp-5mL Pk	00460761 Kenalog-10	SQU	14.1000
1236	Triamcinolone Acetonide 200mg/5mL Inj Susp-5mL Pk	00029300 Kenalog-40	SQU	22.2500
1237	Triamcinolone Hexacetonide 20mg/mL Inj Susp-1mL Pk	00297151 Aristospan	LED	5.8485

68:08:00 Androgens

1238	Danazol 50mg Cap	00491764 Cyclomen	WIN	.6838
1239	Danazol 100mg Cap	00358754 Cyclomen	WIN	1.0146
1240	Danazol 200mg Cap	00358762 Cyclomen	WIN	1.6212
1241	Fluoxymesterone 5mg Tab	00030902 Halotestin	UPJ	.1950
1242	Methyltestosterone 10mg Tab	00005622 Metandren	CIB	.3563
1243	Methyltestosterone 25mg Tab	00005630 Metandren	CIB	.8955
1244	Nandrolone Phenpropionate 100mg/2mL Oily Inj Sol-2mL Pk	00022489 Durabolin	ORG	24.2500
1245	Nandrolone Phenpropionate 125mg/5mL Oily Inj Sol-5mL Pk	00022470 Durabolin	ORG	30.0000

Item 68:00 Hormones and Substitutes

68:08:00 Androgens

1246	Oxymetholone 50mg Tab	00189421 Anapolon-50	SYN	1.5762
1247	Stanozolol 2mg Tab	01902709 Winstrol	WIN	.2960
1248	Testosterone Cypionate 100mg/mL Oily Inj Sol-1mL Pk	00030783 Depo-Testosterone	UPJ	4.2500
1249	Testosterone Enanthate 1000mg/5mL Oily Inj Sol-5mL Pk	00029246 Delatestryl	SQU	21.2000

68:16:00 Estrogens

1250	Chlorotrianisene 12mg Cap	00017965 Tace	MER	.5928
1251	Conjugated Estrogens 0.3mg Tab	00002569 Premarin	AYE	.0787
1252	Conjugated Estrogens 0.625mg Tab	00002577 Premarin 00265470 C.E.S.	AYE ICN	.0725
1253	Conjugated Estrogens 1.25mg Tab	00002585 Premarin 00265489 C.E.S.	AYE ICN	.1211
1254	Conjugated Estrogens 2.5mg Tab	00002593 Premarin	AYE	.4123
1255	Conjugated Estrogens 0.625mg/g Vag Cr	00002089 Premarin	AYE	.3307
1256	Dienestrol 0.1mg/g Vag Cr-App	00990531 Dienestrol	ORT	.1091
1257	Dienestrol 0.1mg/g Vag Cr	00441295 Dienestrol	ORT	.1023
1258	Ethinyl Estradiol 0.02mg Tab	00028215 Estinyl	SCH	.0781
1259	Ethinyl Estradiol 0.05mg Tab	00028223 Estinyl	SCH	.1287
1260	Ethinyl Estradiol 0.5mg Tab	00028231 Estinyl	SCH	.2801
1261	Piperazine Estrone Sulfate (Estropipate) 1.5mg Tab	00282685 Ogen	ABB	.2618
1262	Piperazine Estrone Sulfate (Estropipate) 3mg Tab	00282677 Ogen	ABB	.4141
1263	Stilboestrol 0.5mg Tab	00003352 Stilboestrol	GLA	.2499

Item 68:00 Hormones and Substitutes

68:16:00 Estrogens

1264	Stilboestrol 1mg Tab	00003360 Stilboestrol	GLA	.2227
1265	Stilboestrol Sodium Diphosphate 250mg/5mL Inj Sol-5mL Pk	00013587 Honvol	HOR	6.9250
1266	Stilboestrol Sodium Diphosphate 100mg Tab	00013781 Honvol	HOR	.8728
1267	Sulfanilamide & Allantoin & Aminacrine HCl & Dienestrol Vag Cr	00134198 AVC/Dienestrol	MER	.2888

68:20:02 Anti-Diabetic Agents Oral Anti-Diabetic Agents

1268	Acetohexamide 500mg Tab	00015598 Dimelor	LIL	.3935
1269	Chlorpropamide 100mg Tab	00024708 Diabinese 00399302 Apo-Chlorpropamide	PFI APX	.0457
1270	Chlorpropamide 250mg Tab	00021350 Novo-Propamide 00024716 Diabinese 00312711 Apo-Chlorpropamide 00377937 Chlorpropamide	NOP PFI APX DTC	.0420
1271	Glyburide 2.5mg Tab	00454753 Diabeta 00720933 Euglucon +00808733 Alpha-Glibenclamide	HOE BOM GEN	.0906
1272	Glyburide 5mg Tab	00012599 Diabeta 00720941 Euglucon +00808741 Alpha-Glibenclamide	HOE BOM GEN	.1641
1273	Metformin HCl 500mg Tab	00314552 Glucophage	NRD	.1838
1274	Tolbutamide 500mg Tab	00012602 Orinase 00013889 Mobenol 00021849 Novo-Butamide 00093033 Tolbutamide 00312762 Apo-Tolbutamide	HOE HOR NOP DTC APX	.0234

68:20:10 Anti-Diabetic Agents Insulins (Rapid Acting)

1275	Insulin (Neutral) Human Semi-Synthetic 100U/mL Inj Sol otc 3x2.5CPk	00983870 Velosulin Human	HOR	22.6000
1276	Insulin (Neutral) Human Semi-Synthetic 1000U/10mL Inj Sol otc 10mL Pk	00632686 Velosulin Human	HOR	22.6000
1277	Insulin (Neutral) Pork 1000U/10mL Inj Sol otc 10mL Pk	00552267 Velosulin	HOR	24.7000

Item 68:00 Hormones and Substitutes

68:20:10 Anti-Diabetic Agents Insulins (Rapid Acting)

1278	Insulin (Semilente) Beef & Pork 1000U/10mL Inj Susp otc 10mL Pk	00446602 Iletin Semilente 00612251 Semilente Insulin	LIL NOO	15.5000 18.7000
1279	Insulin (Zinc Crystalline) Beef & Pork 1000U/10mL Inj Sol otc 10mL Pk	00446564 Iletin Regular 00612227 Insulin-Toronto	LIL NOO	15.5000 18.7000
1280	Insulin (Zinc Crystalline) Human Biosynthetic (rDNA Origin) 1000U/10mL Inj Sol otc 10mL Pk	00586714 Humulin Regular	LIL	20.9000
1281	Insulin (Zinc Crystalline) Pork 1000U/10mL Inj Sol otc 10mL Pk	00513644 Iletin II Regular	LIL	26.6000
1282	Insulin Human Semi-Synthetic 150U/1.5mL Inj Sol otc 5x1.5 Pk	00980765 Novolin-Toronto (Regular) Penfill	NOO	22.4000
1283	Insulin Human Semi-Synthetic 1000U/10mL Inj Sol otc 10mL Pk	00612189 Novolin-Toronto (Regular)	NOO	22.4000

68:20:12 Anti-Diabetic Agents Insulins (Intermediate Acting)

1284	Insulin (Isophane) Beef & Pork 1000U/10mL Inj Susp otc 10mL Pk	00446572 Iletin NPH 00612235 NPH Insulin	LIL NOO	15.5000 18.7000
1285	Insulin (Isophane) Human Biosynthetic (rDNA Origin) 1000U/10mL Inj Susp otc 10mL Pk	00587737 Humulin NPH	LIL	20.9000
1286	Insulin (Isophane) Human Semi-Synthetic 100U/mL Inj Susp otc 3x2.5CPk	00983810 Insulatard Human	HOR	22.6000
1287	Insulin (Isophane) Human Semi-Synthetic 150U/1.5mL Inj Susp otc 5x1.5 Pk	00981044 Novolin-NPH Penfill	NOO	22.4000
1288	Insulin (Isophane) Human Semi-Synthetic 1000U/10mL Inj Susp otc 10mL Pk	00612197 Novolin-NPH 00632651 Insulatard Human	NOO HOR	22.4000 22.6000
1289	Insulin (Isophane) Pork 1000U/10mL Inj Susp otc 10mL Pk	00514551 Iletin II NPH 00552275 Insulatard	LIL HOR	26.6000 24.7000
1290	Insulin (Lente) Beef & Pork 1000U/10mL Inj Susp otc 10mL Pk	00446580 Iletin Lente 00612278 Lente Insulin	LIL NOO	15.5000 18.7000
1291	Insulin (Lente) Human Semi-Synthetic 1000U/10mL Inj Susp otc 10mL Pk	00612200 Novolin-Lente	NOO	22.4000

Item 68:00 Hormones and Substitutes

68:20:12 Anti-Diabetic Agents Insulins (Intermediate Acting)

1292	Insulin (Lente) Pork 1000U/10mL Inj Susp otc 10mL Pk	00514535 Iletin II Lente	LIL	26.6000
1293	Insulin Zinc Suspension Medium Human Biosynthetic (rDNA Origin) 1000U/10mL Inj Susp otc 10mL Pk	00646148 Humulin L Lente	LIL	20.9000

68:20:14 Anti-Diabetic Agents Insulins (Long Acting)

1294	Insulin (Protamine Zinc) Beef & Pork 1000U/10mL Inj Susp otc 10mL Pk	00446610 Iletin Protamine Zinc	LIL	15.5000
1295	Insulin (Ultralente) Beef & Pork 1000U/10mL Inj Susp otc 10mL Pk	00446599 Iletin Ultralente 00612243 Ultralente Insulin	LIL NOO	15.5000 18.7000
1296	Insulin Zinc Suspension Prolonged, Human Biosynthetic (rDNA Origin) 1000U/10mL Inj Susp otc 10mL Pk	00733075 Humulin-U Ultralente	LIL	20.9000
1297	Insulin Zinc Suspension Prolonged, Human Semi-Synthetic 1000U/10mL Inj Susp otc 10mL Pk	00644358 Novolin-Ultralente	NOO	22.4000

68:20:16 Anti-Diabetic Agents Insulins (Pre-Mixed)

1298	Insulin (30% Neutral & 70% Isophane) Human Semi-Synthetic 100U/mL Inj Susp otc 3x2.5CPk	00983780 Mixtard Human	HOR	22.6000
1299	Insulin (30% Neutral & 70% Isophane) Human Semi-Synthetic 1000U/10mL Inj Susp otc 10mL Pk	00632694 Mixtard 30/70 Human	HOR	22.6000
1300	Insulin (30% Neutral & 70% Isophane) Pork 1000U/10mL Inj Susp otc 10mL Pk	00552259 Mixtard	HOR	24.7000
1301	Insulin (50% Neutral & 50% Isophane) Human Semi-Synthetic 1000U/10mL Inj Susp otc 10mL Pk	00632678 Mixtard 50/50	HOR	22.6000
1302	Insulin (50% Neutral & 50% Isophane) Pork 1000U/10mL Inj Susp otc 10mL Pk	00614416 Initard	HOR	24.7000
1303	Insulin (Sulfated) Beef 1000U/10mL Inj Susp otc 10mL Pk	00648094 Sulfated Insulin	NOO	82.3000
1304	Insulin 15% Neutral & 85% Isophane Human Semi-Synthetic 1000U/10mL Inj Susp otc 10mL Pk	+00773654 Mixtard 15/85	HOR	23.2000
1305	Insulin Human Biosynthetic 30% & Isophane 70% 1000U/10mL Inj Susp otc 10mL Pk	+00795879 Humulin 30/70	LIL	20.9000

Item 68:00 Hormones and Substitutes

68:20:16 Anti-Diabetic Agents Insulins (Pre-Mixed)

1306	Insulin Injection (30%) & Insulin Isophane (70%) Human Semi-Synthetic 150U/1.5mL Inj Susp otc 5x1.5 Pk	00981052	Novolin 30/70 Penfill	N00	22.4000
1307	Insulin Injection (30%) & Insulin Isophane (70%) Human Semi-Synthetic 1000U/10mL Inj Susp otc 10mL Pk	00650935	Novolin 30/70	N00	22.4000

68:24:00 Parathyroid Agents

1308	Calcitonin Salmon 400IU/2mL Inj Sol-2mL Pk	00723428	Calcimar	ROR	40.8500
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68:28:00 Pituitary Agents

1309	Cosyntropin Zinc Hydroxide 1mg/mL Inj Susp-1mL Pk	00253952	Synacthen Depot	CIB	20.5800
1310	Desmopressin Acetate 0.1mg/mL Nas Sol-2.5mL Pk	00402516	DDAVP	RIC	46.0000
1311	Desmopressin Acetate 10mcg/met dose Nas Sp- 2.5mL Pk	00836362	DDAVP	FEI	48.0000

68:32:00 Progestogens and Oral Contraceptives

1312	Ethinyl Estradiol & Ethynodiol Diacetate 0.03mg & 2mg Tab-21 Pk	00469327	Demulen 30	SEA	10.8600
1313	Ethinyl Estradiol & Ethynodiol Diacetate 0.03mg & 2mg Tab-28 Pk	00471526	Demulen 30	SEA	11.6200
1314	Ethinyl Estradiol & Ethynodiol Diacetate 0.05mg & 1mg Tab-21 Pk	00028630	Demulen 50	SEA	12.1450
1315	Ethinyl Estradiol & Ethynodiol Diacetate 0.05mg & 1mg Tab-28 Pk	00343536	Demulen 50	SEA	12.9900
1316	Ethinyl Estradiol & Levonorgestrel 0.03mg & 0.15mg Tab-21 Pk	00782432	Min-Ovral	WYE	10.8500
1317	Ethinyl Estradiol & Levonorgestrel 0.03mg & 0.15mg Tab-28 Pk	00782440	Min-Ovral	WYE	10.8500
1318	Ethinyl Estradiol & Levonorgestrel 3 Phase Tab-21 Pk	00707600 00782416	Triquilar 21 Triphasil	BER WYE	10.3500 10.9000
1319	Ethinyl Estradiol & Levonorgestrel 3 Phase Tab-28 Pk	00707503 00782424	Triquilar 28 Triphasil	BER WYE	10.3500 10.9000

Item 68:00 Hormones and Substitutes

68:32:00 Progestogens and Oral Contraceptives

1320	Ethinyl Estradiol & Norethindrone 0.035mg & 0.5mg + 0.035mg & 1mg Tab-21 Pk	00538590 Ortho 10/11	ORT	10.1825
1321	Ethinyl Estradiol & Norethindrone 0.035mg & 0.5mg + 0.035mg & 1mg Tab-28 Pk	00538582 Ortho 10/11	ORT	10.4200
1322	Ethinyl Estradiol & Norethindrone 0.035mg & 0.5mg Tab-21 Pk	00317047 Ortho 0.5/35 00373265 Brevicon	ORT SYN	10.1825 9.6700
1323	Ethinyl Estradiol & Norethindrone 0.035mg & 0.5mg Tab-28 Pk	00340731 Ortho 0.5/35 00373273 Brevicon	ORT SYN	10.4200 9.6700
1324	Ethinyl Estradiol & Norethindrone 0.035mg & 1mg Tab-21 Pk	00372846 Ortho 1/35 00531006 Brevicon 1/35	ORT SYN	9.9753 9.6700
1325	Ethinyl Estradiol & Norethindrone 0.035mg & 1mg Tab-28 Pk	00372838 Ortho 1/35 00531014 Brevicon 1/35	ORT SYN	10.4200 9.6700
1326	Ethinyl Estradiol & Norethindrone 3 Phase Tab-21 Pk	00602957 Ortho 7/7/7 00620947 Synphasic	ORT SYN	9.6215 9.6700
1327	Ethinyl Estradiol & Norethindrone 3 Phase Tab-28 Pk	00602965 Ortho 7/7/7 00695734 Synphasic	ORT SYN	10.0780 9.6700
1328	Ethinyl Estradiol & Norethindrone Acetate 0.02mg & 1mg Tab-21 Pk	00315966 Minestrin 1/20	PDA	11.2100
1329	Ethinyl Estradiol & Norethindrone Acetate 0.02mg & 1mg Tab-28 Pk	00343838 Minestrin 1/20	PDA	11.2100
1330	Ethinyl Estradiol & Norethindrone Acetate 0.03mg & 1.5mg Tab-21 Pk	00297143 Loestrin 1.5/30	PDA	11.2100
1331	Ethinyl Estradiol & Norethindrone Acetate 0.03mg & 1.5mg Tab-28 Pk	00353027 Loestrin 1.5/30	PDA	11.2100
1332	Ethinyl Estradiol & Norethindrone Acetate 0.05mg & 1mg Tab-21 Pk	00024007 Norlestrin 1/50	PDA	11.2100
1333	Ethinyl Estradiol & Norgestrel 0.05mg & 0.25mg Tab-21 Pk	00034207 Ovral	WYE	11.2500
1334	Ethinyl Estradiol & Norgestrel 0.05mg & 0.25mg Tab-28 Pk	00340766 Ovral	WYE	11.2500
1335	Medroxyprogesterone Acetate 400mg/4mL Inj Susp-4mL Pk	00030856 Depo-Provera	UPJ	33.1500

Item 68:00 Hormones and Substitutes

68:32:00 Progestogens and Oral Contraceptives

1336	Medroxyprogesterone Acetate 5mg Tab	00030937 Provera	UPJ	.2395
1337	Medroxyprogesterone Acetate 10mg Tab	00729973 Provera	UPJ	.4835
1338	Medroxyprogesterone Acetate 100mg Tab	00030945 Provera	UPJ	1.1157
1339	Mestranol & Ethynodiol Diacetate 0.1mg & 0.5mg Tab-21 Pk	00028681 Ovulen 0.5	SEA	15.0360
1340	Mestranol & Norethindrone 0.05mg & 1mg Tab-21 Pk	00022608 Ortho-Novum 1/50 00030333 Norinyl 1 + 50	ORT SYN	9.9753 10.1500
1341	Mestranol & Norethindrone 0.05mg & 1mg Tab-28 Pk	00340758 Ortho-Novum 1/50 00340847 Norinyl 1 + 50	ORT SYN	10.4200 10.1500
1342	Mestranol & Norethindrone 0.08mg & 1mg Tab-21 Pk	00022659 Ortho-Novum 1/80 00030341 Norinyl 1 + 80	ORT SYN	11.2925 10.9600
1343	Mestranol & Norethindrone 0.08mg & 1mg Tab-28 Pk	00340855 Norinyl 1 + 80	SYN	10.9600
1344	Mestranol & Norethindrone 0.1mg & 0.5mg Tab-21 Pk	00022632 Ortho-Novum 0.5	ORT	11.2925
1345	Mestranol & Norethindrone 0.1mg & 2mg Tab-21 Pk	00022640 Ortho-Novum 2 #00030368 Norinyl 2	ORT SYN	11.2925 10.6800
1346	Mestranol & Norethindrone 0.1mg & 2mg Tab-28 Pk	#00340839 Norinyl 2	SYN	10.6800
1347	Norethindrone 0.35mg Tab-28 Pk	00037605 Micronor	ORT	11.3010
<u>68:36:00 Thyroids</u>				
1348	Levothyroxine (Sodium) 0.025mg Tab	00009644 Synthroid	FLI	.0480
1349	Levothyroxine (Sodium) 0.05mg Tab	00009652 Synthroid 00012289 Eltroxin	FLI GLA	.0230
1350	Levothyroxine (Sodium) 0.075mg Tab	00640441 Synthroid	FLI	.0520
1351	Levothyroxine (Sodium) 0.1 mg Tab	00009660 Synthroid 00012297 Eltroxin	FLI GLA	.0283
1352	Levothyroxine (Sodium) 0.112mg Tab	00786578 Synthroid	FLI	.0550

Item 68:00 Hormones and Substitutes

68:36:00 Thyroids

1353	Levothyroxine (Sodium) 0.125mg Tab	00640425 Synthroid	FLI	.0555
1354	Levothyroxine (Sodium) 0.15mg Tab	00212164 Synthroid 00295582 Eltroxin	FLI GLA	.0314
1355	Levothyroxine (Sodium) 0.175mg Tab	00786586 Synthroid	FLI	.0595
1356	Levothyroxine (Sodium) 0.2 mg Tab	00009687 Synthroid 00012300 Eltroxin	FLI GLA	.0332
1357	Levothyroxine (Sodium) 0.3 mg Tab	00009695 Synthroid 00012319 Eltroxin	FLI GLA	.0508
1358	Liothyronine (Sodium) 5mcg Tab	00027081 Cytomel	SKF	.0685
1359	Liothyronine (Sodium) 25mcg Tab	00027103 Cytomel	SKF	.0832
1360	Thyroid 30mg Tab	00023949 Thyroid 00483583 Proloid	PDA PDA	.0334
1361	Thyroid 60mg Tab	00023957 Thyroid 00483540 Proloid	PDA PDA	.0414
1362	Thyroid 125mg Tab	00023965 Thyroid 00483559 Proloid	PDA PDA	.0528

68:38:00 Anti-Thyroids

1363	Methimazole 5mg Tab	00015741 Tapazole	LIL	.1098
1364	Propylthiouracil 50mg Tab	00010200 Propyl-Thyracil	FRS	.1082
1365	Propylthiouracil 100mg Tab	00010219 Propyl-Thyracil	FRS	.1693

Item 76:00 Oxytocics

1366	Ergonovine Maleate 0.2mg Tab	00015709 Ergotrate	LIL	.2474
1367	Oxytocin 5IU/mL Inj Sol-1mL Pk	00282316 Syntocinon- 5	SAN	.6820
1368	Oxytocin 10IU/mL Inj Sol-1mL Pk	00035998 Syntocinon-10	SAN	.8350

Item 84:00 Skin and Mucous Membrane Preparations

84:04:04 Anti-Infectives Antibiotics

1369	Bacitracin 500U/g Oint	00012351 Bacitracin 00031046 Baciguent	GLA UPJ	.0919
1370	Erythromycin 1.5% Lot	00512591 Staticin	WSD	.1432
1371	Erythromycin & Ethyl Alcohol 2% & 44% Top Sol	00824127 Sans-Acne	ALC	.1325
1372	Fusidic Acid 2% Cr	00586668 Fucidin	LEO	.5400
1373	Mupirocin 2% Oint	00648051 Bactroban	BEE	.4773
1374	Neomycin Sulfate 0.5% Oint	00031070 Myciguent	UPJ	.1720
1375	Sodium Fusidate 2% Oint	00586676 Fucidin	LEO	.5400

84:04:06 Anti-Infectives Antivirals

1376	Acyclovir 5% Oint- 4g Pk	00569771 Zovirax	BWE	12.7500
1377	Acyclovir 5% Oint-15g Pk	00983950 Zovirax	BWE	34.0000
1378	Idoxuridine 0.1% Top Sol	00001317 Herplex-D	ALL	1.3899

84:04:08 Anti-Infectives Fungicides

1379	Ciclopirox Olamine 1% Cr	00593362 Loprox	HOE	.4633
1380	Clotrimazole 10mg/g Cr	00513903 Canesten 00516805 Myclo +00812382 Clotrimaderm	MIT BOE TAR	.1300
1381	Clotrimazole 500mg & 1% Tab & Cr	00759457 Canesten 1-Combi Pak	MIT	13.8800
1382	Clotrimazole 10mg/mL Top Sol	00513911 Canesten 00516821 Myclo	MIT BOE	.3441
1383	Clotrimazole 10mg/g Vag Cr-App	00513938 Canesten 00516813 Myclo +00812366 Clotrimaderm Vaginal Cream	MIT BOE TAR	.2100
1384	Clotrimazole 20mg/g Vag Cr-App	00576492 Canesten 3 +00812374 Clotrimaderm Vaginal Cream	MIT TAR	.4200

Item 84:00 Skin and Mucous Membrane Preparations

84:04:08 Anti-Infectives Fungicides

1385	Clotrimazole 100mg Vag Tab	00513946 Canesten 00516848 Myclo	MIT BOE	2.0037
1386	Clotrimazole 200mg Vag Tab	00567388 Canesten 3	MIT	4.6967
1387	Clotrimazole 500mg Vag Tab	00629243 Canesten 1	MIT	13.8800
1388	Econazole Nitrate 1% Cr	00561002 Ecostatin	SQU	.4000
1389	Econazole Nitrate 150mg Vag Sup	00452114 Ecostatin	SQU	5.3666
1390	Haloprogin 1% Cr	00291048 Halotex	WSD	.2150
1391	Haloprogin 1% Top Sol	00291021 Halotex	WSD	.2307
1392	Ketoconazole 2% Cr	00703974 Nizoral	JAN	.4290
1393	Miconazole Nitrate 2%Cr-15g & 400mg Vag Sup-3 Pk	00685917 Monistat 3 Dual Pak	ORT	16.1900
1394	Miconazole Nitrate 2% Cr	00326968 Micatin 00497797 Monistat Derm	MCN ORT	.5083
1395	Miconazole Nitrate 100mg Tamp	00504203 Monistat 5	ORT	3.2380
1396	Miconazole Nitrate 2% Vag Cr	00980625 Monistat	ORT	.2704
1397	Miconazole Nitrate 2% Vag Cr-App	00321036 Monistat 7	ORT	.3519
1398	Miconazole Nitrate 100mg Vag Sup-7 Pk	00387193 Monistat 7	ORT	16.5400
1399	Miconazole Nitrate 400mg Vag Sup	00530999 Monistat 3	ORT	5.3967
1400	Nystatin 100000U/g Cr	00029092 Mycostatin 00288217 Nadostine 00449792 Nilstat 00716871 Nyaderm	SQU NDA LED TAR	.0782
1401	Nystatin 100000U/g Oint	00029556 Mycostatin 00288195 Nadostine 00449806 Nilstat 00716898 Nyaderm	SQU NDA LED TAR	.0887

Item 84:00 Skin and Mucous Membrane Preparations

84:04:08 Anti-Infectives Fungicides

1402	Nystatin 25000U/g Vag Cr	00288209 Nadostine 00295973 Mycostatin 00716901 Nyaderm	NDA SQU TAR	.0475
1403	Nystatin 100000U/g Vag Cr	00278793 Nilstat	LED	.2503
1404	Nystatin 100000U Vag Tab	00015067 Nilstat 00029491 Mycostatin 00270091 Nadostine	LED SQU NDA	.1470
1405	Tioconazole 1% Cr	00657395 Trosyd	PFI	.4500

84:04:12 Anti-Infectives Parasiticides

1406	Crotamiton 10% Cr	00623377 Eurax	CGS	.2672
1407	Lindane (Gamma Benzene Hexachloride) 1% Cr	00026204 Kwellada	RCA	.0653
1408	Lindane (Gamma Benzene Hexachloride) 1% Lot	00026212 Kwellada	RCA	.0480
1409	Lindane (Gamma Benzene Hexachloride) 1% Shampoo	00026220 Kwellada 00351105 GBH	RCA ROR	.0480
1410	Permethrin 1% Cr Rinse	00771368 Nix	BWE	.0940
1411	Pyrethrins Piperonyl Butoxide & Petroleum Distillate 0.3% & 3% & 1.2% Top Sol otc 100mL Pk	00575372 R & C Shampoo	RCA	12.2500

84:04:16 Anti-Infectives Other Anti-Infectives

1412	Chlorhexidine Gluconate 4% Top Sol otc 110mL Pk	00245097 Hibitane	AYE	4.7000
1413	Hexachlorophene 3% Top Emuls	00205389 PhisoHex	WIN	.0428
1414	* Iodochlorhydroxyquin 3% Cr	00005142 Vioform	CIB	.1887
1415	Iodochlorhydroxyquin 3% Oint	00005797 Vioform	CIB	.1887
1416	Metronidazole 10% Vag Cr-App	00024929 Flagyl	RPP	.1978

Item 84:00 Skin and Mucous Membrane Preparations

84:04:16 Anti-Infectives Other Anti-Infectives

1417	Metronidazole 500mg Vag Tab-App	00025887 Flagyl	RPP	.4370
1418	Metronidazole & Nystatin 500mg & 100000U/g Vag Cr-App	00338338 Flagystatin	RPP	.3893
1419	Metronidazole & Nystatin 500mg & 100000U Vag Sup	00439134 Flagystatin	RPP	2.1410
1420	Metronidazole & Nystatin 500mg & 100000U Vag Tab-App	00250724 Flagystatin	RPP	2.1410
1421	N'benzoylsulfanilamide & Sulfathiazole & Sulfacetamide & Urea Vag Cr-App	00153605 Sultrin	ORT	.2351
1422	* Povidone - Iodine 10% Top Sol	00158348 Betadine 00172944 Proviiodine	PFR ROG	.0065
1423	Povidone - Iodine 10% Vag Gel	00026034 Betadine 00026611 Proviiodine	PFR ROG	.0670
1424	Povidone - Iodine 10% Vag Sol	00026093 Betadine 00252824 Proviiodine	PFR ROG	.0236
1425	Povidone - Iodine 200mg Vag Sup	00026050 Betadine	PFR	.5421
1426	Silver Sulfadiazine 1% Cr	00323098 Flamazine	SNE	.2290
1427	Sulfanilamide & Allantoin & Aminacrine HCl & Dienestrol Vag Cr	00134198 AVC/Dienestrol	MER	.2888
1428	Sulfanilamide & Aminacrine HCl & Allantoin Vag Cr	00134120 AVC	MER	.2426
1429	Sulfanilamide & Aminacrine HCl & Allantoin Vag Sup	00134139 AVC	MER	1.7347
1430	Triclosan 0.5% Top Sol	00632317 Tersaseptic	TCD	.0170
<u>84:06:00 Anti-Inflammatory Agents</u>				
1431	Amcinonide 0.1% Cr	00443824 Cyclocort	LED	.4167
1432	Amcinonide 0.1% Lot	00571016 Cyclocort	LED	.3182
1433	Amcinonide 0.1% Oint	00559237 Cyclocort	LED	.3833

Item 84:00 Skin, and Mucous Membrane Preparations

84:06:00 Anti-Inflammatory Agents

1434	Beclomethasone Dipropionate 0.025% Cr	00002712 Propaderm	GLA	.3884
1435	Beclomethasone Dipropionate 0.025% Lot	00270466 Propaderm	GLA	.3511
1436	Beclomethasone Dipropionate 0.025% Oint	00003697 Propaderm	GLA	.3884
1437	Betamethasone Benzoate 0.025% Gel	00335347 Beben	PDA	.3657
1438	Betamethasone Dipropionate 0.05% Cr	00323071 Diprosone	SCH	.4614
1439	Betamethasone Dipropionate 0.05% Lot	00417246 Diprosone	SCH	.3476
1440	Betamethasone Dipropionate 0.05% Oint	00344923 Diprosone	SCH	.4614
1441	Betamethasone Dipropionate in a base containing propylene glycol 0.05% Oint	00629367 Diprolene	SCH	.6314
1442	Betamethasone Dipropionate in propylene glycol base 0.05% Cr	00688622 Diprolene Glycol	SCH	.6314
1443	Betamethasone Valerate 0.05% Cr	00011916 Betnovate-1/2 00027898 Celestoderm-V/2 00535427 Ectosone Mild 00716618 Betaderm	GLA SCH TCH TAR	.0155
1444	Betamethasone Valerate 0.1% Cr	00011924 Betnovate 00027901 Celestoderm-V 00535435 Ectosone Regular 00716626 Betaderm	GLA SCH TCH TAR	.0231
1445	Betamethasone Valerate 0.05% Lot	00011932 Betnovate-1/2 00653209 Ectosone Mild	GLA TCH	.2026
1446	Betamethasone Valerate 0.1% Lot	00011940 Betnovate 00750050 Ectosone Regular	GLA TCH	.2489
1447	Betamethasone Valerate 0.05% Oint	00012378 Betnovate-1/2 00028355 Celestoderm-V/2 00716642 Betaderm	GLA SCH TAR	.0155
1448	Betamethasone Valerate 0.1% Oint	00012386 Betnovate 00028363 Celestoderm-V 00716650 Betaderm	GLA SCH TAR	.0244

Item 84:00 Skin and Mucous Membrane Preparations

84:06:00 Anti-Inflammatory Agents

1449	Betamethasone Valerate 0.1% Scalp Lot	00027944 Valisone 00653217 Ectosone 00716634 Betaderm 00726486 Betamethasone Valerate	SCH TCH TAR PHO	.0865
1450	Bufexamac 5% Cr	00441147 Norfemac 00695874 Parfenac	NRD LED	.2318
1451	Bufexamac 5% Oint	00441155 Norfemac 00695882 Parfenac	NRD LED	.2318
1452	Clobetasol Propionate 0.05% Cr	00359718 Dermovate	GLA	.6262
1453	Clobetasol Propionate 0.05% Oint	00359726 Dermovate	GLA	.6262
1454	Clobetasol Propionate 0.05% Scalp Lot	00479012 Dermovate	GLA	.5260
1455	Clobetasone Butyrate 0.05% Cr	00456543 Eumovate	GLA	.3673
1456	Clobetasone Butyrate 0.05% Oint	00456551 Eumovate	GLA	.3673
1457	Desonide 0.05% Cr	00521248 Tridesilon	MIT	.4047
1458	Desonide 0.05% Oint	00521264 Tridesilon	MIT	.3808
1459	Desoximetasone 0.05% Emol Cr	00486450 Topicort Mild	HOE	.3450
1460	Desoximetasone 0.25% Emol Cr	00420271 Topicort	HOE	.5900
1461	Diflorasone Diacetate 0.05% Cr	00481807 Florone	UPJ	.2900
1462	Diflorasone Diacetate 0.05% Oint	00481793 Florone	UPJ	.2900
1463	Diflucortolone Valerate 0.1% Cr	00587826 Nerisone	STI	.3533
1464	Diflucortolone Valerate 0.1% Oily Cr	00587818 Nerisone	STI	.3533
1465	Diflucortolone Valerate 0.1% Oint	00587834 Nerisone	STI	.3533
1466	Flumethasone Pivalate 0.03% Cr	00005134 Locacorten	CIB	.5960

Item 84:00 Skin and Mucous Membrane Preparations

84:06:00 Anti-Inflammatory Agents

1467	Fluocinolone Acetonide 0.01% Cr	00030414 Synalar Mild 00716782 Fluoderm	SYN TAR	.1191
1468	Fluocinolone Acetonide 0.025% Cr	00030422 Synalar Regular 00716790 Fluoderm	SYN TAR	.1400
1469	Fluocinolone Acetonide 0.01% Emol Cr	00424927 Synamol Mild	SYN	.2395
1470	Fluocinolone Acetonide 0.025% Emol Cr	00424935 Synamol Regular	SYN	.3943
1471	Fluocinolone Acetonide 0.01% Oint	00030392 Synalar Mild 00716804 Fluoderm	SYN TAR	.2395 .1191
1472	Fluocinolone Acetonide 0.025% Oint	00030406 Synalar Regular 00716812 Fluoderm	SYN TAR	.3943 .1400
1473	Fluocinolone Acetonide 0.01% Top Sol	00030260 Synalar Solution	SYN	.3640
1474	Fluocinonide 0.01% Cr	00274453 Lidex Mild	SYN	.3100
1475	Fluocinonide 0.05% Cr	00036099 Lidex 00716863 Lyderm	SYN TAR	.3075
1476	Fluocinonide 0.05% Emol Cr	00424943 Lidemol 00598933 Tiamol	SYN TIC	.2271
1477	Fluocinonide 0.05% Gel	00281913 Topsyn	SYN	.4553
1478	Fluocinonide 0.01% Oint	00274445 Lidex Mild	SYN	.3100
1479	Fluocinonide 0.05% Oint	00274437 Lidex	SYN	.4553
1480	Fluocinonide & Procinonide & Ciprocinonide Emol Cr	00781371 Trisyn	MNP	.3124
1481	Flurandrenolide 0.0125% Cr	00015318 Drenison-1/4	LIL	.2322
1482	Flurandrenolide 0.05% Cr	00015326 Drenison	LIL	.4668
1483	Flurandrenolide 0.0125% Oint	00016004 Drenison-1/4	LIL	.2322
1484	Flurandrenolide 0.05% Oint	00016012 Drenison	LIL	.4668

Item 84:00 Skin and Mucous Membrane Preparations

84:06:00 Anti-Inflammatory Agents

1485	Halcinonide 0.025% Cr	00404179 Halog Mild	SQU	.2333
1486	Halcinonide 0.1% Cr	00326941 Halog	SQU	.4583
1487	Halcinonide 0.1% Oint	00403075 Halog	SQU	.3741
1488	Halcinonide 0.1% Sol	00404187 Halog	SQU	.3741
1489	Hydrocortisone 0.5% Cr	00228079 Hydrocortisone #00303887 Unicort 00513288 Cortate 00551953 Hydrocortisone	SDR GLA SCH DTC	.0144
1490	Hydrocortisone 1% Cr	00192597 Emo-Cort 00228087 Hydrocortisone #00303895 Unicort 00502200 Cortate 00551945 Hydrocortisone	TCD SDR GLA SCH DTC	.0197
1491	Hydrocortisone 2.5% Cr	00595799 Emo-Cort	TCD	.2078
1492	Hydrocortisone 0.5% Lot	00192589 Emo-Cort	TCD	.1075
1493	Hydrocortisone 1% Lot	00192600 Emo-Cort	TCD	.1367
1494	Hydrocortisone 2.5% Lot	00595802 Emo-Cort	TCD	.1858
1495	Hydrocortisone 0.5% Oint	00093637 Hydrocortisone 00513261 Cortate 00716685 Cortoderm	DTC SCH TAR	.0162
1496	Hydrocortisone 1% Oint	00093645 Hydrocortisone 00502197 Cortate 00716693 Cortoderm	DTC SCH TAR	.0187
1497	Hydrocortisone & Urea 1% & 10% Cr	00364134 Calmurid-HC	PHD	.3135
1498	Hydrocortisone Acetate 0.5% Cr	00716820 Hyderm	TAR	.0833
1499	Hydrocortisone Acetate 1% Cr	00477699 Corticreme 00716839 Hyderm	ROG TAR	.0900
1500	Hydrocortisone Acetate & Urea 1% & 10% Cr	00503134 Uremol-HC	TCD	.1850

Item 84:00 Skin and Mucous Membrane Preparations

84:06:00 Anti-Inflammatory Agents

1501	Hydrocortisone Acetate & Urea 1% & 10% Lot	00560022 Uremol-HC	TCD	.0860
1502	Hydrocortisone Valerate 0.2% Cr	00423165 Westcort	WSD	.1669
1503	Hydrocortisone Valerate 0.2% Oint	00590800 Westcort	WSD	.1615
1504	Methylprednisolone 0.25% Cr	00031062 Medrol	UPJ	.1960
1505	Triamcinolone Acetonide 0.025% Cr	00282448 Aristocort D 00716952 Triaderm	LED TAR	.0770
1506	Triamcinolone Acetonide 0.1% Cr	00014621 Aristocort R 00029114 Kenalog 00716960 Triaderm	LED SQU TAR	.1276
1507	Triamcinolone Acetonide 0.025% Oint	00282456 Aristocort D	LED	.0770
1508	Triamcinolone Acetonide 0.1% Oint	00029572 Kenalog 00127914 Aristocort R	SQU LED	.1276
1509	Triamcinolone Acetonide 0.1% in Orabase Oral Top Oint	00029505 Kenalog-Orabase	SQU	1.1334

84:08:00 Antipruritics and Topical Anesthetics

1510	Cinchocaine HCl 1% Oint	00623385 Nupercainal	CGS	.0970
1511	Pramoxine HCl 1% Cr	00000116 Tronothane	ABB	.2964

84:12:00 Astringents

1512	Aluminum Acetate & Benzethonium Chloride 0.35% & 0.023% Pd	00579947 Buro-Sol	TCD	.6150
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84:24:00 Emollients, Demulcents and Protectants

1513	* Dimethylpolysiloxane 20% Cr	00253057 Barriere	GLA	.0369
1514	Ethylhexyl-p-Methoxycinnamate & Oxybenzone 7.5% & 5% Moist Lot	00726788 Ti-UVA-B 22	TIC	.0462
1515	Ethylhexyl-p-Methoxycinnamate Oxybenzone 2Eth-2Cyano-3 3Diph.&2Ethylhexylsal. 7.5% & 7.5% & 6% & 5% Lot	+01907689 TI-Screen SPF30	WBP	.0600

Item 84:00 Skin and Mucous Membrane Preparations

84:24:00 Emollients, Demulcents and Protectants

1516	Octyl Dimethyl PABA & Avobenzene 7% & 3% Lot	+00781215 Photoplex	HER	.0729
1517	Octyl Dimethyl PABA & Oxybenzone 8% & 3.3% Lot	00539856 Presun 15 Creamy	WSD	.0434
1518	Octyl Dimethyl PABA & Oxybenzone 8% & 5% Lot (21 SPF)	00645826 PABA Tan	AYE	.0369
1519	Octyl Methoxycinnamate, Oxybenzone & Octyl Salicylate 7% & 6% & 5% Cr	00723932 Presun 29	WSD	.0524
1520	Pedimate & Oxybenzone 8% & 3.5% Cr	00626708 Ultrastop	CDM	.0540
1521	* Zinc Oxide 15% Oint	00093661 Zinc Oxide 00178969 Zinc Oxide	DTC SDR	.0116

84:28:00 Keratolytic Agents

1522	Anthralin 0.1% Cr	00537594 Anthranol	STI	.2180
1523	Anthralin 0.2% Cr	00537608 Anthranol	STI	.2300
1524	Anthralin 0.4% Cr	00537616 Anthranol	STI	.2404
1525	Anthralin 1% Oint	00566756 Anthraforte 1	STI	.2968
1526	Anthralin 2% Oint	00566748 Anthraforte 2	STI	.3132
1527	Anthralin 3% Oint	00617164 Anthraforte 3	STI	.3272
1528	Benzoyl Peroxide 5% Cl Lot	00503835 Benoxyl Wash	STI	.0496
1529	Benzoyl Peroxide 10% Cl Lot	00502669 Benoxyl Wash 00542040 Desquam-X Wash	STI WSD	.0465
1530	Benzoyl Peroxide 5% Lot	00236063 Benoxyl 00374326 Oxyderm	STI ICN	.1138
1531	Benzoyl Peroxide 10% Lot	00370568 Benoxyl 00432938 Oxyderm	STI ICN	.1377
1532	Benzoyl Peroxide 20% Lot	00187585 Benoxyl 00374318 Oxyderm	STI ICN	.1778

Item 84:00 Skin and Mucous Membrane Preparations

84:28:00 Keratolytic Agents

1533	Benzoyl Peroxide in Acetone-containing Gel 5% Gel	00372692 Dermoxyl 00406821 AcetOxyl	ICN STI	.0959
1534	Benzoyl Peroxide in Acetone-containing Gel 10% Gel	00372706 Dermoxyl 00406848 AcetOxyl	ICN STI	.1335
1535	Benzoyl Peroxide in Acetone-containing Gel 20% Gel	00399116 Dermoxyl 00406856 AcetOxyl	ICN STI	.1740
1536	Benzoyl Peroxide in Alcohol-containing Gel 5% Gel	00263702 Panoxyl 00426261 5-Benzagel	STI ROR	.0963
1537	Benzoyl Peroxide in Alcohol-containing Gel 10% Gel	00263699 Panoxyl 00426288 10-Benzagel	STI ROR	.1200
1538	Benzoyl Peroxide in Alcohol-containing Gel 15% Gel	00403571 Panoxyl	STI	.1616
1539	Benzoyl Peroxide in Alcohol-containing Gel 20% Gel	00373036 Panoxyl	STI	.1740
1540	Benzoyl Peroxide in Water-based Gel 5% Gel	00307564 Desquam-X5 00512613 H2Oxyl 00621048 Benzac W 5	WSD STI ALC	.0712
1541	Benzoyl Peroxide in Water-based Gel 10% Gel	00307572 Desquam-X10 00512621 H2Oxyl 00621056 Benzac W10	WSD STI ALC	.0918
1542	Benzoyl Peroxide in Water-based Gel 20% Gel	00512648 H2Oxyl	STI	.1740
1543	Salicylic Acid 6% Gel	00307580 Keralyt	WSD	.0875
1544	Salicylic Acid 4% Shampoo	00666106 Sebcur	DPT	.0308
1545	Salicylic Acid 20% Top Sol	00690333 Soluver	DPT	.3333
1546	Tretinoin 0.01% Cr.	00657204 Stieva-A	STI	.3560
1547	Tretinoin 0.025% Cr	00578576 Stieva-A	STI	.3560

Item 84:00 Skin and Mucous Membrane Preparations

84:28:00 Keratolytic Agents

1548	Tretinoin 0.05% Cr	00493333 Vitamin A Acid 00518182 Stieva-A	ROR STI	.3406
1549	Tretinoin 0.01% Gel	00587958 Stieva-A 00590797 Vitamin A Acid	STI ROR	.3560
1550	Tretinoin 0.025% Gel	00587966 Stieva-A	STI	.3560
1551	Tretinoin 0.05% Gel	00419001 Vitamin A Acid	ROR	.3406
1552	Tretinoin 0.025% Sol	00578568 Stieva-A	STI	.1780
1553	Tretinoin 0.05% Top Sol	00518174 Stieva-A	STI	.1780

84:32:00 Keratoplastic Agents

1554	Coal Tar Extract 2% Gel otc 85g Pk	00373222 Estar	WSD	10.1000
1555	Coal Tar, Sulfur & Salicylic Acid 0.5% & 2% & 2% Top Sol otc 100mL Pk	00232890 Sebutone	WSD	5.3500
1556	Coaltar & Salicylic Acid 10% & 4% Shampoo otc 120mL Pk	00666114 Sebcur/T	DPT	7.7000
1557	Colloidal Crude Coal Tar 1% Shampoo otc 240mL Pk	00426423 Zetar	ROR	11.9000
1558	Crude Coal Tar 30% Emuls otc 125mL Pk	00426415 Zetar	ROR	11.4000
1559	Crude Coal Tar 2.5% Top Sol otc 230mL Pk	00208132 Balnetar	WSD	11.5000
1560	Tar 1% Shampoo otc 150mL Pk	00249866 Polytar	STI	8.7000
1561	Tar Distillate 2% Emuls otc 250mL Pk	00579955 Doak-Oil	TCD	12.0000
1562	Tar Distillate 10% Emuls otc 250mL Pk	00579971 Doak-Oil Forte	TCD	15.9500
1563	Tar Distillate 3% Shampoo otc 150mL Pk	00632309 Tersa-Tar	TCD	6.4000

84:36:00 Miscellaneous Skin and Mucous Membrane Agents

1564	Colloidal Oatmeal Pd-252g Pk	00652350 Aveeno	SCJ	5.6700
1565	Colloidal Oatmeal (Oilated) Pd-126g Pk	00652342 Aveeno (Oilated)	SCJ	5.6700

Item 84:00 Skin and Mucous Membrane Preparations

84:36:00 Miscellaneous Skin and Mucous Membrane Agents

1566	Etretinate 10mg Cap	00616400 Tegison	HLR	1.5033
1567	Etretinate 25mg Cap	00616419 Tegison	HLR	2.6316
1568	Fibrinolysin & Desoxyribonuclease 1U & 666U/g Oint	00024082 Elase	PDA	1.2236
1569	Fluorouracil 5% Cr	00330582 Efudex	HLR	.4160
1570	Hydrocortisone 10mg Sup	00407836 Cortiment	NRD	.9025
1571	Hydrocortisone 40mg Sup	00406708 Cortiment	NRD	1.2380
1572	Hydrocortisone Acetate 10% Rect Aero	00579335 Cortifoam	RCA	3.2030
1573	Isotretinoin 10mg Cap	00582344 Accutane	HLR	1.4233
1574	Isotretinoin 40mg Cap	00582352 Accutane	HLR	2.9083
1575	Methoxsalen 10mg Cap	00007269 Oxsoralen	ICN	.5319
1576	Methoxsalen 10mg SG Cap	00646237 UltraMOP	CDM	.4438
1577	Selenium Sulfide 2.5% Lot	00243000 Selsun	ABB	.0325
1578	Sutilains 82000U/g Oint	00265381 Travase	FLI	2.5423
1579	Zinc Pyrithione 2% Shampoo otc 125mL Pk	00507415 Dan-Gard	STI	8.7000
1580	* Zinc Sulfate 0.5% Oint	00504246 Anusol 00621447 Anuzinc	PDA TCH	.0754
1581	* Zinc Sulfate 10mg Sup	00621439 Anuzinc	TCH	.1630

Item 86:00 Spasmolytics

1582	Aminophylline 225mg LA Tab	00491179 Phyllocontin	PFR	.1865
1583	Aminophylline 350mg LA Tab	00593230 Phyllocontin-350	PFR	.2379
1584	Aminophylline 21mg/mL O/L	00379603 Palaron	FIS	.0447
1585	Aminophylline 500mg Sup	#00451673 Corophyllin	BEE	.5875
1586	Aminophylline 100mg Tab	00014923 Aminophylline 00092940 Aminophylline	LED DTC	.0273
1587	Aminophylline 200mg Tab	00014931 Aminophylline	LED	.0767
1588	Oxtriphylline 400mg LA Tab	00503436 Choledyl SA	PDA	.2169
1589	Oxtriphylline 600mg LA Tab	00536709 Choledyl SA	PDA	.2575
1590	Oxtriphylline 10mg/mL O/L	00405310 Rouphylline 00476390 Choledyl	ROG PDA	.0110
1591	Oxtriphylline 20mg/mL O/L	00476366 Choledyl	PDA	.0279
1592	Oxtriphylline 100mg Tab	00441724 Apo-Oxtriphylline 00458708 Novo-Triphyl 00476404 Choledyl	APX NOP PDA	.0224
1593	Oxtriphylline 200mg Tab	00346071 Rouphylline 00441732 Apo-Oxtriphylline 00458716 Novo-Triphyl 00476412 Choledyl	ROG APX NOP PDA	.0245
1594	Oxtriphylline 300mg Tab	00483591 Choledyl 00511692 Apo-Oxtriphylline 00565377 Novo-Triphyl	PDA APX NOP	.0335
1595	Theophylline Anhydrous 50mg LA Cap	00551422 Somophyllin-12 00778893 Slo-Bid	FIS ROR	.1639 .1650
1596	Theophylline Anhydrous 75mg LA Cap	00692751 Somophyllin-12	FIS	.1811
1597	Theophylline Anhydrous 100mg LA Cap	00551430 Somophyllin-12 00600024 Slo-Bid	FIS ROR	.1828 .1850
1598	Theophylline Anhydrous 200mg LA Cap	00600032 Slo-Bid 00609013 Somophyllin-12	ROR FIS	.2145 .2115

Item 86:00 Spasmolytics

1599	Theophylline Anhydrous 250mg LA Cap	00551414 Somophyllin-12	FIS	.2342
1600	Theophylline Anhydrous 300mg LA Cap	00600040 Slo-Bid 00609021 Somophyllin-12	ROR FIS	.2575 .2543
1601	Theophylline Anhydrous 350mg LA Cap	00692778 Somophyllin-12	FIS	.2829
1602	Theophylline Anhydrous 100mg LA Tab	00460982 Theo-Dur	AST	.1910
1603	Theophylline Anhydrous 200mg LA Tab	00460990 Theo-Dur 00791652 Theolair-SR	AST RIK	.2124 .1325
1604	Theophylline Anhydrous 250mg LA Tab	00461695 Theolair-SR	RIK	.1980
1605	Theophylline Anhydrous 300mg LA Tab	00461008 Theo-Dur 00545732 Theolair-SR 00556742 Quibron-T/SR	AST RIK BRI	.2572 .1545 .2405
1606	Theophylline Anhydrous 400mg LA Tab	00738875 Uniphyl	PFR	.4260
1607	Theophylline Anhydrous 450mg LA Tab	00722065 Theo-Dur	AST	.3230
1608	Theophylline Anhydrous 500mg LA Tab	00502014 Theolair-SR	RIK	.3500
1609	Theophylline Anhydrous 600mg LA Tab	00738883 Uniphyl	PFR	.5160
1610	Theophylline Anhydrous 50mg SR Cap	+00713406 Theo-Dur Sprinkle	AST	.1445
1611	Theophylline Anhydrous 75mg SR Cap	+00713414 Theo-Dur Sprinkle	AST	.1565
1612	Theophylline Anhydrous 125mg SR Cap	+00713422 Theo-Dur Sprinkle	AST	.1720
1613	Theophylline Anhydrous 200mg SR Cap	+00713430 Theo-Dur Sprinkle	AST	.2255
1614	Theophylline Anhydrous 5.3mg/mL O/L	00261203 Theophylline 00461709 Theolair Alcohol Free Oral Liquid 00532223 Theophylline 00575151 PMS-Theophylline #00704466 Elixophyllin	DES RIK TCH PMS BER	.0053
1615	Theophylline Anhydrous 10mg/mL O/L	#00547115 Quibron-T	BRI	.0362
1616	Theophylline Anhydrous 125mg Tab	00395218 Theolair	RIK	.2075

Item 86:00 Spasmolytics

1617	Theophylline Anhydrous 250mg Tab	00461687 Theolair	RIK	.3140
1618	Theophylline Calcium Aminoacetate 325mg Tab	00263761 Acet-Am	ORG	.2185

Item 88:00 Vitamins

88:04:00 Vitamin A

1619	Vitamin A 25000IU Cap	00021067 Vitamin A 00723460 Aquasol A	NOP ROR	.0473
1620	Vitamin A 50000IU Cap	00021075 Vitamin A 00723452 Aquasol A	NOP ROR	.0777

88:08:00 Vitamins B

1621	* Cyanocobalamin 1mg/mL Inj Sol otc 10mL Pk	00002909 Anacobin 00029165 Rubramin 00314277 Cyanocobalamin 00716707 Cyanocobalamin	GLA SQU NRD TAR	5.9000
1622	Folic Acid 5mg Tab	00014966 Folvite 00021466 Novo-Folacid 00094617 Folic Acid 00284149 Folic Acid-ICN 00426849 Apo-Folic 00498777 Folic Acid	LED NOP DTC ICN APX LEA	.0063
1623	Leucovorin Calcium 5mg Tab	00482900 Leucovorin Calcium	LED	5.1563
1624	Nicotinic Acid 50mg Tab dpp	00015768 Niacin 00268593 Niacin-ICN 00274496 Novo-Niacin	LIL ICN NOP	.0106
1625	Nicotinic Acid 100mg Tab dpp	00015776 Niacin 00268585 Niacin-ICN	LIL ICN	.0282

Item 88:00 Vitamins

1626	Pyridoxine HCl 25mg Tab dpp	00015865 Hexa-Betalin 00232475 Vitamin B6 00268607 Vitamin B6-ICN 00416185 Vitamin B6	LIL LEA ICN WAM	.0180
1627	Thiamine HCl 1000mg/10mL Inj Sol-10mL Pk dpp	00033421 Betaxin	WIN	13.2300
1628	Thiamine HCl 50mg Tab dpp	00268631 Vitamin B1-ICN 00610267 Vitamin B1	ICN LEA	.0200
1629	* Vitamins B & C Tab otc 100 Pk	00750646 Beminal	AYE	9.0500
<u>88:12:00 Vitamin C</u>				
1630	* Ascorbic Acid 100mg Tab otc 100 Pk	00021970 Novo-C 00094633 Ascorbic Acid 00466646 Apo-C	NOP DTC APX	1.6000
1631	Ascorbic Acid 250mg Tab otc 100 Pk	00021237 Novo-C 00036161 Vitamin C 00094641 Ascorbic Acid 00466638 Apo-C	NOP WAM DTC APX	2.6000
1632	* Ascorbic Acid 500mg Tab otc 100 Pk	00021997 Novo-C 00036188 Vitamin C 00094668 Ascorbic Acid 00466611 Apo-C	NOP WAM DTC APX	4.0000
1633	Ascorbic Acid 1000mg Tab otc 100 Pk	00256862 Vitamin C 00466603 Apo-C 00535907 Novo-C	WAM APX NOP	9.1000
<u>88:16:00 Vitamin D</u>				
1634	Alfacalcidol 0.25mcg Cap dpp	00474517 One-Alpha	LEO	.3931
1635	Alfacalcidol 0.2mcg/mL Oral Sol dpp	00759546 One-Alpha	LEO	.4495
1636	Alfacalcidol 1mcg Cap dpp	00474525 One-Alpha	LEO	1.1794
1637	Calcitriol 0.25mcg Cap dpp	00481823 Rocaltrol	HLR	.8515
1638	Calcitriol 0.5mcg Cap dpp	00481815 Rocaltrol	HLR	1.3540
1639	Dihydratachysterol 0.125mg Cap	00033057 Hytakerol	WIN	.8240

Item 88:00 Vitamins

1640	Ergocalciferol 10360IU/mL O/L	00033545 Drisdol	WIN	.4372
1641	Vitamin D 50000IU Cap	00002690 Radiostol 00009830 Ostoforte	GLA FRS	.1894
1642	Vitamin D 400IU/0.6mL O/L dpp	00630934 D-Vi-Sol	MJO	.1562
<u>88:24:00 Vitamin K</u>				
1643	Menadiol Sodium Diphosphate 5mg Tab dpp	00013374 Synkavite	HLR	.0660
<u>88:28:00 Multivitamins</u>				
1644	* Hexavitamins USP Tab otc 100 Pk	00269034 Hexavitamins 00701130 Apo-Hexa	NOP APX	4.1000
1645	* Vitamins A & D & C & B Complex O/L otc 500mL Pk	00156493 Pardec	PDA	12.4000
1646	* Vitamins A & D & C & B Complex Ped O/L otc 50mL Pk	00647578 Poly-Vi-Sol	MJO	16.8500

Item 92:00 Unclassified Therapeutic Agents

1647	Allopurinol 100mg Tab	00004588 Zylorprim 00364282 Novo-Purol 00402818 Apo-Allopurinol 00415731 Purinol 00449687 Alloprin	BWE NOP APX HOR ICN	.0178
1648	Allopurinol 200mg Tab	00415758 Purinol 00479799 Apo-Allopurinol 00506370 Zylorprim 00514209 Alloprin 00565342 Novo-Purol	HOR APX BWE ICN NOP	.0352
1649	Allopurinol 300mg Tab	00294322 Zylorprim 00363693 Novo-Purol 00402796 Apo-Allopurinol 00415766 Purinol 00454354 Alloprin	BWE NOP APX HOR ICN	.0433
1650	Amantadine HCl 100mg Cap	00589012 Symmetrel	DUP	.6634
1651	Amantadine HCl 10mg/mL O/L	00589004 Symmetrel	DUP	.1121
1652	Azathioprine 50mg Tab	00004596 Imuran	BWE	.7800
1653	Bromocriptine 5mg Cap	00568643 Parlodel	SAN	1.5040
1654	Bromocriptine 2.5mg Tab	00371033 Parlodel	SAN	.8670
1655	Calcium Carbimide 50mg Tab	00014958 Temposil	LED	.4696
1656	Clomiphene Citrate 50mg Tab	#00018031 Clomid 00893722 Serophene	MER SRO	3.9140
1657	Colchicine 0.6mg Tab	00000396 Colchicine 00094382 Colchicine 00287873 Colchicine	ABB DTC ROG	.0525
1658	Colchicine 1mg Tab	00206032 Colchicine	ROG	.2010
1659	Disulfiram 250mg Tab	00002534 Antabuse	AYE	.2907
1660	Disulfiram 500mg Tab	00002542 Antabuse	AYE	.5527
1661	Etidronate Disodium 200mg Tab	00582522 Didronel	EAT	1.2600
1662	Glucagon Inj Pd-1mg Pk	00015377 Glucagon	LIL	23.4021

Item 92:00 Unclassified Therapeutic Agents

1663	Levodopa 250mg Tab	00013331 Larodopa	HLR	.1550
1664	Levodopa 500mg Tab	#00013358 Larodopa	HLR	.2625
1665	Levodopa & Benserazide 30mg & 12.5mg Cap	00522597 Prolopa 50-12.5	HLR	.2460
1666	Levodopa & Benserazide 100mg & 25mg Cap	00386464 Prolopa 100-25	HLR	.4045
1667	Levodopa & Benserazide 200mg & 50mg Cap	00386472 Prolopa 200-50	HLR	.6795
1668	Levodopa & Carbidopa 100mg & 10mg Tab	00355658 Sinemet	MSD	.3450
1669	Levodopa & Carbidopa 100mg & 25mg Tab	00513997 Sinemet	MSD	.5088
1670	Levodopa & Carbidopa 250mg & 25mg Tab	00328219 Sinemet	MSD	.5453
1671	Methotrexate Sodium 2.5mg Tab	+00874132 Rheumatrex	LED	.9856
1672	Pentoxifylline 400mg LA Tab	00586625 Trental	HOE	.5972
1673	Phenazopyridine HCl 100mg Tab	00271489 Phenazo 00476714 Pyridium	ICN PDA	.1129
1674	Phenazopyridine HCl 200mg Tab	00454583 Phenazo 00476722 Pyridium	ICN PDA	.1564
1675	Sodium Cromoglycate 100mg Cap	00500895 Nalcrom	FIS	.9167
1676	Sodium Cromoglycate Inh-112 dose Pk	00990981 Intal	FIS	23.8600
1677	Sodium Cromoglycate Inh-200 dose Pk	00555649 Intal	FIS	37.5500
1678	Sodium Cromoglycate 1% Inh Sol-2mL Pk	00534609 Intal	FIS	.7360
1679	Sodium Cromoglycate 20mg/Cart Pd Inh	00261238 Intal Spincaps	FIS	.4417
1680	Sterile Water for Injection Inj Sol-10mL Pk	00624721 Sterile Water	AST	.5012

FARM PRODUCTS MARKETING ACT**O. Reg. 46/91.**

Vegetables for Processing—Marketing.

Made—February 14th, 1991.

Filed—February 15th, 1991.

**REGULATION TO AMEND
REGULATION 388 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
FARM PRODUCTS MARKETING ACT**

1. Section 11 of Regulation 388 of Revised Regulations of Ontario, 1980, as amended by section 1 of Ontario Regulation 174/85 and section 1 of Ontario Regulation 82/90, is revoked and the following substituted:

11.—(1) For each of the vegetables listed in Column I of the Schedule, the processors may appoint members to the number of negotiating agencies that is listed in Column II of the Schedule opposite the name of the relevant vegetable.

(2) The Ontario Food Processors' Association shall notify the Commission and the local board of the names of the processors represented on each negotiating agency by the date specified in Column III of the Schedule opposite the name of the relevant vegetable.

(3) The local board may select, in addition to those processors of which it has already been notified under subsection (2), one or more processors to appoint members to a negotiating agency for the purpose of negotiating an agreement in respect of a vegetable listed in Column I of the Schedule.

(4) The local board shall select additional processors under subsection (3) by giving written notice to that effect to the processors, the Ontario Food Processors' Association and the Commission not later than seven days after the date listed in Column III of the Schedule for the vegetable.

(5) A negotiating agency shall be composed of not more than twenty persons of whom the processors and the local board may each appoint a maximum of ten.

(6) The processors and the local board shall notify the Commission in writing of the names and addresses of the persons appointed under subsection (5) not later than the 15th day of January in each year.

(7) Where the local board or the processors fail to appoint members to a negotiating agency in accordance with subsection (5) or subsection 12 (4), the Commission shall appoint such persons as are necessary.

(8) The members of the negotiating agencies appointed under subsection (5) are members until the 14th day of January of the year following the year in which they were appointed.

(9) Where a member of a negotiating agency appointed under subsection (5) or subsection 12 (4) dies or resigns or is unable to act because of injury, illness or circumstances beyond his control or, where applicable, ceases to be a member of the local board, before the expiration of the term of membership, the local board or the processors, as the case may be, who appointed that member shall appoint a person for the unexpired term.

(10) Where the local board or the processors fail to make an appointment under subsection (9) within seven days after a vacancy occurs, the Commission shall appoint such persons as are necessary to complete the negotiating agency.

(11) The negotiating agencies shall conduct an initial round of negotiations that shall come to an end at 4 p.m. on the date set out in Column IV of the Schedule. O. Reg. 46/91, s. 1.

2. Sections 12 and 13 of the Regulation are revoked and the following substituted:

12.—(1) Upon completion of the initial round of negotiations, every processor that did not take part in the initial round shall, not later than seven days after the deadline in Column IV of the Schedule, file with the local board, the Ontario Food Processors' Association and the Commission,

- (a) its election to be bound by one of the settled agreements achieved during the initial round for each vegetable or its commitment to either of the statements of final position that is being referred to arbitration under section 16; or
- (b) its declaration of intent to negotiate in the subsequent round.

(2) Where a processor fails to comply with subsection (1), the local board shall determine which of the settled agreements or awards shall apply in respect of that processor for each vegetable listed in Column I of the Schedule.

(3) The local board may file with any processor, the Ontario Food Processors' Association and the Commission a written declaration of intent to negotiate not later than seven days after the deadline for each vegetable set out in Column IV of the Schedule.

(4) Where a declaration of intent to negotiate has been filed by a processor under subsection (1) or by the local board under subsection (3), a negotiating agency or agencies for each of the vegetables in respect of which a declaration has been filed shall be reappointed by notifying the Commission in writing of the names and addresses of the persons appointed.

(5) A second round of negotiations conducted in respect of a vegetable shall come to an end at 4 p.m. on the date set out in Column V of the Schedule. O. Reg. 46/91, s. 2, *part*.

13. Each negotiating agency established under section 11 or 12 is empowered to adopt or settle by agreement in respect of the vegetable or vegetables for which it was appointed,

- (a) minimum prices for the vegetable or vegetables or for any class, variety, grade or size thereof;
- (b) terms, conditions and forms of agreement relating to the producing or marketing of the vegetable or vegetables; and
- (c) any charges, costs or expenses relating to the production or marketing of the vegetable or vegetables. O. Reg. 46/91, s. 2, *part*.

3. Section 14 of the Regulation, as amended by section 1 of Ontario Regulation 115/82 and section 1 of Ontario Regulation 80/89, is revoked and the following substituted:

14.—(1) The members of a negotiating agency appointed by the local board or those appointed by the processor may convene a meeting of the agency by giving a notice in writing to the other members of the agency at least five days but not more than seven days before the date of the meeting, stating the time and place of the meeting.

(2) With the consent of all members of a negotiating agency, the notice requirements of subsection (1) may be waived. O. Reg. 46/91, s. 3.

4. Section 15 of the Regulation is revoked and the following substituted:

15.—(1) A negotiating agency for a vegetable may refer matters to conciliation in accordance with this section at any time,

- (a) during the initial round of negotiations, before the date set out in Column IV of the Schedule;

- (b) during the second round of negotiations, before the date set out in Column V of the Schedule.
- (2) The Commission shall appoint a conciliator acceptable to both the members appointed by the processor and those appointed by the local board.
- (3) The negotiating agency shall submit to the conciliator a statement of matters in dispute.
- (4) The conciliator shall,
- endeavour to effect agreement on any matter referred to the conciliator under subsection (3); and
 - recommend adoption of any agreement effected under clause (a) to the negotiating agency. O. Reg. 46/91, s. 4.
- 5. Section 16 of the Regulation, as amended by section 2 of Ontario Regulation 80/89 and section 3 of Ontario Regulation 82/90, is revoked and the following substituted:**
- 16.—**(1) If a negotiating agency has not arrived at a comprehensive settlement of matters set out in section 13 by 4 p.m. on the relevant deadline date shown in the Schedule, it shall immediately notify the Commission of the fact.
- (2) The notice shall be accompanied by a statement or statements of the matters in dispute and a statement of the final positions of the members appointed by the local board and the members appointed by the processors.
- (3) The Commission shall refer the matters in dispute to arbitration.
- (4) The arbitration shall be conducted by an arbitration board consisting of,

- three members, if all the members of the negotiating agency consent, or if the vegetable is tomatoes and more than one negotiating agency has notified the Commission of failure to settle; or
 - one member, in every other case.
- (5) If more than one arbitration is required for the same vegetable, the same arbitration board shall conduct the arbitrations.
- (6) The members of a negotiating agency that requires arbitration shall appoint the member or members of the arbitration board.
- (7) If the members of a negotiating agency cannot agree on the member or members of the arbitration board within forty-eight hours after 4 p.m. on the relevant deadline date shown in the Schedule, the Commission shall appoint the arbitration board.
- (8) If a member of an arbitration board dies, resigns or is unable to act because of injury, illness or circumstances beyond the member's control before it has made an award, the vacancy shall be filled by the Commission and the arbitration shall be continued and completed by the arbitration board as newly constituted.
- (9) Before an arbitration board has made a decision on a matter, the arbitration board may, if the board and the parties to the arbitration agree, refer the matter to the negotiating agency for further negotiation in accordance with section 11.
- (10) An arbitration board shall, in making an award, select without modification one of the statements of final position filed with the Commission under subsection (2), except that, if the parties to an arbitration agree, the arbitration board may make individual awards with respect to one or more matters in dispute by selecting the final position of either party on the matter or matters. O. Reg. 46/91, s. 5.

6. The Regulation is amended by adding the following Schedule:

Schedule

COLUMN I	COLUMN II	COLUMN III	COLUMN IV	COLUMN V
Vegetable	Maximum number of negotiating agencies appointed by processors	Notification Date	Deadline Date Initial Round	Deadline Date Subsequent Round
1. Tomatoes	3	Nov. 15th	Feb. 19th	Mar. 19th
2. Sweet Corn	2	Nov. 15th	Feb. 22nd	Mar. 22nd
3. Peas	2	Nov. 15th	Feb. 15th	Mar. 15th
4. Cucumbers	1	Nov. 15th	Feb. 15th	Mar. 15th
5. Green and Waxed Beans	1	Nov. 30th	Mar. 1st	Apr. 1st
6. Peppers	1	Nov. 30th	Mar. 1st	Apr. 1st
7. Carrots	1	Nov. 30th	Mar. 1st	Apr. 1st
8. Cabbage	1	Nov. 30th	Mar. 1st	Apr. 1st
9. Beets	1	Nov. 30th	Mar. 11th	Apr. 2nd
10. Cauliflower	1	Nov. 30th	Mar. 11th	Apr. 2nd
11. Lima Beans	1	Nov. 30th	Mar. 11th	Apr. 2nd
12. Pumpkin and Squash	1	Nov. 30th	Mar. 11th	Apr. 2nd

O. Reg. 46/91, s. 6.

ONTARIO FARM PRODUCTS MARKETING COMMISSION:

RUSSELL DUCKWORTH
ChairJOE MAZZEI
Assistant Secretary

Dated at Toronto, this 14th day of February, 1991.

9/91

EDUCATION ACT

O. Reg. 47/91.

Trustee Distribution.

Made—February 14th, 1991.

Filed—February 15th, 1991.

REGULATION TO AMEND
ONTARIO REGULATION 384/88
MADE UNDER THE
EDUCATION ACT

1.—(1) Subsection 2 (1) of Ontario Regulation 384/88 is amended by striking out “subsections (2), (3) and (4)” in the first line and substituting “subsections (2) to (4)”.

(2) Subsection 2 (3) of the Regulation is revoked and the following substituted:

(3) If the area of jurisdiction of a board is composed of all or the major part of two counties, a determination and a distribution shall be made by the clerks of the municipalities having the largest population in each county and the clerk of the municipality having the next largest population.

(3a) If the area of jurisdiction of a board is composed of all or the major part of three counties, a determination and a distribution shall be made by the clerks of the municipalities having the largest population in each county. O. Reg. 47/91, s. 1 (2).

(3) Subsections 2 (6) to (9) of the Regulation are revoked and the following substituted:

(6) A determination and a distribution under Part VII-A of the Act shall be made before the 15th day of March in the year of a regular election under the *Municipal Elections Act* or, if the determination of the calculated enrolment and the total calculated enrolment of the board is referred to the Languages of Instruction Commission of Ontario under subsection 277q (4) of the Act, before the 15th day of April in that year.

(7) If the members of a board who represent an electoral group direct that an alternative distribution be made, the alternative distribution shall be made before the 31st day of March in the year of a regular election under the *Municipal Elections Act* or, if the determination of the calculated enrolment and the total calculated enrolment of the board is referred to the Languages of Instruction Commission of Ontario under subsection 277q (4) of the Act, before the 30th day of April in that year.

(8) The clerk of the municipality having the largest population shall

send the Minister, the secretary of the board and the clerks of all municipalities and regional municipalities that are wholly or partly within the area of jurisdiction of the board,

- (a) a copy of the final determination and the final distribution made under Part VII-A of the Act;
- (b) a copy of any resolution under rule 6 of subsection 206a (6) of the Act approving an increase or decrease in the number of members of the board;
- (c) a copy of any resolution under subsection 206a (13) of the Act directing that an alternative distribution be made; and
- (d) a copy of the data and calculations by which the final determination and final distribution were made.

(9) The copies required to be sent under subsection (8) shall be sent by registered mail not later than the 31st day of March in the year of a regular election under the *Municipal Elections Act* or, if the determination of the calculated enrolment and the total calculated enrolment of the board is referred to the Languages of Instruction Commission of Ontario under subsection 277q (4) of the Act, not later than the 30th day of April in that year. O. Reg. 47/91, s. 1 (3).

(4) Subsections 2 (11) to (17) of the Regulation are revoked.

2.—(1) Subsection 3 (1) of the Regulation is revoked and the following substituted:

(1) If two or more municipalities are combined for the election of one or more members, the nominations shall be submitted to the returning officer of the municipality having the largest population. O. Reg. 47/91, s. 2 (1).

(2) Subsection 3 (7) of the Regulation is amended by adding after "subsection 52 (3)" in the third line "or 112 (1)".

9/91

EMPLOYMENT STANDARDS ACT

O. Reg. 48/91.

Agricultural Industry Advisory Committee.

Made—February 14th, 1991.

Filed—February 15th, 1991.

REGULATION MADE UNDER THE EMPLOYMENT STANDARDS ACT

AGRICULTURAL INDUSTRY ADVISORY COMMITTEE

1.—(1) The Agricultural Industry Advisory Committee is established.

(2) The Committee may advise the Minister on matters related to the agricultural industry. O. Reg. 48/91, s. 1.

2.—(1) The Committee shall be composed of six persons who shall be appointed by the Minister.

(2) A member of the Committee shall be designated as chair by the Minister. O. Reg. 48/91, s. 2.

9/91

Publications under the Regulations Act

Publications en vertu de la Loi sur les règlements

1991—03—09

NIAGARA PARKS ACT

O. Reg. 49/91.

General.

Made—August 28th, 1990.

Approved—February 14th, 1991.

Filed—February 18th, 1991.

REGULATION TO AMEND REGULATION 686 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE NIAGARA PARKS ACT

1. Subsection 2 (9) of Regulation 686 of Revised Regulations of Ontario, 1980 is amended by adding the following clause:

- (ha) park a vehicle in a parking space designated for use by the disabled, unless the vehicle is marked for use by the disabled;

2.—(1) Subsection 13 (4) of the Regulation is revoked and the following substituted:

(4) No person shall operate any vehicle within the Parks except on those portions of the Commission's highways, roads, boulevards and parkways provided for vehicular traffic.

(4a) No person shall operate a vehicle drawn, propelled or driven by muscular power on those portions of the Commission's highways, roads, boulevards and parkways that have signs erected prohibiting the operation of such vehicles.

(4b) Subsection (4) does not apply to a person riding a bicycle on paths where signs that permit bicycling are erected. O. Reg. 49/91, s. 2 (1).

(2) Section 13 of the Regulation is amended by adding the following subsection:

(11) No person shall walk on those portions of the Commission's highways, roads, boulevards and parkways that have signs erected prohibiting walking. O. Reg. 49/91, s. 2 (2).

3. Section 14 of the Regulation, as remade by section 1 of Ontario Regulation 68/86, is revoked and the following substituted:

14.—(1) Every operator of a vehicle, except a person on a bicycle, shall bring the vehicle to a full stop immediately before entering the travelled portion of any highway, road, boulevard or parkway of the Commission.

(2) A person on a bicycle entering the travelled portion of a highway, road, boulevard or parkway of the Commission from a path on which the use of bicycles is permitted shall yield to all vehicles on that portion.

(3) Every operator of a motorized vehicle entering a path that is not part of the travelled portion of a highway, road, boulevard or parkway

of the Commission shall yield to persons on the path. O. Reg. 49/91, s. 3.

THE NIAGARA PARKS COMMISSION:

PAMELA V. WALKER
Chairman

DENNIS W. SCHAFFER
General Manager

Dated at Niagara Falls, this 28th day of August, 1990.

10/91

DAY NURSERIES ACT

O. Reg. 50/91.

General.

Made—January 31st, 1991.

Filed—February 18th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 760/83 MADE UNDER THE DAY NURSERIES ACT

1. Clause 53 (4) (c) of Ontario Regulation 760/83 is revoked.

2. Subsection 55 (2) of the Regulation is revoked and the following substituted:

(2) A Director may approve the placement of children in one age group with children in another age group provided that,

- (a) the ratio of employees to children and the group size required for the younger age group are used for mixed age groups if more than 20 percent of the children are from the younger age group; and

- (b) younger or older children are placed in not more than one group for each category as set out in Schedule 3 for each day nursery operated by the operator. O. Reg. 50/91, s. 2.

10/91

PLANNING ACT, 1983

O. Reg. 51/91.

Restricted Areas—District of Algoma, Sault Ste. Marie North Planning Area.

Made—February 18th, 1991.

Filed—February 21st, 1991.

REGULATION TO AMEND ONTARIO REGULATION 279/80 MADE UNDER THE PLANNING ACT, 1983

1. Ontario Regulation 279/80 is amended by adding the following section:

118.—(1) Sewage works, as defined in the *Ontario Water Resources Act*, that are incidental to the commercial resort facilities described in subsection (4), may be erected and used on the land described in subsection (3) if the sewage works are approved under the *Ontario Water Resources Act* and are flood proofed to a minimum elevation of 234.78 metres Canadian Geodetic Datum.

(2) Sections 5, 55 and 56 do not apply with respect to sewage works permitted by subsection (1).

(3) Subsection (1) applies to that parcel of land in the geographic Township of Hodgins in the Territorial District of Algoma, being part of the northeast quarter of Lot 9 in Concession V, designated as Parcel 1131 in the register for Algoma West Section in the Land Registry Office for the Land Titles Division of Algoma (No. 1).

(4) The commercial resort facilities referred to in subsection (1) are the facilities existing when this section comes into force on that parcel of land in the geographic Township of Hodgins in the Territorial District of Algoma, being part of Lot 8 in Concession V, designated as Parcel 4623 in the register for Algoma West Section in the Land Registry Office for the Land Titles Division of Algoma (No. 1). O. Reg. 51/91, s. 1.

PETER W. BOLES
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 18th day of February, 1991.

10/91

PLANNING ACT, 1983

O. Reg. 52/91.

Restricted Areas—District of Manitoulin,
Geographic townships of Campbell, Dawson,
Mills and Robinson.
Made—February 18th, 1991.
Filed—February 21st, 1991.

REGULATION TO AMEND ONTARIO REGULATION 672/81 MADE UNDER THE PLANNING ACT, 1983

1. Ontario Regulation 672/81 is amended by adding the following section:

140.—(1) Despite subsection 47(1), a building designed for use by, and occupied by, a single household, together with buildings and structures accessory to it may be erected and used on each of the parcels

of land designated as parts 1, 2 and 3 on the Reference Plan described in subsection (2) if the requirements set out in subsection 48 (3) are met.

(2) Subsection (1) applies to those lands in the geographic Township of Campbell in the Territorial District of Manitoulin being part of Lot 1 in Concession XIII designated as parts 1, 2 and 3 on Reference Plan 31R-2122 deposited in the Land Registry Office for the Registry Division of Manitoulin (No. 31). O. Reg. 52/91, s. 1.

PETER W. BOLES
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 18th day of February, 1991.

10/91

PLANNING ACT, 1983

O. Reg. 53/91.

Restricted Areas—District of Manitoulin,
Geographic townships of Campbell, Dawson,
Mills and Robinson.
Made—February 18th, 1991.
Filed—February 21st, 1991.

REGULATION TO AMEND ONTARIO REGULATION 672/81 MADE UNDER THE PLANNING ACT, 1983

1. Ontario Regulation 672/81 is amended by adding the following section:

141.—(1) Despite section 4, the land described in subsection (2) is, for the purposes of this Order, land in a Shoreline Residential Zone.

(2) Subsection (1) applies to that parcel of land in the geographic Township of Campbell in the Territorial District of Manitoulin being part of Lot 5 in Concession VI designated as Part 1 on Reference Plan 31R-1626 deposited in the Land Registry Office for the Registry Division of Manitoulin (No. 31). O. Reg. 53/91, s. 1.

PETER W. BOLES
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 18th day of February, 1991.

10/91

Publications under the Regulations Act Publications en vertu de la Loi sur les règlements

1991—03—16

LAND REGISTRATION REFORM ACT, 1984

O. Reg. 54/91.

General.

Made—January 21st, 1991.

Filed—February 25th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 580/84 MADE UNDER THE

LAND REGISTRATION REFORM ACT, 1984

1. Subsection 1 (2) of Ontario Regulation 580/84 is amended by adding the following paragraph:

28. Those portions of the townships of West Nissouri, London and North Dorchester described as follows:

Commencing at the intersection of the westerly limit of the road between the townships of London and West Nissouri with the southerly widened limit of Highway No. 7;

Thence easterly along the said southerly limit of Highway No. 7 to the easterly limit of the Township of West Nissouri;

Thence southerly along the last-mentioned township limit and its production to the southerly widened limit of Highway No. 2;

Thence westerly along the said southerly limit of Highway No. 2 to the westerly widened limit of County Road 27;

Thence northerly along the said westerly limit of County Road 27 to the southerly widened limit of County Road 28;

Thence westerly along the said southerly limit of County Road 28 to the previously mentioned road between the townships of London and West Nissouri;

Thence northerly along the westerly widened limit of the last-mentioned road to the point of commencement.

11/91

LAND REGISTRATION REFORM ACT, 1984

O. Reg. 55/91.

General.

Made—January 21st, 1991.

Filed—February 25th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 580/84 MADE UNDER THE

LAND REGISTRATION REFORM ACT, 1984

1. Subsection 1 (2) of Ontario Regulation 580/84 is amended by adding the following paragraph:

29. That portion of the City of Chatham described as follows:

Commencing at the intersection of the southwesterly limit of Lacroix Street as widened with the southeasterly limit of Indian Creek Road as widened;

Thence southwesterly along the said southeasterly limit of Indian Creek Road to the southwesterly limit of Howard Road;

Thence northwesterly along the said southwesterly limit of Howard Road to the southeasterly limit of Hitchcock Road;

Thence southwesterly along the said southeasterly limit of Hitchcock Road to the southwesterly limit of Bloomfield Road as widened;

Thence northwesterly along the said southwesterly limit of Bloomfield Road and its production to the northwesterly limit of the Thames River;

Thence northeasterly along the said limit of the Thames River to the southwesterly limit of Lacroix Street;

Thence southeasterly to and along the said southwesterly limit of Lacroix Street as widened to the point of commencement.

11/91

LAND REGISTRATION REFORM ACT, 1984

O. Reg. 56/91.

General.

Made—January 21st, 1991.

Filed—February 25th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 580/84 MADE UNDER THE LAND REGISTRATION REFORM ACT, 1984

1. Subsection 1 (2) of Ontario Regulation 580/84 is amended by adding the following paragraph:

30. All those portions of the City of Chatham, the Township of Raleigh and the Township of Harwich described as follows:

Commencing at the intersection of the southwesterly limit of Lacroix Street as widened with the southeasterly limit of Indian Creek Road as widened;

Thence northwesterly along the said southwesterly limit of Lacroix Street and its production to the northwesterly limit of the Thames River;

Thence northeasterly along the said limit of the Thames River to the southwesterly limit of the lands of the Chesapeake and Ohio Railway;

Thence southeasterly along the said southwesterly limit of the railway lands to the southeasterly limit of the Thames River;

Thence northeasterly along the said southwesterly limit of

Lot 4, Concession 1 R.T.S. in the said Township of Harwich;

Thence northwesterly along the said limit of Lot 4, Concession 1 R.T.S. to the southeasterly limit of Grand Avenue, also known as Highway 2, as widened;

Thence northeasterly along the said southeasterly limit of Grand Avenue to the southwesterly widened limit of County Road 30;

Thence southeasterly along the said southwesterly limit of County Road 30 to the southeasterly widened limit of Highway 40;

Thence southwesterly along the said southeasterly limit of Highway 40 to the southwesterly limit of Lot 6, Concession 1 R.T.S. in the said Township of Harwich;

Thence southeasterly along the said limit of Lot 6, Concession 1 R.T.S. to the southeasterly limit of a travelled road on the easterly continuation of Park Avenue;

Thence southwesterly along the last-mentioned southeasterly limit to and along the southeasterly limit of Park Avenue as widened to the southwesterly widened limit of Creek Road;

Thence southeasterly along the said southwesterly limit of Creek Road to the previously mentioned southeasterly limit of Indian Creek Road;

Thence southwesterly along the said southeasterly limit of Indian Creek Road to the point of commencement.

11/91

LAND REGISTRATION REFORM ACT, 1984

O. Reg. 57/91.

General.

Made—January 21st, 1991.

Filed—February 25th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 580/84 MADE UNDER THE LAND REGISTRATION REFORM ACT, 1984

1. Subsection 1 (2) of Ontario Regulation 580/84 is amended by adding the following paragraph:

31. All those portions of the City of Chatham, the Township of Chatham and the Township of Dover described as follows:

Commencing at the intersection of the westerly limit of Third Street with the northwesterly limit of the Thames River in the City of Chatham;

Thence northeasterly along the said limit of the Thames River to the southwesterly limit of the lands of the Chesapeake and Ohio Railway;

Thence southeasterly along the said southwesterly limit of the railway lands to the southeasterly limit of the Thames River;

Thence northeasterly along the said southeasterly limit of the Thames River to its intersection with the southwesterly limit of Lot 4, Concession 1 R.T.S. in the former Township of Harwich;

Thence northwesterly along the said limit of Lot 4, Concession 1 R.T.S. to the southeasterly limit of Grand Avenue, also known as Highway 2, as widened;

Thence northeasterly along the said southeasterly limit of Grand Avenue to the southwesterly widened limit of County Road 30;

Thence northwesterly along the said widened limit of County Road 30 to the road allowance between concessions 4 and 5 in the said Township of Chatham;

Thence southwesterly along the said southeasterly widened limit of the last-mentioned road allowance to the southwesterly widened limit of the road allowance between the townships of Chatham and Dover, also known as Highway 40;

Thence southeasterly along the said southwesterly limit of Highway 40 to and along the southwesterly widened limit of St. Clair Street to its intersection with the said westerly limit of Third Street;

Thence southerly along the said westerly limit of Third Street to the point of commencement.

11/91

LAND REGISTRATION REFORM ACT, 1984

O. Reg. 58/91.

General.

Made—January 21st, 1991.

Filed—February 25th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 580/84 MADE UNDER THE LAND REGISTRATION REFORM ACT, 1984

1. Subsection 1 (2) of Ontario Regulation 580/84 is amended by adding the following paragraph:

32. That portion of the City of Chatham described as follows:

Commencing at the intersection of the westerly limit of Third Street with the northwesterly limit of the Thames River;

Thence southwesterly along the said limit of the Thames River to the southwesterly limit of the road allowance between lots 19 and 20 in the Front Concession of the Township of Dover;

Thence northwesterly along the last-mentioned southwesterly limit to and along the southwesterly widened limit of Bear Line Road to the southwesterly production of the southeasterly limit of McNaughton Avenue;

Thence northeasterly to and along the said southeasterly limit of McNaughton Avenue to the southwesterly limit of Baldoon Road;

Thence northwesterly along the said southwesterly limit of Baldoon Road to the southwesterly production of the southeasterly limit of Oxley Drive;

Thence northeasterly to and along the said southeasterly limit of Oxley Drive to the southwesterly limit of St. Clair Street as widened;

Thence southeasterly along the said southwesterly limit of St. Clair Street to its intersection with the westerly limit of Third Street;

Thence southerly along the said westerly limit of Third Street to the point of commencement.

11/91

LAND REGISTRATION REFORM ACT, 1984**O. Reg. 59/91.**

General.

Made—May 7th, 1990.

Filed—February 25th, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 580/84
MADE UNDER THE****LAND REGISTRATION REFORM ACT, 1984****1. Subsection 1 (2) of Ontario Regulation 580/84 is amended by adding the following paragraph:**

33. All that portion of the City of Scarborough (originally the Township of Scarborough) and the City of North York (originally the Township of York) bounded by the southerly limit of Sheppard Avenue East as widened between Victoria Park Avenue and Twyn Rivers Drive, the southerly and easterly limits of Twyn Rivers Drive as widened between Sheppard Avenue East and the Township of Pickering, the westerly limit of the Township of Pickering between Twyn Rivers Drive and Highway 401, the southerly limit of Highway 401 as widened between the Township of Pickering and Centennial Road, the westerly limit of Centennial Road as widened between Highway 401 and Highway 2, the southerly limit of Highway 2 as widened between Centennial Road and Ellesmere Road, the westerly and southerly limits of Ellesmere Road as widened between Highway 2 and Victoria Park Avenue and the westerly limit of Victoria Park Avenue as widened between Ellesmere Road and Sheppard Avenue East.

11/91

LAND REGISTRATION REFORM ACT, 1984**O. Reg. 60/91.**

General.

Made—January 21st, 1991.

Filed—February 25th, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 580/84
MADE UNDER THE****LAND REGISTRATION REFORM ACT, 1984****1. Subsection 1 (2) of Ontario Regulation 580/84 is amended by adding the following paragraph:**

34. Those portions of the City of London and Township of Westminster described as follows:

Commencing at the intersection of the westerly widened limit of Highbury Avenue with the southerly widened limit of Trafalgar Street;

Thence easterly along the said limit of Trafalgar Street to its intersection with the southwesterly limit of the lands of the Canadian National Railway;

Thence southeasterly along the last-mentioned limit to the westerly widened limit of Hale Street;

Thence northerly to the point of intersection of the north-easterly limit of the said railway lands with the westerly widened limit of Hale Street;

Thence southeasterly along the last-mentioned limit of the railway lands to the southerly widened limit of Trafalgar Street;

Thence easterly along the said limit of Trafalgar Street to the westerly widened limit of Clarke Side Road;

Thence southerly along the said limit of Clarke Side Road to the southerly widened limit of Gore Road;

Thence easterly along the said limit of Gore Road to the westerly widened limit of Crumlin Road;

Thence southerly along the said limit of Crumlin Road to the northerly widened limit of River Road;

Thence southwesterly to the southeast corner of River Road and Airport Road;

Thence westerly to the southwest corner of River Road and Airport Road;

Thence southerly along the westerly widened limit of Airport Road to the southerly limit of the Thames River;

Thence westerly along the said southerly limit of the Thames River to the westerly widened limit of Highbury Avenue;

Thence northerly along the said limit of Highbury Avenue to the point of commencement.

11/91

PLANNING ACT, 1983**O. Reg. 61/91.**

Restricted Areas—District of Sudbury, Territorial District of Sudbury.

Made—February 21st, 1991.

Filed—February 26th, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 834/81
MADE UNDER THE
PLANNING ACT, 1983****1. Schedule 1 to Ontario Regulation 834/81 is amended by adding the following section:**

102.—(1) Although the land described in subsection (2) is shown on the maps referred to in section 4 as being in an Institutional Zone and in a Rural Zone, it shall be deemed to be in a Hamlet Residential Zone.

(2) Subsection (1) applies to that parcel of land in the geographic Township of Bigwood in the Territorial District of Sudbury described as follows:

FIRSTLY, part of Lot 6 in Concession VI, designated as parts 1 and 2 on Reference Plan 53R-9484 deposited in the Land Registry Office for the Land Titles Division of Sudbury (No. 53) and shown as Parcel 46099 Sudbury East Section;

SECONDLY, part of Lot 5 in Concession VI, designated as Part 1 on Reference Plan 53R-10290 deposited in that Office and shown as Parcel 47118 Sudbury East Section.

PETER W. BOLES
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 21st day of February, 1991.

11/91

PLANNING ACT, 1983

O. Reg. 62/91.

Restricted Areas—District of Manitoulin,
Geographic townships of Campbell, Dawson,
Mills and Robinson.
Made—February 21st, 1991.
Filed—February 26th, 1991.

REGULATION TO AMEND
ONTARIO REGULATION 672/81
MADE UNDER THE
PLANNING ACT, 1983

1. Ontario Regulation 672/81 is amended by adding the following section:

142.—(1) Despite subsection 47 (1), a duplex and accessory buildings and structures may be erected and used on the land described in subsection (2) if the following requirements are met:

Maximum lot coverage	15 per cent
Minimum front yard	11 metres
Minimum rear yard	15 metres
Minimum side yard	3 metres
Maximum height	9 metres

(2) Subsection (1) applies to that parcel of land in the geographic Township of Dawson in the Territorial District of Manitoulin being part of Lot 29 in Concession IX, described as follows:

Commencing at a point on the north boundary of the Lot 198 feet from the northeast angle;

Thence west along the north boundary 234 feet;

Thence south and parallel to the east boundary 330 feet;

Thence east and parallel to the north boundary 234 feet;

Thence north and parallel to the west boundary 330 feet to the point of beginning. O. Reg. 62/91, s. 1.

PETER W. BOLES
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 21st day of February, 1991.

11/91

PLANNING ACT, 1983

O. Reg. 63/91.

Restricted Areas—County of Ontario (now The Regional Municipality of Durham), Township of Pickering (now the Town of Pickering).
Made—February 27th, 1991.
Filed—February 28th, 1991.

REGULATION TO AMEND
ONTARIO REGULATION 102/72
MADE UNDER THE
PLANNING ACT, 1983

1. Ontario Regulation 102/72 is amended by adding the following section:

77.—(1) Despite section 4 of this Order, a building designed for use by, and occupied by, a single household, together with building and structures accessory to it may be erected and used on the land described in subsection (2) if the following requirements are met:

Minimum front yard	12 metres
Minimum rear yard	12 metres
Minimum side yard	3 metres
Minimum floor area of dwelling	139 square metres
Maximum lot coverage	10 per cent

(2) Subsection (1) applies to that parcel of land in the Town of Pickering in The Regional Municipality of Durham being part of Lot 12, Concession VIII designated as Part 1 on Reference Plan 40R-13371 deposited in the Land Registry Office for the Registry Division of Durham (No. 40). O. Reg. 63/91, s. 1.

DIANA LINN JARDINE
Director
Plans Administration Branch
Central and Southwest
Ministry of Municipal Affairs

Dated at Toronto, this 27th day of February, 1991.

11/91

HEALTH INSURANCE ACT

O. Reg. 64/91.

General.
Made—February 28th, 1991.
Filed—March 1st, 1991.

REGULATION TO AMEND
REGULATION 452 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
HEALTH INSURANCE ACT

1. Item 59 of Part I of Schedule 9 to Regulation 452 of Revised Regulations of Ontario, 1980 is revoked and the following substituted:

59. Scarborough Eglinton Warden Physiotherapy

11/91

MINISTRY OF HEALTH ACT

O. Reg. 65/91.

Grants to University Faculties of Medicine and General Hospitals – Pre-Internship Programs.
Made—February 20th, 1991.
Approved—February 28th, 1991.
Filed—March 1st, 1991.

REGULATION TO AMEND
ONTARIO REGULATION 675/90
MADE UNDER THE
MINISTRY OF HEALTH ACT

1. Schedules 2 and 3 to Ontario Regulation 675/90 are revoked and the following substituted:

Schedule 2

GRANTS FOR THE COMPLETION OF A COMPREHENSIVE INTERNSHIP AND ROTATING INTERNSHIP PROGRAM FOR UP TO 24 PEOPLE AND FOR THE PROVISION OF THE COMPREHENSIVE INTERNSHIP AND ROTATING INTERNSHIP PROGRAM FOR UP TO 24 PEOPLE

Faculties of Medicine and General Hospitals	Fiscal period	Amount
University of Ottawa and The Children's Hospital of Eastern Ontario, Ottawa Civic Hospital and Ottawa General Hospital	Fiscal year commencing on April 1, 1990	\$ 154,270
Queen's University and Hotel Dieu Hospital and Kingston General Hospital	Fiscal year commencing on April 1, 1990	155,014
McMaster University and Chedoke-McMaster Hospital, Hamilton Civic Hospital and St. Joseph's Hospital	Fiscal year commencing on April 1, 1990	154,610
University of Western Ontario and St. Joseph's Hospital, University Hospital and Victoria Hospital	Fiscal year commencing on April 1, 1990	155,238
University of Toronto and The Doctors Hospital, The Hospital for Sick Children, Mount Sinai Hospital, North York Branson Hospital, North York General Hospital, St. Michael's Hospital, Scarborough General Hospital, Sunnybrook Hospital, The Wellesley Hospital, The Toronto Hospital and Women's College Hospital	Fiscal year commencing on April 1, 1990	570,048
		<u>\$1,189,180</u>

O. Reg. 65/91, s. 1, part.

Schedule 3

GRANTS FOR RESIDENCY OF UP TO 24 GRADUATES OF FOREIGN MEDICAL SCHOOLS WHO HAVE COMPLETED THE COMPREHENSIVE INTERNSHIP OR ROTATING INTERNSHIP PROGRAM

Faculties of Medicine and General Hospitals	Fiscal Period	Amount
University of Ottawa and The Children's Hospital of Eastern Ontario, Ottawa Civic Hospital and Ottawa General Hospital		
Queen's University and Hotel Dieu Hospital and Kingston General Hospital		

Faculties of Medicine and General Hospitals	Fiscal Period	Amount
McMaster University and Chedoke-McMaster Hospital, Hamilton Civic Hospital and St. Joseph's Hospital	Fiscal year commencing on April 1, 1990	\$ 173,216
University of Western Ontario and St. Joseph's Hospital, University Hospital and Victoria Hospital	Fiscal year commencing on April 1, 1990	89,101
	Fiscal year commencing on April 1, 1990	80,092
University of Toronto and The Doctors Hospital, The Hospital for Sick Children, Mount Sinai Hospital, North York Branson Hospital, North York General Hospital, St. Michael's Hospital, Scarborough General Hospital, Sunnybrook Hospital, The Wellesley Hospital, The Toronto Hospital and Women's College Hospital	Fiscal year commencing on April 1, 1990	146,267
	Fiscal year commencing on April 1, 1990	744,545
		<u>\$1,233,221</u>

O. Reg. 65/91, s. 1, part,

EVELYN GIGANTES
Minister of Health

Dated at Toronto, this 20th day of February, 1991.

11/91

MINISTRY OF HEALTH ACT

O. Reg. 66/91.

Grants to University Faculties of Medicine and General Hospitals - Internships.
Made—February 20th, 1991.
Approved—February 28th, 1991.
Filed—March 1st, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 674/90
MADE UNDER THE
MINISTRY OF HEALTH ACT**

1. Schedule 1 to Ontario Regulation 674/90 is revoked and the following substituted:

Schedule 1

GRANTS FOR THE COMPLETION AND PROVISION OF
A COMPREHENSIVE INTERNSHIP AND ROTATING
INTERNSHIP PROGRAM FOR UP TO 614 POSITIONS

Faculties of Medicine and General Hospitals	Fiscal Period	Amount
University of Ottawa and The Children's Hospital of Eastern Ontario, Ottawa Civic Hospital and Ottawa General Hospital	Fiscal year commencing on April 1, 1990	\$ 2,863,413
Queen's University and Hotel Dieu Hospital and Kingston General Hospital	Fiscal year commencing on April 1, 1990	1,725,328
McMaster University and Chedoke-McMaster Hospital, Hamilton Civic Hospital and St. Joseph's Hospital	Fiscal year commencing on April 1, 1990	2,766,242
University of Western Ontario and St. Joseph's Hospital, University Hospital and Victoria Hospital	Fiscal year commencing on April 1, 1990	3,247,779
University of Toronto and The Doctors Hospital, The Hospital for Sick Children, Mount Sinai Hospital, North York Branson Hospital, North York General Hospital, St. Michael's Hospital, Scarborough General Hospital, Sunnybrook Hospital, The Wellesley Hospital, The Toronto Hospital and Women's College Hospital	Fiscal year commencing on April 1, 1990	13,060,319
		\$23,663,081

O. Reg. 66/91, s. 1.

EVELYN GIGANTES
Minister of Health

Dated at Toronto, this 20th day of February, 1991.

11/91

OTTAWA-CARLETON FRENCH-LANGUAGE
SCHOOL BOARD ACT, 1988

O. Reg. 67/91.

Proportions of Assessment—1991.

Made—February 28th, 1991.

Filed—March 1st, 1991.

REGULATION MADE UNDER THE
OTTAWA-CARLETON FRENCH-LANGUAGE
SCHOOL BOARD ACT, 1988
PROPORTIONS OF ASSESSMENT—1991

1.—(1) For purposes of taxation in 1991, the proportions of assessment of public corporations rated and assessed in each area municipality set out in Column 1 of the Schedule shall be adjusted as follows:

1. For The Ottawa Board of Education or The Carleton Board of Education, to the percentage of the assessment set out in Column 2 opposite the area municipality.
2. For The Ottawa Roman Catholic Separate School Board or The Carleton Roman Catholic Separate School Board, to the percentage of the assessment set out in Column 3 opposite the area municipality.
3. For the public sector of The Ottawa-Carleton French-language School Board, to the percentage of the assessment set out in Column 4 opposite the area municipality.
4. For the Roman Catholic sector of The Ottawa-Carleton French-language School Board, to the percentage of the assessment set out in Column 5 opposite the area municipality.

(2) The assessment commissioner shall adjust the assessment roll returned in 1990 for taxation in 1991 according to the calculations made under subsection (1). O. Reg. 67/91, s. 1.

Schedule

Column 1	Column 2	Column 3	Column 4	Column 5
<i>Cities</i>				
Gloucester	78.029	14.387	1.274	6.310
Kanata	77.410	21.608	0.326	0.656
Nepean	89.744	9.222	0.251	0.783
Ottawa	85.470	10.795	0.856	2.879
Vanier	68.828	18.155	1.505	11.512
<i>Village</i>				
Rockcliffe Park	95.202	3.163	0.577	1.058
<i>Townships</i>				
Cumberland	82.403	9.354	1.167	7.076
Goulbourn	93.470	5.983	0.158	0.389
Osgoode	91.206	7.819	0.140	0.835
Rideau	93.514	6.142	0.123	0.221
West Carleton	94.299	5.187	0.130	0.384

O. Reg. 67/91, Sched.

11/91

EDUCATION ACT

O. Reg. 68/91.

Assessment and Tax Adjustments—1991.

Made—February 28th, 1991.

Filed—March 1st, 1991.

REGULATION MADE UNDER THE
EDUCATION ACT

ASSESSMENT AND TAX ADJUSTMENTS—1991

Proportions of Assessment

1.—(1) For purposes of taxation in 1991, the proportions of assessment of public corporations rated and assessed in each area municipality set out in Column 1 of Schedule 1 shall be adjusted as follows:

1. For public school purposes, to the percentage of the assessment set out in Column 2 opposite the municipality.
2. For separate school purposes, to the percentage of the assessment set out in Column 3 opposite the municipality.

(2) The assessment commissioner shall adjust the assessment roll returned for each municipality in 1990 for taxation in 1991 according to the calculations made under subsection (1). O. Reg. 68/91, s. 1.

Allocation of Telephone and Telegraph Levies

2.—(1) For purposes of taxation in 1991, the allocation of the tax levied under subsections 161 (12) and (13) of the *Municipal Act* in each area municipality of The Regional Municipality of Ottawa-Carleton set out in Column 1 of Schedule 2 shall be adjusted as follows:

1. For The Ottawa Board of Education or The Carleton Board of Education, to the percentage of the tax levied set out in Column 2 opposite the area municipality.
2. For The Ottawa Roman Catholic Separate School Board or The Carleton Roman Catholic Separate School Board, to the percentage of the tax levied set out in Column 3 opposite the area municipality.
3. For the public sector of The Ottawa-Carleton French-language School Board, to the percentage of the tax levied set out in Column 4 opposite the area municipality.
4. For the Roman Catholic sector of The Ottawa-Carleton French-language School Board, to the percentage of the tax levied set out in Column 5 opposite the area municipality.

(2) The council of each area municipality of The Regional Municipality of Ottawa-Carleton shall allocate the tax levied under subsections 161 (12) and (13) of the *Municipal Act* according to the proportions determined under subsection (1). O. Reg. 68/91, s. 2.

3.—(1) For purposes of taxation in 1991, the allocation or payment of the tax levied under subsections 161 (12) and (13) of the *Municipal Act* in each municipality set out in Column 1 of Schedule 3 shall be adjusted as follows:

1. For public school boards, to the percentage of the tax levied set out in Column 2 opposite the municipality.
2. For separate school boards, to the percentage of the tax levied set out in Column 3 opposite the municipality.

(2) The council of each municipality set out in Column 1 of Schedule 3 shall allocate or pay the tax levied under subsections 161 (12) and (13) of the *Municipal Act* according to the proportions determined under subsection (1). O. Reg. 68/91, s. 3.

Schedule 1

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
MUNICIPALITY OF METROPOLITAN TORONTO			<u>Towns</u>		
<u>Cities</u>			Dunnville	96.900	3.100
Etobicoke	90.482	9.518	Haldimand	95.789	4.211
North York	91.864	8.136	Simcoe	95.005	4.995
Scarborough	93.486	6.514	<u>Townships</u>		
Toronto	94.134	5.866	Delhi	88.535	11.465
York	90.524	9.476	Norfolk	89.253	10.747
<u>Borough</u>			REGIONAL MUNICIPALITY OF HALTON		
East York	94.905	5.095	<u>City</u>		
REGIONAL MUNICIPALITY OF DURHAM			Burlington	92.690	7.310
<u>City</u>			<u>Towns</u>		
Oshawa	92.950	7.050	Halton Hills	95.437	4.563
<u>Towns</u>			Milton	93.656	6.344
Ajax	93.546	6.454	Oakville	93.056	6.944
Newcastle	96.103	3.897	REGIONAL MUNICIPALITY OF HAMILTON WENTWORTH		
Pickering	92.944	7.056	<u>Cities</u>		
Whitby	92.282	7.718	Hamilton	90.925	9.075
<u>Townships</u>			Stoney Creek	88.121	11.879
Brock	98.496	1.504	<u>Towns</u>		
Scugog	97.432	2.568	Ancaster	93.253	6.747
Uxbridge	97.754	2.246	Dundas	94.906	5.094
REGIONAL MUNICIPALITY OF HALDIMAND-NORFOLK			Flamborough	95.504	4.496
<u>City</u>			<u>Township</u>		
Nanticoke -			Glanbrook	94.654	5.346
Norfolk Board of Education	94.886	5.114			
Haldimand Board of Education	96.991	3.009			

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
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REGIONAL MUNICIPALITY OF NIAGARA

Cities

Niagara Falls	86.260	13.740
Port Colborne	90.534	9.466
St. Catharines	91.218	8.782
Thorold	85.806	14.194
Welland	89.271	10.729

Towns

Fort Erie	91.500	8.500
Grimsby	89.088	10.912
Lincoln	95.406	4.594
Niagara-on-the-Lake		

	93.905	6.095
Pelham	93.417	6.583

Townships

Wainfleet	93.073	6.927
West Lincoln	95.874	4.126

REGIONAL MUNICIPALITY OF PEEL

Cities

Brampton	91.374	8.626
Mississauga	90.652	9.348

Town

Caledon	93.339	6.661
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REGIONAL MUNICIPALITY OF SUDBURY

City

Sudbury	83.113	16.887
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Towns

Capreol	83.131	16.869
Nickel Centre	81.938	18.062
Onaping Falls	88.592	11.408
Rayside-Balfour	75.360	24.640
Valley East	78.828	21.172
Walden	89.186	10.814

REGIONAL MUNICIPALITY OF WATERLOO

Cities

Cambridge	91.680	8.320
Kitchener	91.617	8.383
Waterloo	93.658	6.342

Townships

North Dumfries	95.072	4.928
Wellesley	93.642	6.358
Wilmot	95.785	4.215
Woolwich	95.536	4.464

REGIONAL MUNICIPALITY OF YORK

City

Vaughan	83.994	16.006
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Towns

Aurora	93.951	6.049
East Gwillimbury		

	95.686	4.314
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Georgina	96.751	3.249
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Markham	92.809	7.191
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Newmarket	94.110	5.890
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Richmond Hill	92.457	7.543
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Whitchurch-Stouffville		
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	95.626	4.374
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Township

King	93.266	6.734
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DISTRICT MUNICIPALITY OF MUSKOKA

Towns

Bracebridge	98.146	1.854
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Gravenhurst	98.102	1.898
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Huntsville	97.955	2.045
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Townships

Georgian Bay -		
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Muskoka Board of Education		
	96.334	3.666

West Parry Sound Board of Education		
	99.271	0.729

Lake of Bays	98.375	1.625
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Muskoka Lakes	98.771	1.229
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COUNTY OF BRANT

City

Brantford	91.385	8.615
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Town

Paris	96.446	3.554
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Townships

Brantford	94.739	5.261
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Burford	91.805	8.195
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Oakland	91.686	8.314
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Onondaga	98.202	1.798
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South Dumfries	97.513	2.487
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COUNTY OF BRUCE

Towns

Chesley	99.313	0.687
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Kincardine	96.190	3.810
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Port Elgin	95.214	4.786
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Southampton	96.345	3.655
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Walkerton	86.318	13.682
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Wiarton	99.115	0.885
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<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
<u>Villages</u>			Rodney	95.459	4.541
Hepworth	99.282	0.718	Springfield	98.876	1.124
Lion's Head	99.248	0.752	Vienna	98.786	1.214
Lucknow	99.291	0.709	West Lorne	89.227	10.773
Mildmay	79.712	20.288	<u>Townships</u>		
Paisley	99.356	0.644	Aldborough	93.049	6.951
Ripley	98.765	1.235	Bayham	95.483	4.517
Tara	99.094	0.906	Dunwich	96.774	3.226
Teeswater	89.190	10.810	Malahide	93.566	6.434
Tiverton	97.165	2.835	South Dorchester	97.446	2.554
<u>Townships</u>			Southwold	97.087	2.913
Albemarle	98.472	1.528	Yarmouth	96.480	3.520
Amabel	97.270	2.730			
Arran	99.034	0.966	COUNTY OF ESSEX		
Brant	92.578	7.422			
Bruce	98.292	1.708	<u>City</u>		
Carrick	82.282	17.718	Windsor	87.152	12.848
Culross	87.379	12.621	<u>Towns</u>		
Eastnor	98.438	1.562	Amherstburg	84.269	15.731
Elderslie	99.469	0.531	Belle River	68.735	31.265
Greenock	85.444	14.556	Essex	91.104	8.896
Huron	96.626	3.374	Harrow	91.632	8.368
Kincardine	97.226	2.774	Kingsville	93.173	6.827
Kinloss	99.237	0.763	Leamington	87.649	12.351
Lindsay	98.990	1.010	Tecumseh	49.263	50.737
St. Edmunds	98.073	1.927	<u>Village</u>		
Saugeen	96.619	3.381	St. Clair Beach	83.682	16.318
			<u>Townships</u>		
COUNTY OF DUFFERIN			Anderdon	84.238	15.762
			Colchester North		
				88.398	11.602
<u>Towns</u>			Colchester South		
Grand Valley	98.882	1.118		92.374	7.626
Orangeville	96.464	3.536	Gosfield North	94.684	5.316
<u>Village</u>			Gosfield South	91.042	8.958
Shelburne	98.774	1.226	Maidstone	83.841	16.159
<u>Townships</u>			Malden	87.495	12.505
Amaranth	96.792	3.208	Mersea	92.324	7.676
East Garafraxa	97.660	2.340	Pelee	100.000	0.000
East Luther	98.687	1.313	Rochester	79.426	20.574
Melancthon	99.587	0.413	Sandwich South	82.040	17.960
Mono	97.120	2.880	Sandwich West	84.412	15.588
Mulmur	98.820	1.180	Tilbury North	78.616	21.384
			Tilbury West	91.827	8.173
COUNTY OF ELGIN					
<u>City</u>			COUNTY OF FRONTENAC		
St. Thomas	95.296	4.704			
<u>Town</u>			<u>City</u>		
Aylmer	96.079	3.921	Kingston	93.183	6.817
<u>Villages</u>			<u>Townships</u>		
Belmont	97.409	2.591	Barrie	98.547	1.453
Dutton	98.859	1.141	Bedford	96.734	3.266
Port Burwell	98.625	1.375	Clarendon and Miller		
Port Stanley	97.510	2.490		99.996	0.004

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
Hinchinbrooke	97.867	2.133	Cardiff	98.425	1.575
Howe Island	86.232	13.768	Dysart, Bruton, Clyde, Dudley,		
Kennebec	99.940	0.060	Eyre, Guilford, Harburn,		
Kingston	92.075	7.925	Harcourt and Havelock		
Loughborough	97.157	2.843		100.000	0.000
Olden	99.478	0.522	Glamorgan	100.000	0.000
Oso	99.440	0.560	Lutterworth	100.000	0.000
Palmerston and North and			Monmouth	100.000	0.000
South Canonto	99.992	0.008	Sherborne, McClintock, Livingstone		
Pittsburgh	94.502	5.498	Lawrence and Nightingale		
Portland	97.522	2.478		100.000	0.000
Storrington	97.238	2.762	Snowdon	100.000	0.000
Wolfe Island	86.378	13.622	Stanhope	100.000	0.000

COUNTY OF GREY

<u>City</u>		
Owen Sound	97.164	2.836
<u>Towns</u>		
Durham	98.079	1.921
Hanover	94.379	5.621
Meaford	99.364	0.636
Thornbury	98.757	1.243
<u>Villages</u>		
Chatsworth	99.412	0.588
Dundalk	99.890	0.110
Flesherton	98.707	1.293
Markdale	98.568	1.432
Neustadt	97.086	2.914
Shallow Lake	97.843	2.157
<u>Townships</u>		
Artemesia	98.652	1.348
Bentinck	96.968	3.032
Collingwood	98.065	1.935
Derby	98.685	1.315
Egremont	97.770	2.230
Euphrasia	98.812	1.188
Glenelg	97.544	2.456
Holland	98.413	1.587
Keppel	98.576	1.424
Normanby	97.009	2.991
Osprey	99.546	0.454
Proton	97.504	2.496
St. Vincent	99.122	0.878
Sarawak	97.717	2.283
Sullivan	99.051	0.949
Sydenham	97.922	2.078

COUNTY OF HALIBURTON

<u>Townships</u>		
Anson, Hindon and Minden	100.000	0.000
Bicroft	97.202	2.798

COUNTY OF HASTINGS

<u>Cities</u>		
Belleville	94.203	5.797
Trenton	92.439	7.561
<u>Town</u>		
Deseronto	98.103	1.897
<u>Villages</u>		
Bancroft	96.172	3.828
Deloro	89.797	10.203
Frankford	96.324	3.676
Madoc	99.043	0.957
Marmora	94.348	5.652
Stirling	98.511	1.489
Tweed	90.869	9.131
<u>Townships</u>		
Bangor, Wicklow and McClure		
	96.097	3.903
Carlow	99.785	0.215
Dungannon	98.218	1.782
Elzevir and Grimsthorpe		96.284
	3.716	
Faraday	97.318	2.682
Herschel	96.418	3.582
Hungerford	91.666	8.334
Huntingdon	97.885	2.115
Limerick	98.994	1.006
Madoc	98.574	1.426
Marmora and Lake		
	95.526	4.474
Mayo	99.960	0.040
Monteagle	97.209	2.791
Rawdon	98.983	1.017
Sidney	95.547	4.453
Thurlow	96.715	3.285
Tudor and Cashel		
	99.767	0.233
Tyendinaga	91.098	8.902
Wollaston	98.568	1.432

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
COUNTY OF HURON			Howard	91.590	8.410
			Orford	94.977	5.023
<u>Towns</u>			Raleigh	93.744	6.256
Clinton	97.229	2.771	Romney	98.436	1.564
Exeter	96.706	3.294	Tilbury East	91.660	8.340
Goderich	95.336	4.664	Zone	89.385	10.615
Seaforth	92.685	7.315	COUNTY OF LAMBTON		
Wingham	97.221	2.779	<u>City</u>		
<u>Villages</u>			Sarnia - Clearwater	91.209	8.791
Bayfield	97.676	2.324	<u>Towns</u>		
Blyth	99.082	0.918	Forest	96.289	3.711
Brussels	99.484	0.516	Petrolia	94.789	5.211
Hensall	96.191	3.809	<u>Villages</u>		
Zurich	87.205	12.795	Alvinston	100.000	0.000
<u>Townships</u>			Arkona	96.361	3.639
Ashfield	93.787	6.213	Grand Bend	97.498	2.502
Colborne	97.160	2.840	Oil Springs	98.555	1.445
East Wawanosh	98.264	1.736	Point Edward	95.009	4.991
Goderich	97.155	2.845	Thedford	99.219	0.781
Grey	96.560	3.440	Watford	95.618	4.382
Hay	91.932	8.068	Wyoming	93.381	6.619
Howick	99.406	0.594	<u>Townships</u>		
Hullett	96.852	3.148	Bosanquet	93.532	6.468
McKillop	88.938	11.062	Brooke	95.958	4.042
Morris	97.727	2.273	Dawn	99.671	0.329
Stanley	95.331	4.669	Enniskillen	95.846	4.154
Stephen	93.702	6.298	Euphemia	95.768	4.232
Tuckersmith	93.674	6.326	Moore	94.937	5.063
Turnberry	96.814	3.186	Plympton	94.161	5.839
Usborne	97.135	2.865	Sombra	92.732	7.268
West Wawanosh	95.894	4.106	Warwick	87.440	12.560
COUNTY OF KENT			COUNTY OF LANARK		
<u>City</u>			<u>Separated Town</u>		
Chatham	90.328	9.672	Smiths Falls	94.746	5.254
<u>Towns</u>			<u>Towns</u>		
Blenheim	93.889	6.111	Almonte	93.928	6.072
Bothwell	95.033	4.967	Carleton Place	90.639	9.361
Dresden	97.591	2.409	Perth	94.023	5.977
Ridgetown	94.942	5.058	<u>Village</u>		
Tilbury	82.674	17.326	Lanark	95.852	4.148
Wallaceburg	88.623	11.377	<u>Townships</u>		
<u>Villages</u>			Bathurst	97.480	2.520
Erieau	97.754	2.246	Beckwith	96.189	3.811
Erie Beach	94.407	5.593	Darling	98.348	1.652
Highgate	98.581	1.419	Drummond	96.926	3.074
Thamesville	96.044	3.956	Lanark	97.355	2.645
Wheatley	98.783	1.217	Lavant, Dalhousie and North Sherbrooke	97.086	2.914
<u>Townships</u>			Montague	96.592	3.408
Camden	95.673	4.327			
Chatham	88.544	11.456			
Dover	82.669	17.331			
Harwich	91.046	8.954			

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
North Burgess	93.977	6.023	Mosa	96.402	3.598
North Elmsley	96.157	3.843	North Dorchester	95.244	4.756
Pakenham	97.534	2.466	West Nissouri	96.684	3.316
Ramsay	95.693	4.307	West Williams	86.218	13.782
South Sherbrooke	98.102	1.898	Westminster	90.197	9.803

COUNTY OF NORTHUMBERLAND

COUNTY OF LENNOX AND ADDINGTON

<u>Town</u>		
Napanee	96.529	3.471
<u>Villages</u>		
Bath	95.526	4.474
Newburgh	97.633	2.367
<u>Townships</u>		
Adolphustown	97.737	2.263
Amherst Island	98.247	1.753
Camden East	96.180	3.820
Denbigh, Abinger and Ashby	100.000	0.000
Ernestown	95.284	4.716
Kaladar, Anglesea and Effingham	99.117	0.883
North Fredericksburgh	97.482	2.518
Richmond	97.357	2.643
Sheffield	93.094	6.906
South Fredericksburgh	98.615	1.385

COUNTY OF MIDDLESEX

<u>City</u>		
London	93.462	6.538
<u>Towns</u>		
Parkhill	94.917	5.083
Strathroy	92.394	7.606
<u>Villages</u>		
Ailsa Craig	99.169	0.831
Glencoe	97.303	2.697
Lucan	96.140	3.860
Newbury	96.380	3.620
Wardsville	95.766	4.234
<u>Townships</u>		
Adelaide	89.874	10.126
Biddulph	91.271	8.729
Caradoc	94.418	5.582
Delaware	94.221	5.779
East Williams	92.876	7.124
Ekfrid	96.242	3.758
Lobo	96.405	3.595
London	95.860	4.140
McGillivray	92.492	7.508
Metcalfe	96.933	3.067

Towns

Brighton	98.503	1.497
Campbellford	96.942	3.058
Cobourg	95.394	4.606
Port Hope	96.499	3.501
<u>Villages</u>		
Colborne	97.684	2.316
Hastings	94.760	5.240
<u>Townships</u>		
Alwick	98.065	1.935
Brighton	97.982	2.018
Cramahe	98.384	1.616
Haldimand	95.434	4.566
Hamilton	96.983	3.017
Hope	97.114	2.886
Murray	95.526	4.474
Percy	97.971	2.029
Seymour	97.496	2.504

COUNTY OF OXFORD

<u>City</u>		
Woodstock	95.772	4.228
<u>Towns</u>		
Ingersoll	96.972	3.028
Tillsonburg	93.264	6.736
<u>Townships</u>		
Blandford-Blenheim	96.947	3.053
East Zorra-Tavistock	99.061	0.939
Norwich	96.348	3.652
South-West Oxford	96.628	3.372
Zorra	96.424	3.576

COUNTY OF PERTH

<u>City</u>		
Stratford	94.934	5.066
<u>Separated Town</u>		
St. Marys	95.784	4.216
<u>Towns</u>		
Listowel	98.829	1.171
Mitchell	97.007	2.993
<u>Village</u>		
Milverton	99.192	0.808

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
<u>Townships</u>			North Marysburgh	98.033	1.967
Blanshard	96.642	3.358	Sophiasburgh	99.088	0.912
Downie	93.489	6.511	South Marysburgh	98.804	1.196
Ellice	89.500	10.500			
Elma	98.628	1.372	COUNTY OF RENFREW		
Fullarton	97.522	2.478			
Hibbert	88.695	11.305	<u>City</u>		
Logan	92.740	7.260	Pembroke	86.214	13.786
Mornington	96.269	3.731	<u>Towns</u>		
North Easthope	98.296	1.704	Arnprior	91.054	8.946
South Easthope	96.299	3.701	Deep River	92.739	7.261
Wallace	98.892	1.108	Renfrew	87.340	12.660
			<u>Villages</u>		
COUNTY OF PETERBOROUGH			Barry's Bay	74.320	25.680
			Beachburg	97.739	2.261
<u>City</u>			Braeside	91.288	8.712
Peterborough	93.806	6.194	Chalk River	85.176	14.824
<u>Villages</u>			Cobden	98.640	1.360
Havelock	98.911	1.089	Eganville	91.326	8.674
Lakefield	97.334	2.666	Killaloe	84.258	15.742
Millbrook	98.830	1.170	Petawawa	89.714	10.286
Norwood	97.656	2.344	<u>Townships</u>		
<u>Townships</u>			Admaston	90.776	9.224
Asphodel	94.809	5.191	Alice and Fraser	93.619	6.381
Belmont and Methuen			Bagot and Blithfield		
	98.364	1.636		92.468	7.532
Burleigh and Anstruther			Bromley	87.633	12.367
	99.356	0.644	Brougham	89.593	10.407
Cavan	98.047	1.953	Brudenell and Lyndoch		
Chandos	98.561	1.439		90.468	9.532
Douro	90.815	9.185	Grattan	89.056	10.944
Dummer	98.107	1.893	Griffith and Matawatchan		
Ennismore	92.978	7.022		91.091	8.909
Galway and Cavendish			Hagarty and Richards		
	98.610	1.390		85.312	14.688
Harvey	97.764	2.236	Head, Clara and Maria		
North Monaghan	96.705	3.295		90.226	9.774
Otonabee	94.512	5.488	Horton	91.887	8.113
Smith	96.810	3.190	McNab	94.027	5.973
South Monaghan	97.912	2.088	North Algona	92.972	7.028
			Pembroke	89.814	10.186
COUNTY OF PRINCE EDWARD			Petawawa	91.119	8.881
			Radcliffe	82.607	17.393
<u>Town</u>			Raglan	96.498	3.502
Picton	97.244	2.756	Rolph, Buchanan, Wylie and McKay	90.765	9.235
<u>Villages</u>			Ross	98.473	1.527
Bloomfield	99.234	0.766	Sebastopol	91.262	8.738
Wellington	98.860	1.140	Sherwood, Jones and Burns		
				81.598	18.402
<u>Townships</u>			South Algona	93.677	6.323
Ameliasburgh	96.420	3.580	Stafford	90.714	9.286
Athol	98.308	1.692	Westmeath	93.435	6.565
Hallowell	98.419	1.581	Wilberforce	95.034	4.966
Hillier	98.653	1.347			

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
COUNTY OF SIMCOE			Dalton	99.894	0.106
			Eldon	97.790	2.210
<u>Cities</u>			Emily	94.183	5.817
Barrie	95.573	4.427	Fenelon	98.422	1.578
Orillia	95.670	4.330	Laxton, Digby and Longford		
<u>Towns</u>				98.898	1.102
Amalgamated Municipalities of			Manvers	97.912	2.088
Alliston, Beeton, Tecumseth and			Mariposa	98.316	1.684
Tottenham			Ops	96.268	3.732
Bradford West Gwillimbury			Somerville	98.557	1.443
			Verulam	98.789	1.211
Collingwood	97.264	2.736	COUNTY OF WELLINGTON		
Innisfil	97.260	2.740	<u>City</u>		
Midland	93.063	6.937	Guelph	92.550	7.450
Penetanguishene	90.124	9.876	<u>Towns</u>		
Stayner	98.269	1.731	Fergus	97.226	2.774
Wasaga Beach	95.359	4.641	Harriston	99.332	0.668
<u>Villages</u>			Mount Forest	95.247	4.753
Coldwater	98.392	1.608	Palmerston	98.971	1.029
Creemore	98.652	1.348	<u>Villages</u>		
Elmvale	95.877	4.123	Arthur	93.298	6.702
Port McNicoll	94.907	5.093	Clifford	99.176	0.824
Victoria Harbour			Drayton	98.582	1.418
	92.399	7.601	Elora	95.618	4.382
<u>Townships</u>			Erin	97.001	2.999
Adjala	92.064	7.936	<u>Townships</u>		
Essa	95.867	4.133	Arthur	94.382	5.618
Flos	93.459	6.541	Eramosa	96.690	3.310
Mara	95.690	4.310	Erin	97.237	2.763
Matchedash	97.972	2.028	Guelph	92.432	7.568
Medonte	97.552	2.448	Maryborough	97.336	2.664
Nottawasaga	98.007	1.993	Minto	97.669	2.331
Orillia	96.880	3.120	Nichol	95.794	4.206
Oro	98.003	1.997	Peel	98.032	1.968
Rama	97.450	2.550	Pilkington	95.742	4.258
Sunnidale	95.133	4.867	Puslinch	95.464	4.536
Tay	95.153	4.847	West Garafraxa	97.330	2.670
Tiny	92.674	7.326	West Luther	96.397	3.603
Tosorontio	95.809	4.191	UNITED COUNTIES OF LEEDS AND		
Vespra	96.294	3.706	GRENVILLE		
COUNTY OF VICTORIA					
<u>Town</u>			<u>City</u>		
Lindsay	96.219	3.781	Brockville	95.038	4.962
<u>Villages</u>			<u>Separated Towns</u>		
Bobcaygeon	99.133	0.867	Gananoque	93.736	6.264
Fenelon Falls	99.201	0.799	Prescott	92.582	7.418
Omeme	98.885	1.115	<u>Town</u>		
Sturgeon Point	98.175	1.825	Kemptville	94.879	5.121
Woodville	99.488	0.512	<u>Villages</u>		
<u>Townships</u>			Athens	98.991	1.009
Bexley	98.088	1.912	Cardinal	98.051	1.949
Carden	97.908	2.092			

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
Merrickville	97.413	2.587	UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY		
Newboro'	97.485	2.515			
Westport	91.028	8.972			
<u>Townships</u>			<u>City</u>		
Augusta	96.723	3.277	Cornwall	81.041	18.959
Bastard and South Burgess			<u>Town</u>		
	98.446	1.554	Alexandria	31.309	68.691
Edwardsburgh	96.484	3.516	<u>Villages</u>		
Elizabethtown	97.283	2.717	Chesterville	93.029	6.971
Front of Escott	98.350	1.650	Finch	95.238	4.762
Front of Leeds and Lansdowne			Iroquois	95.316	4.684
96.208	3.792		Lancaster	83.236	16.764
Front of Yonge	97.687	2.313	Maxville	93.026	6.974
Kitley	94.792	5.208	Morrisburg	95.822	4.178
North Crosby	93.274	6.726	Winchester	97.957	2.043
Oxford (on Rideau)			<u>Townships</u>		
	94.815	5.185	Charlottenburgh	85.539	14.461
Rear of Leeds and Lansdowne			Cornwall	85.298	14.702
	98.496	1.504	Finch	84.605	15.395
Rear of Yonge and Escott			Kenyon	85.985	14.015
	98.810	1.190	Lancaster	85.646	14.354
South Crosby	99.297	0.703	Lochiel	84.180	15.820
South Elmsley	96.067	3.933	Matilda	96.973	3.027
South Gower	94.746	5.254	Mountain	97.548	2.452
Wolford	98.950	1.050	Osnabruck	94.749	5.251
			Roxborough	88.021	11.979
			Williamsburgh	96.812	3.188
UNITED COUNTIES OF PRESCOTT AND RUSSELL			Winchester	92.741	7.259
<u>Towns</u>			DISTRICT OF ALGOMA		
Hawkesbury	68.998	31.002	<u>Cities</u>		
Rockland	44.717	55.283	Elliot Lake	87.782	12.218
Vankleek Hill	72.734	27.266	Sault Ste. Marie	87.414	12.586
<u>Villages</u>			<u>Towns</u>		
Alfred	53.385	46.615	Blind River	84.297	15.703
Casselman	63.808	36.192	Bruce Mines	100.000	0.000
L'Orignal	46.110	53.890	Thessalon	100.000	0.000
Plantagenet	71.727	28.273	<u>Villages</u>		
Saint Isidore	68.024	31.976	Hilton Beach	100.000	0.000
<u>Townships</u>			Iron Bridge	98.163	1.837
Alfred	66.760	33.240	<u>Townships</u>		
Caledonia	68.482	31.518	Day and Bright Additional		
Cambridge	73.264	26.736		99.040	0.960
Clarence	60.456	39.544	Dubreuilville	73.958	26.042
East Hawkesbury	53.134	46.866	Hilton	100.000	0.000
Longueuil	44.905	55.095	Hornepayne	93.481	6.519
North Plantagenet			Jocelyn	100.000	0.000
	70.834	29.166	Johnson	99.986	0.014
Russell	75.227	24.773	Laird	99.994	0.006
South Plantagenet			Macdonald, Meredith and Aberdeen Additional		
	74.023	25.977		100.000	0.000
West Hawkesbury	83.198	16.802	Michipicoten	89.328	10.672

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
Plummer Additional			Red Lake	93.907	6.093
	100.000	0.000	Sioux Narrows	97.675	2.325
Prince	91.604	8.396			
St. Joseph	100.000	0.000			
Shedden	87.187	12.813			
			DISTRICT OF MANITOULIN		
Tarbutt and Tarbutt Additional			<u>Towns</u>		
	99.960	0.040	Gore Bay	100.000	0.000
The North Shore	90.592	9.408	Little Current	98.498	1.502
Thessalon	100.000	0.000	<u>Townships</u>		
Thompson	96.316	3.684	Assiginack	100.000	0.000
White River	85.836	14.164	Barrie Island	100.000	0.000
			Billings	100.000	0.000
DISTRICT OF COCHRANE			Burpee	100.000	0.000
<u>City</u>			Carnarvon	100.000	0.000
Timmins	78.266	21.734	Cockburn Island		
<u>Towns</u>				100.000	0.000
Cochrane	83.541	16.459	Gordon	100.000	0.000
Hearst	72.648	27.352	Howland	99.978	0.022
Iroquois Falls	83.385	16.615	Rutherford and George Island		
Kapuskasig	77.933	22.067		83.733	16.267
Smooth Rock Falls			Sandfield	100.000	0.000
	34.055	65.945	Tehkummah	100.000	0.000
<u>Townships</u>					
Black River-Matheson			DISTRICT OF NIPISSING		
	89.736	10.264	<u>City</u>		
Fauquier-Strickland			North Bay	88.192	11.808
	68.969	31.031	<u>Towns</u>		
Glackmeyer	85.544	14.456	Cache Bay	76.208	23.792
Mattice-Val Cote			Kearney	98.044	1.956
	72.392	27.608	Mattawa	78.208	21.792
Moonbeam	74.178	25.822	Sturgeon Falls	73.072	26.928
Moosonee Development			<u>Townships</u>		
Area Board	93.162	6.838	Airy	83.005	16.995
Opasatika	71.037	28.963	Bonfield	84.992	15.008
Val Rita-Harty	76.694	23.306	Caldwell	69.938	30.062
			Calvin	95.403	4.597
DISTRICT OF KENORA			Chisholm	90.092	9.908
<u>Towns</u>			East Ferris	86.703	13.297
Dryden	95.748	4.252	Field	75.240	24.760
Jaffray and Melick			Mattawan	91.768	8.232
	92.578	7.422	Papineau	83.120	16.880
Keewatin	94.789	5.211	Springer	75.408	24.592
Kenora	93.083	6.917	Temagami	100.000	0.000
Sioux Lookout	91.360	8.640	<u>Improvement District</u>		
<u>Townships</u>			Cameron	89.391	10.609
Barclay	95.910	4.090			
Ear Falls	100.000	0.000	DISTRICT OF PARRY SOUND		
Golden	97.631	2.369	<u>Towns</u>		
Ignace	97.553	2.447	Kearney	98.044	1.956
Machin	99.347	0.653	Parry Sound	98.821	1.179
Pickle Lake	100.000	0.000			

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
Powassan	96.230	3.770	Webbwood	92.522	7.478
Trout Creek	94.190	5.810	<u>Townships</u>		
<u>Villages</u>			Baldwin	86.236	13.764
Burk's Falls	100.000	0.000	Casimir, Jennings and Appleby		
Magnetawan	100.000	0.000		77.555	22.445
Rosseau	100.000	0.000	Chapleau	83.550	16.450
South River	100.000	0.000	Cosby, Mason and Martland		
Sundridge	100.000	0.000		77.222	22.778
<u>Townships</u>			Hagar	79.726	20.274
Armour	100.000	0.000	Nairn	96.191	3.809
Carling	100.000	0.000	Ratter and Dunnet		
Chapman	99.988	0.012		78.728	21.272
Christie	100.000	0.000	The Spanish River		
Foley	100.000	0.000		91.800	8.200
Hagerman	100.000	0.000			
Humphrey	100.000	0.000	DISTRICT OF THUNDER BAY		
Joly	100.000	0.000	<u>City</u>		
Machar	100.000	0.000	Thunder Bay	86.184	13.816
McDougall	100.000	0.000	<u>Towns</u>		
McKellar	100.000	0.000	Geraldton	89.382	10.618
McMurrich	100.000	0.000	Longlac	72.990	27.010
Nipissing	97.026	2.974	Marathon	93.790	6.210
North Himsworth	95.400	4.600	<u>Townships</u>		
Perry	98.860	1.140	Beardmore	96.146	3.854
Ryerson	100.000	0.000	Conmee	96.769	3.231
South Himsworth	96.785	3.215	Dorion	100.000	0.000
Strong	100.000	0.000	Gillies	98.297	1.703
The Archipelago	100.000	0.000	Manitouwadge	88.040	11.960
			Nakina	93.217	6.783
DISTRICT OF RAINY RIVER			Neebing	97.266	2.734
<u>Towns</u>			Nipigon	91.115	8.885
Fort Frances	93.314	6.686	O'Connor	96.729	3.271
Rainy River	97.190	2.810	Oliver	96.003	3.997
<u>Townships</u>			Paipoonge	74.323	25.677
Alberton	96.584	3.416	Red Rock	90.658	9.342
Atikokan	94.128	5.872	Schreiber	83.028	16.972
Atwood	98.396	1.604	Shuniah	95.463	4.537
Blue	100.000	0.000	Terrace Bay	88.524	11.476
Chapple	99.972	0.028			
Dilke	89.496	10.504	DISTRICT OF TIMISKAMING		
Emo	99.072	0.928	<u>Towns</u>		
La Vallee	99.074	0.926	Charlton	95.433	4.567
McCrosson and Tovell	100.000	0.000	Cobalt	84.576	15.424
			Englehart	96.051	3.949
Morley	93.919	6.081	Haileybury	69.250	30.750
Morson	100.000	0.000	Kirkland Lake	86.839	13.161
Worthington	98.386	1.614	Latchford	92.200	7.800
			New Liskeard	87.190	12.810
DISTRICT OF SUDBURY			<u>Village</u>		
<u>Towns</u>			Thornloe	78.656	21.344
Espanola	86.024	13.976	<u>Townships</u>		
Massey	89.265	10.735	Armstrong	72.052	27.948

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
Brethour	89.618	10.382	DISTRICT OF MANITOULIN		
Casey	74.129	25.871			
Chamberlain	97.208	2.792	<u>Board of Education</u>		
Coleman	91.688	8.312	Manitoulin	100.000	0.000
Dack	97.617	2.383			
Dymond	83.128	16.872	DISTRICT OF NIPISSING		
Evanturel	90.076	9.924			
Harley	90.170	9.830	<u>Boards of Education</u>		
Harris	89.940	10.060	Timiskaming	100.000	0.000
Hilliard	91.987	8.013	Nipissing	86.212	13.788
Hudson	95.014	4.986			
James	91.925	8.075	<u>District School Area Board</u>		
Kerns	95.794	4.206	Murchison and Lyell		
Larder Lake	87.947	12.053		93.414	6.586
McGarry	84.318	15.682			
<u>Improvement Districts</u>			DISTRICT OF PARRY SOUND		
Gauthier	95.500	4.500	<u>Boards of Education</u>		
Matachewan	91.230	8.770	East Parry Sound		
				100.000	0.000
DISTRICT OF ALGOMA			West Parry Sound		
				99.653	0.347
<u>Boards of Education</u>					
Central Algoma	100.000	0.000	DISTRICT OF RAINY RIVER		
Michipicoten	91.167	8.833			
North Shore	91.657	8.343	<u>Boards of Education</u>		
Sault Ste. Marie	95.884	4.116	Atikokan	100.000	0.000
			Fort Frances-Rainy River		
				99.490	0.510
DISTRICT OF COCHRANE			<u>District School Area Board</u>		
			Mine Centre	100.000	0.000
<u>Boards of Education</u>					
Cochrane-Iroquois Falls			DISTRICT OF SUDBURY		
Black River Matheson			<u>Boards of Education</u>		
	90.003	9.997	Espanola	95.128	4.872
Hearst	79.873	20.127	Chapleau	81.894	18.106
Kapusking	79.326	20.674	Sudbury	87.329	12.671
<u>District School Area Boards</u>			<u>District School Area Boards</u>		
Canfield	100.000	0.000	Asquith - Garvey		
Smoky Falls	95.192	4.808		100.000	0.000
James Bay Lowlands			Foleyet	80.263	19.737
	100.000	0.000	Gogama	78.058	21.942
			Missarenda	100.000	0.000
DISTRICT OF KENORA					
<u>Boards of Education</u>			DISTRICT OF THUNDER BAY		
Dryden	98.133	1.867	<u>Boards of Education</u>		
Kenora	99.158	0.842	Lake Superior	95.155	4.845
Red Lake	99.240	0.760	Lakehead	98.541	1.459
<u>District School Area Boards</u>			Nipigon-Red Rock	98.756	1.244
Slate Falls	100.000	0.000	Geraldton	94.690	5.310
Sturgeon Lake	100.000	0.000	<u>District School Area Boards</u>		
Summer Beaver	100.000	0.000	Caramat	100.000	0.000
Umfreville	100.000	0.000	Collins	100.000	0.000

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
Kashabowie	100.000	0.000	DISTRICT OF TIMISKAMING		
Kilkenny	100.000	0.000			
Northern	100.000	0.000	<u>Boards of Education</u>		
Upsala	100.000	0.000	Kirkland Lake	95.042	4.958
			Timiskaming	97.756	2.244

O. Reg. 68/91, Sched. 1.

Schedule 2

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 4</u>	<u>Column 5</u>
<u>Cities</u>				
Gloucester	86.158	7.502	1.098	5.242
Kanata	92.382	6.815	0.147	0.656
Nepean	91.525	7.481	0.251	0.743
Ottawa	90.428	6.396	0.652	2.524
Vanier	76.273	10.710	1.505	11.512
<u>Village</u>				
Rockcliffe Park	95.202	3.163	0.577	1.058
<u>Townships</u>				
Cumberland	84.577	7.238	1.167	7.018
Goulbourn	93.628	5.826	0.158	0.388
Osgoode	91.206	7.819	0.140	0.835
Rideau	94.022	5.634	0.123	0.221
West Carleton	94.300	5.186	0.130	0.384

O. Reg. 68/91, Sched. 2.

Schedule 3

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
MUNICIPALITY OF METROPOLITAN TORONTO			Pickering	94.618	5.382
			Whitby	92.918	7.082
			<u>Townships</u>		
<u>Cities</u>			Brock	98.496	1.504
Etobicoke	90.575	9.425	Scugog	97.432	2.568
North York	92.539	7.461	Uxbridge	97.754	2.246
Scarborough	93.486	6.514	REGIONAL MUNICIPALITY OF HALDIMAND-NORFOLK		
Toronto	94.798	5.202			
York	90.524	9.476	<u>Cities</u>		
<u>Borough</u>			Nanticoke		
East York	94.905	5.095	Norfolk Board of Education		
REGIONAL MUNICIPALITY OF DURHAM				94.886	5.114
<u>City</u>			Haldimand Board of Education		
Oshawa	93.078	6.922		96.991	3.009
<u>Towns</u>			<u>Towns</u>		
Ajax	94.632	5.368	Dunnville	96.900	3.100
Newcastle	96.103	3.897	Haldimand	95.789	4.211

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
Simcoe	95.005	4.995	REGIONAL MUNICIPALITY OF SUDBURY		
<u>Townships</u>					
Delhi	88.535	11.465	<u>City</u>		
Norfolk	89.260	10.740	Sudbury	84.006	15.994
			<u>Towns</u>		
REGIONAL MUNICIPALITY OF HALTON			Capreol	83.131	16.869
<u>City</u>			Nickel Centre	81.938	18.062
Burlington	93.764	6.236	Onaping Falls	88.592	11.408
<u>Towns</u>			Rayside-Balfour	75.360	24.640
Halton Hills	95.437	4.563	Valley East	78.828	21.172
Milton	93.862	6.138	Walden	89.951	10.049
Oakville	93.232	6.768	REGIONAL MUNICIPALITY OF WATERLOO		
REGIONAL MUNICIPALITY OF HAMILTON			<u>Cities</u>		
WENTWORTH			Cambridge	91.680	8.320
<u>Cities</u>			Kitchener	91.617	8.383
Hamilton	91.086	8.914	Waterloo	93.658	6.342
Stoney Creek	88.130	11.870	<u>Townships</u>		
<u>Towns</u>			North Dumfries	95.072	4.928
Ancaster	93.253	6.747	Wellesley	93.642	6.358
Dundas	94.906	5.094	Wilmot	95.785	4.215
Flamborough	95.504	4.496	Woolwich	95.536	4.464
<u>Township</u>			REGIONAL MUNICIPALITY OF YORK		
Glanbrook	94.654	5.346	<u>City</u>		
REGIONAL MUNICIPALITY OF NIAGARA			Vaughan	84.989	15.011
<u>Cities</u>			<u>Towns</u>		
Niagara Falls	89.276	10.724	Aurora	94.657	5.343
Port Colborne	90.534	9.466	East Gwillimbury	95.686	4.314
St. Catharines	92.198	7.802	Georgina	96.751	3.249
Thorold	86.518	13.482	Markham	92.896	7.104
Welland	89.422	10.578	Newmarket	94.318	5.682
<u>Towns</u>			Richmond Hill	92.614	7.386
Fort Erie	91.500	8.500	Whitchurch-Stouffville	95.626	4.374
Grimsby	93.211	6.789	<u>Township</u>		
Lincoln	95.406	4.594	King	93.266	6.734
Niagara-on-the-Lake	95.160	4.840	DISTRICT MUNICIPALITY OF MUSKOKA		
Pelham	93.417	6.583	<u>Towns</u>		
<u>Townships</u>			Bracebridge	98.146	1.854
Wainfleet	93.073	6.927	Gravenhurst	98.102	1.898
West Lincoln	95.874	4.126	Huntsville	97.955	2.045
REGIONAL MUNICIPALITY OF PEEL			<u>Townships</u>		
<u>Cities</u>			Georgian Bay		
Brampton	91.493	8.507	Muskoka Board of Education	96.334	3.666
Mississauga	90.830	9.170	West Parry Sound Board of		
<u>Town</u>			Education	99.271	0.729
Caledon	93.657	6.343	Lake of Bays	98.375	1.625
			Muskoka Lakes	98.771	1.229

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
COUNTY OF BRANT			<u>Village</u>		
			Shelburne	98.902	1.098
<u>City</u>			<u>Townships</u>		
Brantford	93.745	6.255	Amaranth	96.792	3.208
<u>Town</u>			East Garafraxa	97.660	2.340
Paris	96.446	3.554	East Luther	98.687	1.313
<u>Townships</u>			Melancthon	99.587	0.413
Brantford	94.739	5.261	Mono	97.760	2.240
Burford	91.805	8.195	Mulmur	99.091	0.909
Oakland	91.686	8.314			
Onondaga	98.202	1.798	COUNTY OF ELGIN		
South Dumfries	97.513	2.487	<u>City</u>		
COUNTY OF BRUCE			St. Thomas	95.296	4.704
<u>Towns</u>			<u>Town</u>		
Chesley	99.313	0.687	Aylmer	96.079	3.921
Kincardine	96.190	3.810	<u>Villages</u>		
Port Elgin	95.214	4.786	Belmont	97.409	2.591
Southampton	96.345	3.655	Dutton	98.859	1.141
Walkerton	86.318	13.682	Port Burwell	98.625	1.375
Warton	99.115	0.885	Port Stanley	97.758	2.242
<u>Villages</u>			Rodney	95.459	4.541
Hepworth	99.282	0.718	Springfield	98.876	1.124
Lion's Head	99.248	0.752	Vienna	98.786	1.214
Lucknow	99.291	0.709	West Lorne	89.227	10.773
Mildmay	79.712	20.288	<u>Townships</u>		
Paisley	99.356	0.644	Aldborough	93.049	6.951
Ripley	98.765	1.235	Bayham	95.483	4.517
Tara	99.094	0.906	Dunwich	96.774	3.226
Teeswater	89.190	10.810	Malahide	93.566	6.434
Tiverton	97.165	2.835	South Dorchester	97.446	2.554
<u>Townships</u>			Southwold	97.087	2.913
Albemarle	98.472	1.528	Yarmouth	96.480	3.520
Amabel	97.270	2.730	COUNTY OF ESSEX		
Arran	99.034	0.966	<u>City</u>		
Brant	92.578	7.422	Windsor	87.592	12.408
Bruce	98.292	1.708	<u>Towns</u>		
Carrick	82.282	17.718	Amherstburg	84.269	15.731
Culross	87.379	12.621	Belle River	77.542	22.458
Eastnor	98.438	1.562	Essex	91.104	8.896
Elderslie	99.469	0.531	Harrow	91.632	8.368
Greenock	85.444	14.556	Kingsville	93.173	6.827
Huron	96.626	3.374	Leamington	88.579	11.421
Kincardine	97.226	2.774	Tecumseh	81.865	18.135
Kinloss	99.237	0.763	<u>Village</u>		
Lindsay	98.990	1.010	St. Clair Beach	83.682	16.318
St. Edmunds	98.073	1.927	<u>Townships</u>		
Saugeen	96.619	3.381	Anderdon	84.238	15.762
COUNTY OF DUFFERIN			Colchester North		
<u>Towns</u>				88.398	11.602
Grand Valley	98.882	1.118	Colchester South		
Orangeville	96.670	3.330		92.374	7.626

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
Gosfield North	94.684	5.316	Collingwood	98.175	1.825
Gosfield South	91.042	8.958	Derby	98.685	1.315
Maidstone	83.841	16.159	Egremont	97.770	2.230
Malden	87.495	12.505	Euphrasia	98.812	1.188
Mersea	92.324	7.676	Glenelg	97.544	2.456
Pelee	100.000	0.000	Holland	98.413	1.587
Rochester	79.706	20.294	Keppel	98.576	1.424
Sandwich South	82.040	17.960	Normanby	97.009	2.991
Sandwich West	84.412	15.588	Osprey	99.546	0.454
Tilbury North	79.332	20.668	Proton	97.504	2.496
Tilbury West	91.827	8.173	St. Vincent	99.122	0.878
			Sarawak	97.717	2.283
			Sullivan	99.051	0.949
			Sydenham	97.922	2.078

COUNTY OF FRONTENAC

City

Kingston 93.984 6.016

Townships

Barrie 98.547 1.453

Bedford 96.734 3.266

Clarendon and Miller 99.996 0.004

Hinchinbrooke 97.867 2.133

Howe Island 86.232 13.768

Kennebec 99.940 0.060

Kingston 92.993 7.007

Loughborough 97.157 2.843

Olden 99.478 0.522

Oso 99.440 0.560

Palmerston and North and South Canonto 99.992 0.008

Pittsburgh 94.502 5.498

Portland 97.522 2.478

Storrington 97.238 2.762

Wolfe Island 86.378 13.622

COUNTY OF GREY

City

Owen Sound 97.164 2.836

Towns

Durham 98.079 1.921

Hanover 94.379 5.621

Meaford 99.364 0.636

Thornbury 98.757 1.243

Villages

Chatsworth 99.412 0.588

Dundalk 99.890 0.110

Flesherton 98.707 1.293

Markdale 98.568 1.432

Neustadt 97.086 2.914

Shallow Lake 97.843 2.157

Townships

Artemesia 98.652 1.348

Bentinck 96.968 3.032

COUNTY OF HALIBURTON

Townships

Anson, Hindon and Minden 100.000 0.000

Bicroft 97.202 2.798

Cardiff 98.425 1.575

Dysart, Bruton, Clyde, Dudley, Eyre, Guilford, Harburn, Harcourt and Havelock 100.000 0.000

Glamorgan 100.000 0.000

Lutterworth 100.000 0.000

Monmouth 100.000 0.000

Sherborne, McClintock, Livingstone Lawrence and Nightingale 100.000 0.000

Snowdon 100.000 0.000

Stanhope 100.000 0.000

COUNTY OF HASTINGS

Cities

Belleville 94.203 5.797

Trenton 92.724 7.276

Town

Deseronto 98.103 1.897

Villages

Bancroft 96.172 3.828

Deloro 89.797 10.203

Frankford 96.324 3.676

Madoc 99.043 0.957

Marmora 94.348 5.652

Stirling 98.511 1.489

Tweed 90.869 9.131

Townships

Bangor, Wicklow and McClure 96.097 3.903

Carlow 99.785 0.215

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
Dungannon	98.218	1.782	COUNTY OF KENT		
Elzevir and Grimsthorpe	96.284	3.716	<u>City</u>		
Faraday	97.318	2.682	Chatham	90.328	9.672
Herschel	96.418	3.582	<u>Towns</u>		
Hungerford	91.666	8.334	Blenheim	93.889	6.111
Huntingdon	97.885	2.115	Bothwell	95.033	4.967
Limerick	98.994	1.006	Dresden	97.591	2.409
Madoc	98.574	1.426	Ridgetown	94.942	5.058
Marmora and Lake	95.526	4.474	Tilbury	82.674	17.326
Mayo	99.960	0.040	Wallaceburg	88.623	11.377
Monteagle	97.209	2.791	<u>Villages</u>		
Rawdon	98.983	1.017	Erieau	97.754	2.246
Sidney	95.869	4.131	Erie Beach	94.407	5.593
Thurlow	96.715	3.285	Highgate	98.581	1.419
Tudor and Cashel	99.767	0.233	Thamesville	96.044	3.956
Tyendinaga	91.098	8.902	Wheatley	98.783	1.217
Wollaston	98.568	1.432	<u>Townships</u>		
COUNTY OF HURON			Camden	95.673	4.327
<u>Towns</u>			Chatham	88.544	11.456
Clinton	97.229	2.771	Dover	82.669	17.331
Exeter	96.706	3.294	Harwich	91.046	8.954
Goderich	95.336	4.664	Howard	91.590	8.410
Seaforth	92.685	7.315	Orford	94.977	5.023
Wingham	97.221	2.779	Raleigh	93.744	6.256
<u>Villages</u>			Romney	98.436	1.564
Bayfield	97.676	2.324	Tilbury East	91.660	8.340
Blyth	99.082	0.918	Zone	89.385	10.615
Brussels	99.484	0.516	COUNTY OF LAMBTON		
Hensall	96.191	3.809	<u>City</u>		
Zurich	87.205	12.795	Sarnia - Clearwater		
<u>Townships</u>				91.209	8.791
Ashfield	93.787	6.213	<u>Towns</u>		
Colborne	97.160	2.840	Forest	96.289	3.711
East Wawanosh	98.264	1.736	Petrolia	94.789	5.211
Goderich	97.155	2.845	<u>Villages</u>		
Grey	96.560	3.440	Alvinston	100.000	0.000
Hay	91.932	8.068	Arkona	96.361	3.639
Howick	99.406	0.594	Grand Bend	97.498	2.502
Hullett	96.852	3.148	Oil Springs	98.555	1.445
McKillop	88.938	11.062	Point Edward	95.009	4.991
Morris	97.727	2.273	Thedford	99.219	0.781
Stanley	95.331	4.669	Watford	95.618	4.382
Stephen	93.702	6.298	Wyoming	93.381	6.619
Tuckersmith	93.674	6.326	<u>Townships</u>		
Turnberry	96.814	3.186	Bosanquet	93.532	6.468
Usborne	97.135	2.865	Brooke	95.958	4.042
West Wawanosh	95.894	4.106	Dawn	99.671	0.329
			Enniskillen	95.846	4.154
			Euphemia	95.768	4.232
			Moore	94.937	5.063
			Plympton	94.161	5.839

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
Sombra	92.732	7.268	COUNTY OF MIDDLESEX		
Warwick	87.440	12.560			
COUNTY OF LANARK			<u>City</u>		
			London	94.337	5.663
			<u>Towns</u>		
<u>Separated Town</u>			Parkhill	94.917	5.083
Smiths Falls	94.746	5.254	Strathroy	92.394	7.606
<u>Towns</u>			<u>Villages</u>		
Almonte	93.928	6.072	Ailsa Craig	99.169	0.831
Carleton Place	95.336	4.664	Glencoe	97.303	2.697
Perth	94.023	5.977	Lucan	96.140	3.860
<u>Village</u>			Newbury	96.380	3.620
Lanark	95.852	4.148	Wardsville	95.766	4.234
<u>Townships</u>			<u>Townships</u>		
Bathurst	97.480	2.520	Adelaide	89.874	10.126
Beckwith	96.189	3.811	Biddulph	91.271	8.729
Darling	98.348	1.652	Caradoc	94.418	5.582
Drummond	96.926	3.074	Delaware	94.221	5.779
Lanark	97.355	2.645	East Williams	92.876	7.124
Lavant, Dalhousie and North Sherbrooke	97.086	2.914	Ekfrid	96.242	3.758
			Lobo	96.405	3.595
Montague	96.592	3.408	London	95.860	4.140
North Burgess	93.977	6.023	McGillivray	92.492	7.508
North Elmsley	96.157	3.843	Metcalfe	96.933	3.067
Pakenham	97.534	2.466	Mosa	96.402	3.598
Ramsay	95.693	4.307	North Dorchester	95.244	4.756
South Sherbrooke	98.102	1.898	West Nissouri	96.684	3.316
			West Williams	86.218	13.782
			Westminster	94.696	5.304
COUNTY OF LENNOX AND ADDINGTON			COUNTY OF NORTHUMBERLAND		
<u>Town</u>			<u>Towns</u>		
Napanee	96.529	3.471	Brighton	98.503	1.497
<u>Villages</u>			Campbellford	96.942	3.058
Bath	95.526	4.474	Cobourg	95.394	4.606
Newburgh	97.633	2.367	Port Hope	96.499	3.501
<u>Townships</u>			<u>Villages</u>		
Adolphustown	97.737	2.263	Colborne	97.684	2.316
Amherst Island	98.247	1.753	Hastings	94.760	5.240
Camden East	96.180	3.820	<u>Townships</u>		
Denbigh, Abinger and Ashby	100.000	0.000	Alnwick	98.065	1.935
Ernestown	95.284	4.716	Brighton	97.982	2.018
Kaladar, Anglesea and Effingham	99.117	0.883	Cramahe	98.384	1.616
North Fredericksburgh	97.482	2.518	Haldimand	95.434	4.566
Richmond	97.357	2.643	Hamilton	96.983	3.017
Sheffield	93.094	6.906	Hope	97.114	2.886
South Fredericksburgh	98.615	1.385	Murray	95.526	4.474
			Percy	97.971	2.029
			Seymour	97.496	2.504

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
COUNTY OF OXFORD			Burleigh and Anstruther		
				99.356	0.644
<u>City</u>			Cavan	98.047	1.953
Woodstock	95.772	4.228	Chandos	98.561	1.439
<u>Towns</u>			Douro	90.815	9.185
Ingersoll	96.972	3.028	Dummer	98.107	1.893
Tillsonburg	93.264	6.736	Ennismore	92.978	7.022
<u>Townships</u>			Galway and Cavendish		
Blandford-Blenheim				98.610	1.390
	96.947	3.053	Harvey	97.764	2.236
East Zorra-Tavistock			North Monaghan	96.705	3.295
	99.061	0.939	Otonabee	94.512	5.488
Norwich	96.348	3.652	Smith	96.810	3.190
South-West Oxford			South Monaghan	97.912	2.088
	96.628	3.372	COUNTY OF PRINCE EDWARD		
Zorra	96.424	3.576	<u>Town</u>		
COUNTY OF PERTH			Picton	97.244	2.756
<u>City</u>			<u>Villages</u>		
Stratford	94.934	5.066	Bloomfield	99.234	0.766
<u>Separated Town</u>			Wellington	98.860	1.140
St. Marys	95.784	4.216	<u>Townships</u>		
<u>Towns</u>			Ameliasburgh	96.420	3.580
Listowel	98.829	1.171	Athol	98.308	1.692
Mitchell	97.007	2.993	Hallowell	98.419	1.581
<u>Village</u>			Hillier	98.653	1.347
Milverton	99.192	0.808	North Marysburgh	98.033	1.967
<u>Townships</u>			Sophiasburgh	99.088	0.912
Blanshard	96.642	3.358	South Marysburgh	98.804	1.196
Downie	93.489	6.511	COUNTY OF RENFREW		
Ellice	89.500	10.500	<u>City</u>		
Elma	98.628	1.372	Pembroke	87.520	12.480
Fullarton	97.522	2.478	<u>Towns</u>		
Hibbert	88.695	11.305	Arnrior	91.054	8.946
Logan	92.740	7.260	Deep River	92.739	7.261
Mornington	96.269	3.731	Renfrew	87.340	12.660
North Easthope	98.296	1.704	<u>Villages</u>		
South Easthope	96.299	3.701	Barry's Bay	74.320	25.680
Wallace	98.892	1.108	Beachburg	97.739	2.261
COUNTY OF PETERBOROUGH			Braeside	91.288	8.712
<u>City</u>			Chalk River	85.176	14.824
Peterborough	93.968	6.032	Cobden	98.640	1.360
<u>Villages</u>			Eganville	91.326	8.674
Havelock	98.911	1.089	Killaloe	84.258	15.742
Lakefield	97.334	2.666	Petawawa	89.714	10.286
Millbrook	98.830	1.170	<u>Townships</u>		
Norwood	97.656	2.344	Admaston	90.776	9.224
<u>Townships</u>			Alice and Fraser		
Asphodel	94.809	5.191		93.619	6.381
Belmont and Methuen			Bagot and Blithfield		
	98.364	1.636		92.468	7.532
			Bromley	87.633	12.367

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
Brougham	89.593	10.407	Mara	95.690	4.310
Brudenell and Lyndoch	90.468	9.532	Matchedash	97.972	2.028
Grattan	89.056	10.944	Medonte	97.552	2.448
Griffith and Matawatchan	91.091	8.909	Nottawasaga	98.007	1.993
Hagarty and Richards	85.312	14.688	Orillia	96.880	3.120
Head, Clara and Maria	90.226	9.774	Oro	98.003	1.997
Horton	91.887	8.113	Rama	97.450	2.550
McNab	94.027	5.973	Sunnidale	95.133	4.867
North Algona	92.972	7.028	Tay	95.153	4.847
Pembroke	89.814	10.186	Tiny	92.674	7.326
Petawawa	91.119	8.881	Tosorontio	95.809	4.191
Radcliffe	82.607	17.393	Vespra	96.294	3.706
Raglan	96.498	3.502	COUNTY OF VICTORIA		
Rolph, Buchanan, Wylie and McKay	90.765	9.235	<u>Town</u>		
Ross	98.473	1.527	Lindsay	96.219	3.781
Sebastopol	91.262	8.738	<u>Villages</u>		
Sherwood, Jones and Burns	81.598	18.402	Bobcaygeon	99.133	0.867
South Algona	93.677	6.323	Fenelon Falls	99.201	0.799
Stafford	90.714	9.286	Omeme	98.885	1.115
Westmeath	93.435	6.565	Sturgeon Point	98.175	1.825
Wilberforce	95.034	4.966	Woodville	99.488	0.512
COUNTY OF SIMCOE			<u>Townships</u>		
<u>Cities</u>			Bexley	98.088	1.912
Barrie	95.573	4.427	Carden	97.908	2.092
Orillia	95.670	4.330	Dalton	99.894	0.106
<u>Towns</u>			Eldon	97.790	2.210
Amalgamated Municipalities of			Emily	94.183	5.817
Alliston, Beeton, Tecumseth and			Fenelon	98.422	1.578
Tottenham	94.939	5.061	Laxton, Digby and Longford	98.898	1.102
Bradford West Gwillimbury	91.609	8.391	Manvers	97.912	2.088
Collingwood	97.264	2.736	Mariposa	98.316	1.684
Innisfil	97.260	2.740	Ops	96.268	3.732
Midland	93.063	6.937	Somerville	98.557	1.443
Penetanguishene	90.124	9.876	Verulam	98.789	1.211
Stayner	98.269	1.731	COUNTY OF WELLINGTON		
Wasaga Beach	95.359	4.641	<u>City</u>		
<u>Villages</u>			Guelph	92.599	7.401
Coldwater	98.392	1.608	<u>Towns</u>		
Creemore	98.652	1.348	Fergus	97.226	2.774
Elmvalle	95.877	4.123	Harriston	99.332	0.668
Port McNicoll	94.907	5.093	Mount Forest	95.247	4.753
Victoria Harbour	92.399	7.601	Palmerston	98.971	1.029
<u>Townships</u>			<u>Villages</u>		
Adjala	92.064	7.936	Arthur	93.298	6.702
Essa	95.867	4.133	Clifford	99.176	0.824
Flos	93.459	6.541	Drayton	98.582	1.418
			Elora	95.618	4.382
			Erin	97.001	2.999
			<u>Townships</u>		
			Arthur	94.382	5.618

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
Eramosa	96.690	3.310	UNITED COUNTIES OF PRESCOTT AND		
Erin	97.237	2.763	RUSSELL		
Guelph	92.432	7.568			
Maryborough	97.336	2.664	<u>Towns</u>		
Minto	97.669	2.331	Hawkesbury	74.527	25.473
Nichol	95.794	4.206	Rockland	73.812	26.188
Peel	98.032	1.968	Vankleek Hill	87.086	12.914
Pilkington	95.742	4.258	<u>Villages</u>		
Puslinch	95.902	4.098	Alfred	69.084	30.916
West Garafraxa	97.330	2.670	Casselman	69.641	30.359
West Luther	96.397	3.603	L'Orignal	73.916	26.084
			Plantagenet	71.727	28.273
			Saint Isidore	68.024	31.976
UNITED COUNTIES OF LEEDS AND			<u>Townships</u>		
GRENVILLE			Alfred	73.576	26.424
			Caledonia	78.888	21.112
			Cambridge	73.264	26.736
<u>City</u>			Clarence	72.633	27.367
Brockville	95.038	4.962	East Hawkesbury	80.201	19.799
<u>Separated Towns</u>			Longueuil	77.902	22.098
Gananoque	93.736	6.264	North Plantagenet		
Prescott	92.582	7.418		74.862	25.138
<u>Town</u>			Russell	77.860	22.140
Kemptville	94.879	5.121	South Plantagenet		
<u>Villages</u>				74.023	25.977
Athens	98.991	1.009	West Hawkesbury	83.198	16.802
Cardinal	98.051	1.949			
Merrickville	97.413	2.587	UNITED COUNTIES OF STORMONT,		
Newboro'	97.485	2.515	DUNDAS AND GLENGARRY		
Westport	91.028	8.972			
<u>Townships</u>			<u>City</u>		
Augusta	96.723	3.277	Cornwall	81.280	18.720
Bastard and South Burgess			<u>Town</u>		
	98.446	1.554	Alexandria	74.255	25.745
Edwardsburgh	96.484	3.516	<u>Villages</u>		
Elizabethtown	97.283	2.717	Chesterville	93.029	6.971
Front of Escott	98.350	1.650	Finch	95.238	4.762
Front of Leeds and Lansdowne			Iroquois	95.316	4.684
	96.208	3.792	Lancaster	83.236	16.764
Front of Yonge	97.687	2.313	Maxville	93.026	6.974
Kitley	94.792	5.208	Morrisburg	95.822	4.178
North Crosby	93.274	6.726	Winchester	97.957	2.043
Oxford (on Rideau)			<u>Townships</u>		
	94.815	5.185	Charlottenburgh	85.539	14.461
Rear of Leeds and Lansdowne			Cornwall	85.298	14.702
	98.496	1.504	Finch	84.605	15.395
Rear of Yonge and Escott			Kenyon	85.985	14.015
	98.810	1.190	Lancaster	85.646	14.354
South Crosby	99.297	0.703	Lochiel	84.180	15.820
South Elmsley	96.067	3.933	Matilda	96.973	3.027
South Gower	94.746	5.254	Mountain	97.548	2.452
Wolford	98.950	1.050	Osnabruck	94.749	5.251
			Roxborough	88.021	11.979
			Williamsburgh	96.812	3.188
			Winchester	92.741	7.259

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
DISTRICT OF ALGOMA			Mattice-Val Cote		
			72.392		27.608
<u>Cities</u>			Moonbeam	74.178	25.822
Elliot Lake	87.782	1 2.218	Moosonee Development Area Board		
Sault Ste. Marie	87.441	12.559		93.162	6.838
<u>Towns</u>			Opasatika	71.037	28.963
Blind River	84.297	15.703	Val Rita-Harty	76.694	23.306
Bruce Mines	100.000	0.000	DISTRICT OF KENORA		
Thessalon	100.000	0.000	<u>Towns</u>		
<u>Villages</u>			Dryden	95.748	4.252
Hilton Beach	100.000	0.000	Jaffray and Melick		
Iron Bridge	98.163	1.837		92.578	7.422
<u>Townships</u>			Keewatin	94.789	5.211
Day and Bright Additional			Kenora	93.083	6.917
	99.040	0.960	Sioux Lookout	91.360	8.640
Dubreuilville	73.958	26.042	<u>Townships</u>		
Hilton	100.000	0.000	Barclay	95.910	4.090
Hornepayne	93.481	6.519	Ear Falls	100.000	0.000
Jocelyn	100.000	0.000	Golden	97.631	2.369
Johnson	99.986	0.014	Ignace	97.553	2.447
Laird	99.994	0.006	Machin	99.347	0.653
Macdonald, Meredith and Aberdeen Additional			Pickle Lake	100.000	0.000
	100.000	0.000	Red Lake	93.907	6.093
Michipicoten	89.328	10.672	Sioux Narrows	97.675	2.325
Plummer Additional			DISTRICT OF MANITOULIN		
	100.000	0.000	<u>Towns</u>		
Prince	91.604	8.396	Gore Bay	100.000	0.000
St. Joseph	100.00	0.000	Little Current	98.498	1.502
Shedden	87.187	12.813	<u>Townships</u>		
Tarbutt and Tarbutt Additional			Assiginack	100.000	0.000
	99.960	0.040	Barrie Island	100.000	0.000
The North Shore	90.592	9.408	Billings	100.000	0.000
Thessalon	100.000	0.000	Burpee	100.000	0.000
Thompson	96.316	3.684	Carnarvon	100.000	0.000
White River	85.836	14.164	Cockburn Island	100.000	0.000
DISTRICT OF COCHRANE			Gordon	100.000	0.000
<u>City</u>			Howland	99.978	0.022
Timmins	83.400	16.600	Rutherford and George Island		
<u>Towns</u>				83.733	16.267
Cochrane	83.541	16.459	Sandfield	100.000	0.000
Hearst	72.648	27.352	Tehkummah	100.000	0.000
Iroquois Falls	83.385	16.615	DISTRICT OF NIPISSING		
Kapuskasing	77.933	22.067	<u>City</u>		
Smooth Rock Falls			North Bay	88.192	11.808
	74.014	25.986	<u>Towns</u>		
<u>Townships</u>			Cache Bay	76.208	23.792
Black River-Matheson			Kearney	98.044	1.956
	89.736	10.264	Mattawa	78.208	21.792
Fauquier-Strickland			Sturgeon Falls	73.072	26.928
	68.969	31.031			
Glackmeyer	85.544	14.456			

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
<u>Townships</u>			Rainy River	97.190	2.810
Airy	83.005	16.995	<u>Townships</u>		
Bonfield	84.992	15.008	Alberton	96.584	3.416
Caldwell	71.056	28.944	Atikokan	94.128	5.872
Calvin	95.403	4.597	Atwood	98.396	1.604
Chisholm	90.092	9.908	Blue	100.000	0.000
East Ferris	86.703	13.297	Chapple	99.972	0.028
Field	75.240	24.760	Dilke	89.496	10.504
Mattawan	91.768	8.232	Emo	99.072	0.928
Papineau	83.120	16.880	La Vallee	99.074	0.926
Springer	75.408	24.592	McCrosson and Tovell		
Temagami	100.000	0.000		100.000	0.000
<u>Improvement District</u>			Morley	93.919	6.081
Cameron	89.391	10.609	Morson	100.000	0.000
			Worthington	98.386	1.614

DISTRICT OF PARRY SOUND

<u>Towns</u>		
Kearney	98.044	1.956
Parry Sound	98.821	1.179
Powassan	96.230	3.770
Trout Creek	94.190	5.810
<u>Villages</u>		
Burk's Falls	100.000	0.000
Magnetawan	100.000	0.000
Rosseau	100.000	0.000
South River	100.000	0.000
Sundridge	100.000	0.000
<u>Townships</u>		
Armour	100.000	0.000
Carling	100.000	0.000
Chapman	99.988	0.012
Christie	100.000	0.000
Foley	100.000	0.000
Hagerman	100.000	0.000
Humphrey	100.000	0.000
Joly	100.000	0.000
Machar	100.000	0.000
McDougall	100.000	0.000
McKellar	100.000	0.000
McMurrich	100.000	0.000
Nipissing	97.026	2.974
North Himsworth	95.400	4.600
Perry	98.860	1.140
Ryerson	100.000	0.000
South Himsworth	96.785	3.215
Strong	100.000	0.000
The Archipelago	100.000	0.000

DISTRICT OF RAINY RIVER

<u>Towns</u>		
Fort Frances	93.314	6.686

DISTRICT OF SUDBURY

<u>Towns</u>		
Espanola	86.024	13.976
Massey	89.265	10.735
Webbwood	92.522	7.478
<u>Townships</u>		
Baldwin	86.236	13.764
Casimir, Jennings and Appleby		
	77.555	22.445
Chapleau	83.550	16.450
Cosby, Mason and Martland		
	77.222	22.778
Hagar	79.726	20.274
Nairn	96.191	3.809
Ratter and Dunnet		
	78.728	21.272
The Spanish River		
	91.800	8.200

DISTRICT OF THUNDER BAY

<u>City</u>		
Thunder Bay	89.973	10.027
<u>Towns</u>		
Geraldton	89.382	10.618
Longlac	80.910	19.090
Marathon	93.790	6.210
<u>Townships</u>		
Beardmore	96.146	3.854
Conmee	96.769	3.231
Dorion	100.000	0.000
Gillies	98.297	1.703
Manitouwadge	88.040	11.960
Nakina	93.217	6.783
Neebing	97.266	2.734
Nipigon	91.115	8.885
O'Connor	96.003	3.997

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
Oliver	96.729	3.271
Paipoonge	94.474	5.526
Red Rock	90.658	9.342
Schreiber	83.028	16.972
Shuniah	95.463	4.537
Terrace Bay	88.552	11.448

DISTRICT OF TIMISKAMING

Towns

Charlton	95.433	4.567
Cobalt	84.576	15.424
Englehart	96.051	3.949
Haileybury	85.073	14.927
Kirkland Lake	88.720	11.280
Latchford	92.200	7.800
New Liskeard	87.190	12.810

Village

Thornloe	78.656	21.344
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Townships

Armstrong	72.052	27.948
Brethour	89.618	10.382
Casey	74.129	25.871
Chamberlain	97.208	2.792
Coleman	91.688	8.312
Dack	97.617	2.383
Dymond	83.128	16.872
Evanturel	90.076	9.924
Harley	90.170	9.830
Harris	89.940	10.060
Hilliard	91.987	8.013
Hudson	95.014	4.986
James	91.925	8.075
Kerns	95.794	4.206
Larder Lake	87.947	12.053
McGarry	84.318	15.682

Improvement Districts

Gauthier	95.500	4.500
Matachewan	91.230	8.770

11/91

O. Reg. 68/91, Sched. 3.

**ONTARIO MINERAL EXPLORATION
PROGRAM ACT, 1989**

O. Reg. 69/91.

Ontario Mineral Incentive Program.
Made—February 28th, 1991.
Filed—March 1st, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 558/89
MADE UNDER THE**

ONTARIO MINERAL EXPLORATION PROGRAM ACT, 1989

1.—(1) Subsection 3 (3) of Ontario Regulation 558/89, as amended by section 4 of Ontario Regulation 533/90, is revoked and the following substituted:

(3) Subject to subsection (4), the Minister may designate a project if the applicant has the legal right to perform exploration or industrial minerals predevelopment or both on the land on which the project is to be carried out. O. Reg. 69/91, s. 1 (1).

(2) Subsection 3 (4) of the Regulation, as remade by section 4 of Ontario Regulation 533/90, is revoked and the following substituted:

- (4) A project is not eligible to be designated if,
- the applicant or an affiliated corporation or associate of the applicant was liable for taxes under the *Mining Tax Act* in respect of the most recently completed taxation year preceding the date of the application; or
 - the Minister has set aside an amount equal to the maximum grant level referred to in section 8 in anticipation of grants to the applicant or an affiliated corporation or associate of the applicant or any combination of them in respect of other designated projects. O. Reg. 69/91, s. 1 (2).

2.—(1) Subsection 4 (2) of the Regulation is revoked and the following substituted:

(2) The Minister may pay a grant to a person whose project has been designated. O. Reg. 69/91, s. 2 (1).

(2) Subsection 4 (2a) of the Regulation, as made by section 5 of Ontario Regulation 533/90, is revoked and the following substituted:

- (2a) The amount of the grant shall be equal to,
- 30 per cent of the eligible expenses incurred by the person in respect of the project during the period described in subsection (2b); or
 - if the project is in an area that includes a community where an economic downturn exists or may reasonably be expected to occur, 50 per cent of the eligible expenses incurred by the person in respect of the project during the period described in subsection (2b).
- (2b) The period referred to in subsection (2a) is,
- if the application for project designation under subsection 3 (2) is made on or before the 30th day of April in a year, the period from the 1st day of January to the 31st day of December in that year; or
 - if the application for project designation under subsection 3 (2) is made after the 30th day of April in a year, the period from the date of the application for project designation to the 31st day of December in that year. O. Reg. 69/91, s. 2 (2).

3. Paragraph 7 of subclause 5 (1) (a) (viii) of the Regulation, as remade by section 6 of Ontario Regulation 533/90, is revoked and the following substituted:

7. pre-production environmental studies;

4. Section 8 of the Regulation, as remade by section 9 of Ontario Regulation 533/90, is revoked and the following substituted:

8. A person may have more than one designated project, but no person is eligible to receive total grants in excess of \$300,000 for eligible expenses incurred within a calendar year in respect of all designated projects. O. Reg. 69/91, s. 4.

11/91

Publications under the Regulations Act

Publications en vertu de la Loi sur les règlements

1991—03—23

LAND TRANSFER TAX ACT

O. Reg. 70/91.

Exemptions From Tax

Under Section 2a of the Act.

Made—February 28th, 1991.

Filed—March 4th, 1991.

REGULATION MADE UNDER THE LAND TRANSFER TAX ACT

EXEMPTIONS FROM TAX UNDER SECTION 2a OF THE ACT

1.—(1) Section 2a of the Act does not apply to a disposition of a beneficial interest in land,

- (a) if the disposition is of one or more units in a class of units described in paragraphs 4801 (a) and (b) of chapter 945 of the Consolidated Regulations of Canada, 1978 (the *Income Tax Regulations*); and
- (b) if the beneficial interest is an interest in a mutual fund trust within the meaning of subsection 132 (6) of the *Income Tax Act* (Canada).

(2) Section 2a of the Act does not apply to a disposition of a beneficial interest in land if it is an interest of a partner in a partnership and if the person acquiring the interest would not be entitled, during the fiscal year of the partnership in which the disposition was made, to a percentage of the profits of the partnership, assuming the partnership had profits to distribute, that exceeds by more than 5 per cent the percentage of the profits to which the person would have been entitled at the beginning of the fiscal year. O. Reg. 70/91, s. 1.

2.—(1) Section 2a of the Act does not apply to a disposition of a beneficial interest in land if the corporation acquiring the beneficial interest provides confirmation to the satisfaction of the Minister that the requirements described in this section are met.

(2) The disposition must occur as part of a reorganization in the course of which a dividend is received by a corporation.

(3) The amount of the dividend would be deemed under subsection 55 (2) of the *Income Tax Act* (Canada), but for the application of paragraph 55 (3) (b) of that Act, not to be a dividend received by the corporation, but to be proceeds of disposition of a share or shares or to be a gain of the corporation from the disposition of a capital property.

(4) The disposition of the beneficial interest in land must constitute a transfer of property of a particular corporation to one or more corporations for the purposes of the application of paragraph 55 (3) (b) of the *Income Tax Act* (Canada) in respect of the dividend referred to in subsection (2). O. Reg. 70/91, s. 2.

3. A disposition of a beneficial interest in land is exempt from tax imposed by virtue of section 2a of the Act,

- (a) if the disposition is made to or in trust for a pipe line company and if any person who tendered for registration a conveyance evidencing the disposition would be exempt from tax by reason of section 2 of Regulation 560 of Revised Regulations of Ontario, 1980;

- (b) if the disposition is made to the spouse, former spouse, child or dependant of the person making the disposition and if any person who tendered for registration a conveyance evidencing the disposition would be exempt from tax by reason of section 1 or 2 of Regulation 562 of Revised Regulations of Ontario, 1980;

- (c) if the disposition is made to a family farm corporation or family business corporation as described in Regulation 563 of Revised Regulations of Ontario, 1980 and if all requirements and conditions imposed by that Regulation have been met which would entitle a person to register a conveyance evidencing the disposition without payment of tax or to receive a refund of tax paid under section 2 of that Regulation on such a registration; or

- (d) if the disposition is of a surface rights option, mineral rights to land, or both, and if any person who tendered for registration a conveyance evidencing the disposition would be exempt from tax by reason of section 2 of Regulation 571 of Revised Regulations of Ontario, 1980. O. Reg. 70/91, s. 3.

4. This Regulation shall be deemed to have come into force on the 19th day of July, 1989.

12/91

LAND TRANSFER TAX ACT

O. Reg. 71/91.

Exemption-Disposition of Land

By Employee to Employer.

Made—February 28th, 1991.

Filed—March 4th, 1991.

REGULATION MADE UNDER THE LAND TRANSFER TAX ACT

EXEMPTION – DISPOSITION OF LAND BY EMPLOYEE TO EMPLOYER

1.—(1) Section 2a of the Act does not apply to a disposition of a beneficial interest in land from an employee or an employee's spouse or both to an employer if the following requirements are met:

1. The disposition is not evidenced by a registered conveyance.
2. The employee or the employee's spouse or both held both the beneficial ownership and registered title to the land immediately before the disposition.
3. The disposition is made under the terms of an employee relocation plan offered by the employer to the employee as part of the employment package.
4. The employee or his or her spouse or both disposed of the land because the employee commenced working for the employer or was relocated by the employer to a new work location.
5. The land has situated on it only a single family residence and the employee ordinarily resided in that residence until the employee moved to the new work location.

6. The employee's new residence is at least 40 kilometres closer to the new work location than the land disposed of by the employee, his or her spouse or both.
7. The employer paid any profit from the sale of the land to the employee, the employee's spouse or both.
8. The employer disposes of the beneficial interest in the land or conveys the land to a person not associated with the employer and tax is paid on that disposition or conveyance, all within 180 days of the disposition from the employee or the employee's spouse or both to the employer.

(2) An employer who meets all of the requirements in subsection (1) except those of paragraph 8 may delay filing a return under section 4 of the Act and paying tax and any interest for up to thirty days after the time period set out in that paragraph.

(3) In this section,

"employee relocation plan" means a plan that is offered by an employer to assist new or transferred employees of the employer in relocating to a new work location and that includes provisions that require the employer,

- (a) to purchase the land of the employee, his or her spouse, or both at an appraised fair market value if the land is not sold within a specified time period after the employee commences to work for the new employer or is advised of the relocation, and
- (b) upon the conveyance or disposition of the land, to pay the profits from such conveyance or disposition to the employee, his or her spouse, or both;

"employer" includes a person administering an employee relocation plan on behalf of the employer;

"profits" means the proceeds of the sale of the land less all amounts paid to the employee, his or her spouse, or both under the employee relocation plan with respect to the land, plus any expenses incurred by the employer in maintaining or selling the land during the time the employer held beneficial ownership in it. O. Reg. 71/91, s. 1.

2. This Regulation shall be deemed to have come into force on the 19th day of July, 1989.

12/91

INCOME TAX ACT

O. Reg. 72/91.

Ontario Tax Reduction.

Made—February 28th, 1991.

Filed—March 4th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 569/89 MADE UNDER THE INCOME TAX ACT

1. Section 2 of Ontario Regulation 569/89 is revoked and the following substituted:

2.—(1) For the purposes of section 6 of the Act, the individual's personal amount for the 1990 and subsequent taxation years is determined by the formula,

$$\$167 + A + B$$

where,

"A" is the total of \$200 for each child who is a dependant of the individual and who was under 18 years of age at any time in the taxation year, and

"B" is the total of \$200 for each infirm or disabled dependant of the individual.

(2) An individual may only include a calculation under "A" in the formula under subsection (1) with respect to a particular dependant child if the individual is deducting an amount under paragraph 118 (1) (b) of the Federal Act ("the equivalent to married deduction") or is deducting more than 50 per cent of the maximum amount allowed in respect of the child under subparagraph 118 (1) (d) (i) of the Federal Act ("the dependant child deduction").

(3) An individual may only include a calculation under "B" in the formula under subsection (1) with respect to a particular infirm or disabled dependant if the following requirements are met:

1. Only one individual may include an amount under "B" in the formula with respect to a particular dependant.
2. If an individual has included an amount under "A" in the formula, only that individual may make a calculation in respect of that child under "B".
3. The individual must be deducting more than 50 per cent of the amount deductible under subsection 118.3 (2) of the Federal Act ("the mentally or physically impaired dependant deduction") if the dependant,
 - i. is a child in respect of whom the individual is including an amount under "A" in the formula, or
 - ii. is a child who is under 18 years of age at any time in the year and in respect of whom no deduction is made either by the individual or by another supporting individual under the equivalent to married deduction or the dependant child deduction.
4. If the dependant is 18 years of age or older on the 31st day of December of the previous taxation year, the individual must be making a deduction under the mentally or physically impaired dependant deduction or must be entitled to deduct an amount under the equivalent to married deduction or subparagraph 118 (1) (d) (ii) of the Federal Act ("adult infirm dependant deduction").
5. If the dependant is a spouse of the individual, the dependant must be entitled to claim a credit under subsection 118.3 (1) of the Federal Act in respect of a mental or physical impairment and must be transferring some portion of the credit to the individual under section 118.8 of that Act.

(4) If two individuals each deduct 50 per cent of the amount deductible under the mentally or physically impaired dependant deduction or the dependant child deduction in respect of the same dependant, only the individual having the lower income, as calculated under clause 7 (1) (b) of the Act, may include an amount under "A" or "B" of the formula in subsection (1) in respect of that dependant. O. Reg. 72/91, s. 1.

2. Subsection 3 (2) of the Regulation is revoked and the following substituted:

(2) Section 2, as remade by Ontario Regulation 72/91, shall be deemed to have come into force on the 1st day of January, 1990.

3. This Regulation shall be deemed to have come into force on the 1st day of January, 1990.

12/91

PLANNING ACT, 1983

O. Reg. 73/91.

Restricted Areas—District of Sudbury,
Territorial District of Sudbury.
Made—February 28th, 1991.
Filed—March 4th, 1991.

REGULATION TO AMEND
ONTARIO REGULATION 834/81
MADE UNDER THE
PLANNING ACT, 1983

1. Schedule 1 to Ontario Regulation 834/81 is amended by adding the following section:

103.—(1) A pit may be made or established and buildings and structures accessory to it may be erected and used on the land described in subsection (2).

(2) Subsection (1) applies to that part of the south half of Lot 3, Concession VI, in the geographic Township of Dill, in the Territorial District of Sudbury, being part of Parcel 46229 S.E.S., described as follows:

Commencing at the southwest corner of Lot 3, Concession VI;

Thence on a bearing of north 0°19'10" west a distance of 605.9 metres more or less to the intersection with the southerly limit of the right-of-way of the Canadian Pacific Railway;

Thence continuing in a southeasterly direction along the southerly limit of that right-of-way to a point in the limit between Concession V and Concession VI distant 720 metres from the southwest corner of Lot 3;

Thence continuing westerly along the limit between Concession V and Concession VI on a bearing of south 89°29'10" west a distance of 720 metres more or less to the point of commencement.

PETER W. BOLES
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 28th day of February, 1991.

12/91

LIQUOR LICENCE ACT, 1990

O. Reg. 74/91.

Licences to Sell Liquor.
Made—February 28th, 1991.
Filed—March 5th, 1991.

REGULATION TO AMEND
ONTARIO REGULATION 546/90
MADE UNDER THE
LIQUOR LICENCE ACT, 1990

1. Ontario Regulation 546/90 is amended by adding the following section:

20a.—(1) In this section, "operating day" means the period during which liquor may be sold and served in accordance with subsections 25 (1) and (2), beginning at 11 a.m. or noon and ending at 1 a.m. or 2 a.m. on the following day.

(2) Despite subsection 20 (5), the licence holder may, not more than once during an operating day, make a temporary increase in the price of liquor or of a drink containing liquor.

(3) A price that is temporarily increased under subsection (2) shall remain at the increased level until the end of the operating day and shall return to its previous level at the beginning of the next operating day. O. Reg. 74/91, s. 1.

2. Section 53 of the Regulation is amended by adding the following subsection:

(3) If there is a temporary increase in the price of liquor or of a drink containing liquor under section 20a, the licence holder shall give notice by posting notices specifying the increase and when it takes effect in locations visible to persons on the premises. O. Reg. 74/91, s. 2.

12/91

HIGHWAY TRAFFIC ACT

O. Reg. 75/91.

Speed Limits.
Made—March 1st, 1991.
Filed—March 5th, 1991.

REGULATION TO AMEND
REGULATION 490 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
HIGHWAY TRAFFIC ACT

1.—(1) Paragraph 6 of Part 3 of Schedule 38 to Regulation 490 of Revised Regulations of Ontario, 1980 is revoked and the following substituted:

6. That part of the King's Highway known as No. 28 in the Village of Bancroft in the County of Hastings lying between a point situate 5 metres measured northerly from its intersection with the centre line of the roadway known as Monck Road and a point situate 110 metres measured southerly from its intersection with the centre line of the roadway known as Valleyview Drive.

(2) Part 5 of Schedule 38, as remade by section 8 of Ontario Regulation 687/84 and amended by section 8 of Ontario Regulation 320/86, section 3 of Ontario Regulation 580/88, section 4 of Ontario Regulation 278/90 and section 2 of Ontario Regulation 426/90, is further amended by adding the following paragraph:

7. That part of the King's Highway known as No. 28 in the Village of Bancroft in the County of Hastings lying between a point situate 110 metres measured southerly from its intersection with the centre line of the roadway known as Valleyview Drive and a point situate 440 metres measured northerly from the said intersection.

2.—(1) Part 4 of Schedule 112 to the Regulation is amended by adding the following paragraph:

1. That part of the King's Highway known as No. 118 in the Township of Dysart, Bruton, Clyde, Dudley, Eyre, Guilford, Harburn, Harcourt and Havelock in the County of Haliburton beginning at a point situate 150 metres measured northerly from its intersection with the centre line of the roadway known as Bayshore Acres Road and extending northerly for a distance of 800 metres.

(2) Paragraph 4 of Part 5 of Schedule 112, as made by section 5 of Ontario Regulation 758/82, is revoked and the following substituted:

- Haliburton — 4. That part of the King's Highway known as No. 118 in the Township of Dysart, Bruton, Clyde, Dudley, Eyre, Guilford, Harburn, Harcourt and Havelock in the County of Haliburton lying between a point situate 845 metres measured northerly from its intersection with the northerly limit of the King's Highway known as No. 121 and a point situate 150 metres measured northerly from its intersection with the centre line of the roadway known as Bayshore Acres Road.
- Twp. of Dysart, Bruton, Clyde, Dudley, Eyre, Guilford, Harburn, Harcourt and Havelock

3. Part 4 of Schedule 113 to the Regulation, as amended by section 4 of Ontario Regulation 592/85, is further amended by adding the following paragraph:

- Haliburton — 2. That part of the King's Highway known as No. 121 in the Township of Dysart, Bruton, Clyde, Dudley, Eyre, Guilford, Harburn, Harcourt and Havelock in the County of Haliburton lying between a point situate 50 metres measured westerly from its intersection with the centre line of the roadway known as Peninsula Road and a point situate 990 metres measured westerly from its intersection with the westerly limit of the roadway known as Wallings Road.
- Twp. of Dysart, Bruton, Clyde, Dudley, Eyre, Guilford, Harburn, Harcourt and Havelock

ED PHILIP

Minister of Transportation

Dated at Toronto, this 1st day of March, 1991.

12/91

GENERAL WELFARE ASSISTANCE ACT

O. Reg. 76/91.

Indian Bands.

Made—February 28th, 1991.

Filed—March 5th, 1991.

REGULATION TO AMEND REGULATION 442 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GENERAL WELFARE ASSISTANCE ACT

1. The Schedule to Regulation 442 of Revised Regulations of Ontario, 1980 is amended by adding the following item:

104. Red Rock Band

12/91

DEVELOPMENT CORPORATIONS ACT

O. Reg. 77/91.

Approval of Loans and Guarantees.

Made—February 28th, 1991.

Filed—March 5th, 1991.

REGULATION MADE UNDER THE DEVELOPMENT CORPORATIONS ACT

APPROVAL OF LOANS AND GUARANTEES

1. A loan or a guarantee given for the payment of a loan under clause 12 (1) (a) or (b) of the Act that is in excess of \$1,000,000 may be made

only with the approval of the Lieutenant Governor in Council. O. Reg. 77/91, s. 1.

2. Ontario Regulation 738/88 is revoked.

12/91

CROP INSURANCE ACT (ONTARIO)

O. Reg. 78/91.

Crop Insurance Plan—Specialty Crops.

Made—December 5th, 1990.

Approved—February 28th, 1991.

Filed—March 5th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 313/81 MADE UNDER THE CROP INSURANCE ACT (ONTARIO)

1.—(1) Subsection 11 (5) of the Schedule to Ontario Regulation 313/81, as remade by section 4 of Ontario Regulation 266/83, is revoked and the following substituted:

(5) The premiums prescribed by this section include payments in respect of premiums made by the Province of Ontario and the Government of Canada under the *Crop Insurance Act* (Canada).

(2) The Table to section 11 of the Schedule, as remade by section 1 of Ontario Regulation 294/89, is revoked and the following substituted:

TABLE

Crop	Factor
1. Broccoli	26
2. Cabbage	10
3. Cauliflower	28
4. Celery	16
5. Lettuce	22
6. Parsnips	35
7. Strawberries	22
8. Sweet Corn	15
9. Tomatoes	20

(3) Subsection 15 (2) of the Schedule is revoked and the following substituted:

(2) The insured person shall be deemed to have agreed with the revision of the final acreage report made by the Commission under subsection (1) unless the insured person notifies the Commission in writing that he or she rejects the revision within ten days after the Commission notification is served on the insured person.

(2a) For the purposes of subsection (2), the Commission notification may be served by personal delivery or by mailing it to the insured person's last known address, in which case the notification shall be deemed to be served three days after it is mailed.

(4) Subsections 16 (2) and (3) of the Schedule are revoked and the following substituted:

(2) The Commission shall serve a copy of the final acreage report, if one is prepared, on the insured person either by personal delivery or by mailing it to the insured person's last known address.

(3) Every insured person shall pay the premium for the crop year in respect of which a final acreage report is prepared by the Commission within ten days after the insured person has been served with a copy of it.

(4) A report that is mailed shall be deemed to be served three days after it is mailed.

THE CROP INSURANCE COMMISSION OF ONTARIO:

WILLIAM JONGEJAN
Chairman

CATRINA CAUSI
Secretary

Dated at Toronto, this 5th day of December, 1990.

12/91

CROP INSURANCE ACT (ONTARIO)

O. Reg. 79/91.

Crop Insurance Plan—Hay and Pasture.

Made—December 5th, 1990.

Approved—February 28th, 1991.

Filed—March 6th, 1991.

REGULATION TO AMEND
REGULATION 210 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
CROP INSURANCE ACT (ONTARIO)

1. Subsection 11 (5) of the Schedule to Regulation 210 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 461/90, is revoked and the following substituted:

(5) The premium calculated in accordance with subsections (1), (2), (3) and (4) excludes payments in respect of premiums made by the Government of Canada and the Province of Ontario under the *Crop Insurance Act* (Canada).

THE CROP INSURANCE COMMISSION OF ONTARIO:

WILLIAM JONGEJAN
Chairman

CATRINA CAUSI
Secretary

Dated at Toronto, this 5th day of December, 1990.

12/91

GAME AND FISH ACT

O. Reg. 80/91.

Open Seasons—Black Bear.

Made—February 28th, 1991.

Filed—March 6th, 1991.

REGULATION TO AMEND
REGULATION 426 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
GAME AND FISH ACT

1. Subsections 4 (4) to (8) of Regulation 426 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 28/87, are revoked and the following substituted:

(4) Despite subsection (2), no person shall shoot or trap or attempt to shoot or trap a cub or a female black bear that is accompanied by a cub during any time when it is prohibited by subsections (5) or (6).

(5) It is prohibited in the wildlife management units set out in Column 1 of Items 1 to 5 of Schedule 1 during the period commencing with the 15th day of April and ending on the 15th day of June.

(6) It is prohibited in wildlife management units 25 and 26 during the period commencing with the 15th day of April and ending on the 30th day of June.

(7) Every person who has set a trap in a wildlife management unit described in subsections (5) or (6) shall release a cub or a female black bear accompanied by a cub that is caught in the trap during a period where trapping is prohibited under subsection (5) or (6).

(8) No person shall shoot or trap or attempt to shoot or trap,

(a) a black bear in a den; or

(b) a black bear on Crown land within 400 metres of a waste disposal site as defined in the *Environmental Protection Act*.

(9) No person shall use or be accompanied by a dog while hunting black bear in a wildlife management unit open for hunting black bear during the period beginning with the 16th day of May and ending with the 30th day of June in any year.

(10) Subsection (9) does not apply to residents who are entitled to hunt or trap black bear during the open season in wildlife management units 61 to 75 and 83. O. Reg. 80/91, s. 1.

12/91

GAME AND FISH ACT

O. Reg. 81/91.

Black Bear Management Areas.

Made—February 28th, 1991.

Filed—March 6th, 1991.

REGULATION TO AMEND
ONTARIO REGULATION 348/89
MADE UNDER THE
GAME AND FISH ACT

1.—(1) Item 7 of Schedule 1 to Ontario Regulation 348/89 is amended by striking out "21" in Column 1 and substituting "21A".

(2) Schedule 1 to the Regulation is amended by adding the following item:

23 21A RL-01C-23

2. Schedule 4 to the Regulation is amended by adding the following item:

49 39D RL-04-14

3.—(1) Item 76 of Schedule 5 to the Regulation is amended by inserting "49A" in Column 1.

(2) Item 78 of Schedule 5 is revoked.

(3) Item 106 of Schedule 5 is amended by striking out "49A" in Column 1.

(4) Item 107 of Schedule 5 is amended by inserting "39A" in Column 1.

(5) Schedule 5 to the Regulation is amended by adding the following item:

131 40C, 49D 1G-05-140

4. Schedule 7 to the Regulation is amended by adding the following item:

25 47A KE-07A-05

5.—(1) Item 20 of Schedule 8 to the Regulation is amended by striking out “38B” in Column I and substituting “47A”.

(2) Items 90 and 91 of Schedule 8 are amended by striking out “FF” in Column 2 and substituting “KE” in each case.

(3) Items 108 and 109 of Schedule 8 are revoked.

(4) Schedule 8 to the Regulation is amended by adding the following item:

112 48E KE-07B-112

6. Schedule 9 to the Regulation is amended by adding the following item:

57 48E KE-08-58

7.—(1) Items 36 and 37 of Schedule 16 to the Regulation are amended by striking out “58” in Column 1 and substituting “58A” in each case.

(2) Schedule 16 to the Regulation is amended by adding the following item:

42 58A TB-12B-43

8. Items 20, 21 and 26 of Schedule 17 to the Regulation are amended by striking out “59” in Column 1 and substituting “59A” in each case.

9.—(1) Items 3, 4 and 6 of Schedule 19 to the Regulation are amended by striking out “49B” in Column 1 and substituting “49D” in each case.

(2) Item 62 of Schedule 19 is amended by striking out “40B, 49B” in Column I and substituting “49D”.

(3) Schedule 19 to the Regulation is amended by adding the following item:

72 49D IG-15A-66

10. Schedule 22 to the Regulation is amended by adding the following items:

31 40D SL-16B-31
32 31A, 40D SL-16B-32
33 40D SL-16B-33
34 40D SL-16B-34

11.—(1) Schedule 25 to the Regulation is amended by adding “NG for Nipigon” under the heading “Abbreviations”.

(2) Schedule 25 is further amended by adding the following item:

16 42A NG-18A-21

12. Schedule 26 to the Regulation is amended by adding the following item:

32 51A NG-19-06

13. Schedule 28 to the Regulation is amended by adding the following item:

40 52C HE-21B-89

14.—(1) Item 16 of Schedule 31 to the Regulation is amended by striking out “53” in Column I and substituting “53B”.

(2) Item 18 of Schedule 31 is amended by striking out “53” in Column I and substituting “53A”.

15.—(1) Schedule 32 to the Regulation is amended by adding “HE for Hearst” under the heading “Abbreviations”.

(2) Schedule 32 is further amended by adding the following items:

2 36A MO-25-02
3 43A HE-25-06

16.—(1) Items 2, 3, 5, 8 and 11 of Schedule 33 to the Regulation are amended by striking out “45” in Column I and substituting “45A” in each case.

(2) Item 4 of Schedule 33 is revoked.

(3) Items 36, 58 and 64 of Schedule 33 are amended by striking out “54” in Column 1 and substituting “54A” in each case.

(4) Schedule 33 to the Regulation is amended by adding the following item:

68 54A CC-26-72

17.—(1) Item 3 of Schedule 34 to the Regulation is amended by striking out “54” in Column 1 and substituting “54A”.

(2) Item 12 of Schedule 34 is revoked.

(3) Item 18 of Schedule 34 is amended by striking out “63” in Column 1 and substituting “63A”.

18. Schedule 35 to the Regulation is amended by adding the following items:

46 68C TE-28-67
47 68C TE-28-68
48 68C TE-28-69

19.—(1) Item 3 of Schedule 36 to the Regulation is amended by striking out “63” in Column I and substituting “63B”.

(2) Schedule 36 to the Regulation is amended by adding the following item:

47 63B TI-29-04

20.—(1) Item 7 of Schedule 37 to the Regulation is amended by striking out “54, 63” in Column I and substituting “54A”.

(2) Item 8 of Schedule 37 is amended by striking out “54, 63” in Column I and substituting “63A”.

(3) Schedule 37 to the Regulation is amended by adding the following item:

34 63A CC-30-15

21. Schedule 38 to the Regulation is amended by adding the following item:

57 66D CP-31-34

22.—(1) Item 21 of Schedule 43 to the Regulation is amended by striking out “70A” in Column I and substituting “70D”.

(2) Schedule 43 to the Regulation is amended by adding the following item:

24 70D BL-36-24

23. Item 75 of Schedule 45 to the Regulation is revoked.

24.—(1) Item 56 of Schedule 47 to the Regulation is amended by striking out “72” in Column I and substituting “71D, 72A”.

(2) Schedule 47 to the Regulation is amended by adding the following item:

59 67A TE-40-69

25.—(1) Items 26 and 28 of Schedule 48 to the Regulation are revoked.

(2) Item 30 of Schedule 48 is amended by adding "71B" in Column 1.

26.—(1) Schedule 49 to the Regulation is amended by adding "BL for Blind River" under the heading "Abbreviations".

(2) Item 41 of Schedule 49 is revoked.

(3) Schedule 49 to the Regulation is further amended by adding the following items:

59 71C EP-42-60
60 70D BL-42-61

27. Item 15 of Schedule 51 to the Regulation is amended by adding "76A" in Column 1.

28.—(1) Item 7 of Schedule 52 to the Regulation is amended by adding "72" in Column 1.

(2) Item 8 of Schedule 52 is amended by adding "72" and "76F" in Column 1.

29. Item 9 of Schedule 54 to the Regulation is amended by striking out "76A" in Column 1 and substituting "76G".

30. Item 6 of Schedule 55 to the Regulation is revoked.

31.—(1) Schedule 56 to the Regulation is amended by adding "MD for Minden" under the heading "Abbreviations".

(2) Item 3 of Schedule 56 to the Regulation is revoked and the following substituted:

3 80B MD-53-03

32. Item 11 of Schedule 58 to the Regulation is amended by striking out "PE" in Column 2 and substituting "AP".

33.—(1) Items 5 and 6 of Schedule 61 to the Regulation are amended by striking out "77B" in Column 1 and substituting "77D" in each case.

(2) Item 7 of Schedule 61 is amended by adding "77B" in Column 1.

(3) Schedule 61 to the Regulation is amended by adding the following item:

15 77D BA-57-15

12/91

GAME AND FISH ACT

O. Reg. 82/91.

Fire-Arms—Aulneau Peninsula.

Made—February 28th, 1991.

Filed—March 6th, 1991.

REGULATION TO AMEND REGULATION 412 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GAME AND FISH ACT

1. Section 1 of Regulation 412 of Revised Regulations of Ontario, 1980, as amended by section 1 of Ontario Regulation 428/82, is further amended by striking out "Notwithstanding the provisions

of subsections 10 (2), (4), (5), (6), (7) and (8) of Regulation 420 of Revised Regulations of Ontario, 1980," in the first and second lines.

2. Subsection 2 (1) of the Regulation, as amended by section 2 of Ontario Regulation 428/82 and section 1 of Ontario Regulation 523/86, is further amended by striking out "Notwithstanding the provisions of subsections 10 (2), (4), (5), (6), (7) and (8) of Regulation 420 of Revised Regulations of Ontario, 1980," in the first and second lines.

3. This Regulation comes into force on the 1st day of January, 1991.

12/91

GAME AND FISH ACT

O. Reg. 83/91.

Hunting Licences.

Made—February 28th, 1991.

Filed—March 6th, 1991.

REGULATION TO AMEND REGULATION 420 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GAME AND FISH ACT

1.—(1) Subsection 10 (1) of Regulation 420 of Revised Regulations of Ontario, 1980, as amended by section 1 of Ontario Regulation 524/86, is revoked and the following substituted:

(1) The holder of a licence in Form 5 hunting in an area during an open season for black bear, deer or moose shall not possess or use,

(a) a rifle of greater calibre or projectile power than a .22-calibre rim-fire rifle; or

(b) shells loaded with ball or shot larger than number two shot. O. Reg. 83/91, s. 1 (1).

(2) Subsection 10 (2) of the Regulation is revoked.

(3) Subsection 10 (3) of the Regulation, as amended by section 1 of Ontario Regulation 524/86, is revoked.

(4) Subsection 10 (4) of the Regulation is revoked.

(5) Subsections 10 (5), (6), (7) and (8), as amended by section 1 of Ontario Regulation 524/86, are revoked.

2. Section 11a of the Regulation, as made by section 2 of Ontario Regulation 683/82, is revoked.

3. Section 14b of the Regulation, as made by section 1 of Ontario Regulation 84/86, is revoked.

4. Section 14c of the Regulation, as made by section 1 of Ontario Regulation 335/86, is revoked.

5. Section 16a of the Regulation, as remade by section 1 of Ontario Regulation 27/87 and amended by section 2 of Ontario Regulation 132/87, section 3 of Ontario Regulation 499/87, section 1 of Ontario Regulation 629/87, section 1 of Ontario Regulation 554/88 and section 1 of Ontario Regulation 261/89, is further amended by adding the following subsection:

(6a) No operator of a tourist establishment shall issue a certificate in Form 32 to a non-resident hunter to hunt black bear on private land that is within a black bear management area granted by the Ministry to another operator for black bear guiding or baiting services. O. Reg. 83/91, s. 5.

12/91

GAME AND FISH ACT

Schedule 5

O. Reg. 84/91.

Furs.

Made—February 28th, 1991.

Filed—March 6th, 1991.

HIMSWORTH CROWN GAME PRESERVE

In the geographic townships of Chisholm and East Ferris in the Territorial District of Nipissing and the geographic townships of North Himsworth and South Himsworth in the Territorial District of Parry Sound and described as follows:

Beginning at the intersection of the northerly limit of Lot 12 in Concession XVI in the geographic Township of South Himsworth with the easterly limit of the King's Highway No. 11;

THENCE northerly following the easterly limit of that highway to its intersection with the southerly limit of Lot 5 in Concession XXIII in the geographic Township of North Himsworth;

THENCE easterly along the last mentioned limit to the southwesterly angle of that lot;

THENCE northerly along the easterly limit of that lot to the easterly limit of the last mentioned highway;

THENCE northerly along the last mentioned limit to the southerly limit of Lake Nosbonsong Road in Lot 3 in Concession XXIV in the geographic Township of North Himsworth;

THENCE easterly and following the southerly limit of that road to its intersection with the westerly limit of the lands of the Canadian National Railways in Lot 28 in Concession V in the geographic Township of East Ferris;

THENCE southeasterly and southwesterly following the westerly limit of those lands to the easterly limit of Lot 11 in Concession XV in the geographic Township of South Himsworth;

THENCE northerly along the easterly limit of that lot to the north-easterly corner of it;

THENCE westerly along the northerly limit of Lot 11 to the north-westerly corner of it;

THENCE southerly along the westerly limit of that lot to the intersection with the westerly limit of the lands of the Canadian National Railways;

THENCE southwesterly along the westerly limit of those lands to the northerly limit of the road allowance between concessions XIV and XV;

THENCE westerly along the northerly limit of that road allowance to the intersection with the easterly limit of King's Highway No. 11;

THENCE northerly along the easterly limit of King's Highway No. 11 to the intersection with the westerly limit of Lot 12 in Concession XVI in the geographic Township of South Himsworth;

THENCE southerly along the westerly limit of that lot to the south-westerly corner of it;

THENCE easterly along the southerly limit of lots 12 and 11 in Concession XVI in the geographic Township of South Himsworth to the southeasterly corner of Lot 11;

THENCE northerly along the easterly limit of Lot 11 to the north-easterly corner of it;

THENCE westerly along the northerly limits of lots 11 and 12 to the place of beginning.

EXCEPT for that part of the Township of North Himsworth, being composed of all of Lot 5, Concession XX, and all of lots 3 and 4, Concession XXI, in that Township. O. Reg. 85/91, s. 1.

12/91

REGULATION TO AMEND REGULATION 415 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GAME AND FISH ACT

I. Subsection 18 (1) of Regulation 415 of Revised Regulations of Ontario, 1980, as remade by section I of Ontario Regulation 656/89, is revoked and the following substituted:

(1) The royalties for taking or shipping any fur-bearing animal or its pelt to a point outside Ontario or sending or having sent any fur-bearing animal or its pelt to a tanner or taxidermist to be tanned, plucked or treated are as follows:

Table with 2 columns: Animal Name and Royalty Amount. Includes Badger, Beaver, Bobcat, Coyote, Fisher, Fox (Arctic), Fox (Coloured), Fox (Grey), Lynx, Marten, Mink, Muskrat, Otter, Raccoon, Timber Wolf, Weasel, Wolverine.

O. Reg. 84/91, s. 1.

12/91

GAME AND FISH ACT

O. Reg. 85/91.

Crown Game Preserves.

Made—February 28th, 1991.

Filed—March 6th, 1991.

REGULATION TO AMEND REGULATION 409 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GAME AND FISH ACT

I. Schedule 5 of Appendix B to Regulation 409 of Revised Regulations of Ontario, 1980 is revoked and the following substituted:

EDUCATION ACT

O. Reg. 86/91.

General Legislative Grants, 1991.

Made—February 25th, 1991.

Approved—March 8th, 1991.

Filed—March 8th, 1991.

REGULATION MADE UNDER THE
EDUCATION ACT

GENERAL LEGISLATIVE GRANTS, 1991

Definitions

1. In this Regulation, the following definitions apply for a board for the year 1991,

“assessment” means the sum of,

- (a) the residential and farm assessment as defined in section 220 of the Act, and
- (b) the quotient obtained by dividing by 0.85 the commercial assessment as defined in section 220 of the Act,

that is rateable for the purposes of the boards;

“A.E.F. for grant purposes”, for a municipality or locality, means the assessment equalization factor provided by the Minister for this purpose;

“A.D.E.” means average daily enrolment calculated correct to two places of decimals under Ontario Regulation 89/91 (Calculation of Average Daily Enrolment);

“capital appurtenances” means,

- (a) school sites and additions and improvements thereto,
- (b) school buildings, including permanent fixtures thereof, and additions, alterations and renovations to such buildings and permanent fixtures,
- (c) buildings that are not school buildings, including permanent fixtures thereof, and additions, alterations and renovations to such buildings and permanent fixtures,
- (d) vehicles and watercraft used for the transportation of pupils, and replacements of such vehicles and watercraft, and
- (e) furniture and equipment and replacements thereof and library resource materials for the initial equipping of a library resource centre, but excluding therefrom items referred to in clause (d) and permanent fixtures of a building;

“capital element included in rent”, in respect of rental of computer equipment for instructional purposes and rental of accommodation and school sites, means the total rental revenue or rental expenditure, as the case may be, that is in excess of the cost of services that are included as part of the rental contract, except that in the case of rental of computer equipment or accommodation for instructional purposes, the capital element in rent cannot be less than the portion designated by the Minister for inclusion in the determination of the recognized extraordinary expenditure of the board;

“continuing education A.D.E. for grant purposes” means the sum of the portion of the A.D.E. calculated under section 3 of Ontario Regulation 89/91 (Calculation of Average Daily Enrolment) that is in respect of pupils enrolled in a program operated by the board in a course approved by the Minister,

- (a) established for adults for which credit is granted or in an

independent study course and, in the case of a separate school board other than a Roman Catholic school board, the course is in the intermediate division,

- (b) of basic literacy or basic numeracy for adults,
- (c) of citizenship and language instruction for persons admitted to Canada as permanent residents under the *Immigration Act* (Canada), or
- (d) of English or French as a second language for adults whose first language is neither English nor French,

and in the case of,

- (e) a course described in clause (a), except for a pupil enrolled in an independent study course, for French-speaking adults in which French is the language of instruction,
- (f) a course described in clause (b), where the instructors are employed by and paid by the board, or the course is provided under subsection 165a (2) of the Act,
- (g) a course described in clause (c) or (d), or
- (h) a course described in clause (a), except for a pupil enrolled in an independent study course, offered in a secondary school that has an enrolment of fewer than 120 pupils per grade and that is located in a territorial district more than 80 kilometres from all other secondary schools in the Province that have the same language of instruction,

where the number of pupils is fewer than fifteen, such number shall be increased by five or a lesser number, as the case requires, to a maximum of fifteen for the purpose of calculating the continuing education A.D.E. for grant purposes;

“current cost of operating” means total of all the current expenditure less the sum of,

- (a) current expenditure for,
 - (i) the capital element included in rent payable,
 - (ii) transportation of pupils and persons qualified to be resident pupils to and from a school, a facility referred to in subsection 166 (2) of the Act or a centre referred to in subsection 166 (3) thereof,
 - (iii) transportation of pupils from one school to another school or a facility referred to in subsection 166 (2) of the Act, where such transportation is of a kind that is eligible for approval by the Minister as R.E.E.,
 - (iv) board, lodging and weekly transportation of pupils under sections 78, 166, 258 and 261 of the Act,
 - (v) capital appurtenances referred to in clauses (a), (b), (c) and (d) of the definition “capital appurtenances”,
 - (vi) capital appurtenances referred to in clause (e) of the definition “capital appurtenances” that have not been designated by the board as ordinary expenditure,
 - (vii) debt charges,
 - (viii) tuition fees in respect of resident-external pupils of the board,
 - (ix) P.A.C. in respect of resident-external pupils of the board,
 - (x) relocation of portable classrooms,
 - (xi) restoration of destroyed and damaged capital appurtenances, and

- (xii) interest on short-term borrowings for the period between the date of issue and date of sale of debentures for the purchase of capital appurtenances,
- (b) the sum of,
 - (i) tax adjustments,
 - (ii) the costs of performing the duties of a municipal council in territory without municipal organization,
 - (iii) provision for a reserve for working funds,
 - (iv) provision for a reserve for tax reduction in 1992,
 - (v) allocation to reserve funds,
 - (vi) payments made under Ontario Regulation 90/91 (Payment Transfer Between Coterminous Boards),
- (c) current revenue from sources other than,
 - (i) legislative grants except payments under subsections 16 (2) and 17 (2), section 26, subsections 27 (1) and (4) and sections 29, 40 and 41,
 - (ii) taxes, payments in lieu of taxes and trailer fees,
 - (iii) tuition fees in respect of non-resident pupils of the board,
 - (iv) the P.A.C. in respect of non-resident pupils of the board,
 - (v) the capital element included in rent receivable,
 - (vi) disposal of capital appurtenances,
 - (vii) insurance proceeds in respect of capital appurtenances,
 - (viii) transfers from other funds,
 - (ix) transfers from a reserve for working funds,
 - (x) transfer from a reserve for tax reduction,
 - (xi) accrued interest on debentures sold at date of sale thereof,
 - (xii) interest earned on capital funds,
 - (xiii) reimbursements of expenditure for transportation of pupils including payments under sections 34 and 35,
 - (xiv) grants, except legislative grants, or other reimbursements for capital expenditure from the revenue fund,
 - (xv) donations directed in writing by the donor to the purchase of a capital appurtenance and so applied,
 - (xvi) payments received under Ontario Regulation 90/91 (Payment Transfer Between Coterminous Boards), and
 - (xvii) payments made under subsection 46 (3) of the *Ottawa-Carleton French-Language School Board Act, 1988*, and
- (d) the amount calculated under clause 28 (a);

"day school A.D.E. of non-resident pupils" means the portion of the A.D.E. calculated under section 2 of Ontario Regulation 89/91, (Calculation of Average Daily Enrolment) that is in respect of non-resident pupils of the board;

"day school A.D.E. of resident-internal pupils" means the portion of the

A.D.E. calculated under section 2 of Ontario Regulation 89/91, (Calculation of Average Daily Enrolment) that is in respect of resident-internal pupils of the board;

"day school A.D.E. of resident-external pupils" means the portion of the A.D.E. calculated under section 2 of Ontario Regulation 89/91, (Calculation of Average Daily Enrolment) that is in respect of resident-external pupils of the board;

"elementary school pupil" means a pupil who is enrolled in a school operated by,

- (a) a district school area board, a Protestant separate school board, a Roman Catholic separate school board other than a Roman Catholic school board, or
- (b) a board of education, a Roman Catholic school board or the public sector or the Roman Catholic sector of The Ottawa-Carleton French-language School Board for the purposes of receiving education in the primary division, junior division or first two years of the intermediate division;

"eligible sum for French as a first language" means,

- (a) in respect of elementary school pupils, the sum of,
 - (i) the product of \$291 and the enrolment for a program provided in a French-language instructional unit, and
 - (ii) where in 1991 the board establishes under section 258 of the Act a class in which French is the language of instruction in an elementary school where no such class was provided prior to the 2nd day of September, 1974 and such class is approved by the Minister for grant purposes,
 - (A) \$5,400 if the class established in 1991 is the first,
 - (B) \$3,240 if the class established in 1991 is the second,
 - (C) \$2,160 if the class established in 1991 is the third,
- (b) in respect of secondary school pupils, the sum of the products obtained by multiplying the enrolment for a program in a subject in a class established under section 261 of the Act in which French is the language of instruction, by the number of credits that may be granted to a pupil for the subject or by one in the case of a subject offered in a day school in a course for which no credit may be granted and for which a minimum of 110 hours has been scheduled and by,
 - (i) \$89 in the case of pupils enrolled in the intermediate division,
 - (ii) \$95 in the case of pupils enrolled in the senior division,

subject to the limitation that the maximum number of credits or courses for which no credit may be granted that may be taken into account for the purpose of this subparagraph in respect of any one pupil is five;

"eligible sum for French as a second language" means,

- (a) in respect of elementary school pupils, the sum of,
 - (i) the product of \$119 and the enrolment for a program in classes established for pupils whose first language is not French of an average of 20 or more minutes but less than 40 minutes per school day of instruction in French,
 - (ii) the product of \$229 and the enrolment for a program in classes established for pupils whose first language is not French of an average of 40 or more minutes but less than 60 minutes per school day of instruction in French,

- (iii) the product of \$260 and the enrolment for a program in classes established for pupils whose first language is not French of an average of 60 or more minutes but less than 150 minutes per school day of instruction in French, and
- (iv) the product of \$291 and the enrolment for a program in classes established for pupils whose first language is not French of an average of,
 - (A) 150 minutes or more per school day of instruction in French, for pupils other than pupils enrolled in junior kindergarten or kindergarten, or
 - (B) 75 minutes or more per school day of instruction in French, for pupils enrolled in junior kindergarten or kindergarten, and

(b) in respect of secondary school pupils, the sum of,

- (i) the products obtained by multiplying the enrolment for a program in the subject of French that is established for pupils whose first language is not French, by the number of credits that may be granted to a pupil for such subject, and by,
 - (A) \$57 in the case of a subject offered in the intermediate division, or
 - (B) \$75 in the case of a subject offered in the senior division, and
- (ii) the products obtained by multiplying the enrolment for a program established for pupils whose first language is not French and in which a subject other than French is taught in the French language, by the number of credits that may be granted to a pupil for such subject, and by,
 - (A) \$94 in the case of a subject offered in the intermediate division, or
 - (B) \$145 in the case of a subject offered in the senior division;

“eligible sum for full-day kindergarten” means the product of,

- (a) the sum of \$3,801 and the amounts per pupil that are set out in Columns 10 and 11 of Table 2 opposite the name of the board in Column 1 of Table 2,
- (b) 0.50, and
- (c) the sum of the products of the number of resident-internal and non-resident pupils of the board,
 - (i) who on the last school day of September, 1990 are enrolled for an average of 300 or more minutes per school day in a kindergarten operated by the board and 0.6, and
 - (ii) who on the last school day of September, 1991 are enrolled for an average of 300 or more minutes per school day in a kindergarten operated by the board and 0.4;

“eligible sum for Native as a second language” means,

- (a) in respect of elementary school pupils, the sum of,
 - (i) the product of \$219 and the enrolment in a Native language program of an average of 20 or more minutes but less than 40 minutes per school day,
 - (ii) the product of \$389 and the enrolment in a Native language program of an average of 40 or more minutes per school day, and
- (b) in respect of secondary school pupils, the sum of the products obtained by multiplying the enrolment in a Native language

program by the number of credits that may be granted to a pupil for such program, and by,

- (i) \$57 in the case of a program offered in the intermediate division, or
- (ii) \$75 in the case of a program offered in the senior division;

“enrolment for a program” means the sum of,

- (a) the product of the number of resident-internal pupils and non-resident pupils of the board who on the last school day of September, 1990 are registered in the program and 0.6, and
- (b) the product of the number of resident-internal pupils and non-resident pupils of the board who on the last school day of September, 1991 are registered in the program and 0.4,

“enrolment in a Native language program” means the sum of the products of the number of resident-internal pupils and non-resident pupils of the board, other than those whose fees are receivable from Canada or from a band, council of a band or education authority authorized by the Crown in right of Canada to provide education for Indians,

- (a) who on the last school day of September, 1990 are registered in the program and 0.6, and
- (b) who on the last school day of September, 1991 are registered in the program and 0.4;

“E.A.” means equalized assessment for a board and is equal to the sum of the equalized assessment for the municipalities or localities within the jurisdiction of the board, reduced in the case of a Roman Catholic school board, or increased in the case of a public board, by the equivalent assessment in respect of payment transfer;

“equalized assessment for a municipality or locality” means the quotient obtained by dividing the product of 100 and the sum of the assessment and the equivalent assessment for the municipality or locality by the A.E.F. for grant purposes;

“equivalent assessment for a municipality or locality” means the amount of assessment that would yield an amount equal to the sums payable or allocated by the municipality or locality to a board in respect of,

- (a) the tax levied under subsections 161 (12) and (13) of the *Municipal Act* that is paid or allocated to the board, and
- (b) payments in lieu of taxes,

if such assessment were levied upon at the rate levied in 1990 in the municipality or locality for the purposes of the board on residential and farm assessment, or such amount as adjusted by the Minister;

“equivalent assessment in respect of payment transfer” means,

- (a) for a public board, the sum of the amounts that are determined, in respect of each of the Roman Catholic school boards from which the board receives a payment under section 2 of Ontario Regulation 90/91 (Payment Transfer Between Coterminous Boards), by taking the product of the amount described as $\frac{E}{F}$ in subsection 2 (1) of such regulation, and the sum of the equalized assessment for separate school purposes for the municipalities or localities within the jurisdiction of both the public board and the Roman Catholic school board;
- (b) for a Roman Catholic school board, the sum of the amounts that are determined, in respect of each of the public boards to which the board makes a payment under section 2 of Ontario Regulation 90/91 (Payment Transfer Between Coterminous Boards), by taking the product of the amount described as $\frac{E}{F}$

in subsection 2 (1) of such regulation, and the sum of the equalized assessment for separate school purposes for the municipalities or localities within the jurisdiction of both the public board and the Roman Catholic school board;

“isolate board” means a district school area board, a rural separate school board, a combined Roman Catholic separate school board, a Protestant separate school board or a secondary school board;

“maximum recognized day school O.E.” means the amount calculated as follows,

$$A - \left(B \times \frac{A}{B + C} \right), \text{ correct to two places of decimals}$$

except where $\frac{A}{B + C}$ is greater than 1 it shall be 1, and

where,

A = the product of the day school A.D.E. of resident-internal pupils of the board and \$3,770 in the case of elementary school pupils and \$4,710 in the case of secondary school pupils,

B = the excess of,

- (a) the total of the salaries, wages and related employee benefits that are not payable to teachers and other employees of the board because of a strike or lockout, other than salaries, wages and employee benefits for instruction of summer schools, heritage language classes, driver education classes and courses referred to in the definition “continuing education A.D.E. for grant purposes”;

over,

- (b) the expenditures incurred by the board that, in the opinion of the Minister, are attributable to a strike or lockout of the employees for which the savings for salaries, wages and employee benefits are included in clause (a) except a provision for a reserve for tax reduction, and

C = O.E. less tuition fees in respect of resident-external pupils of the board;

“MR” means the standard mill rate for R.O.E. and is equal to 0.005628 for elementary school purposes or 0.004635 for secondary school purposes;

“MR1” means the standard mill rate for first level of R.E.E. and is equal to 0.000090 for elementary school purposes or 0.000048 for secondary school purposes;

“MR2” means the standard mill rate for second level of R.E.E. and is equal to 0.000022 for elementary school purposes or 0.000010 for secondary school purposes;

“MR3” means the standard mill rate for operating expenditure and is equal to 0.000149 for elementary school purposes or 0.000098 for secondary school purposes;

“non-resident pupil”, of a board, means a pupil, other than a pupil from outside Ontario enrolled at a school under a student exchange program approved by the board, who is enrolled at a school operated by the board,

(a) in respect of whom,

- (i) the Minister pays the cost of education,
- (ii) the board charges a fee to another board,

(iii) the board may charge a fee to Canada, to a board appointed under section 70 of the Act or to a source outside Ontario, or

(iv) the board may charge a fee to a band, the council of a band or education authority that is authorized by the Crown in right of Canada to provide education for Indians,

(b) who is a registered Indian residing on a reserve as defined in the *Indian Act* (Canada), or

(c) who is a pupil in Canada as a visitor or as a student under the *Immigration Act* (Canada) for whom the board is required under subsection 48 (6) of the Act to charge the maximum fee calculated in accordance with the regulations;

“O.E.” means ordinary expenditure and is equal to the current cost of operating increased by tuition fees in respect of resident-external pupils of the board, and reduced by the sum of,

(a) the eligible sum for French as a first language, the eligible sum for French as a second language, the eligible sum for full-day kindergarten, the eligible sum for Native as a second language and the recognized expenditure for textbooks,

(b) cost of education payable under sections 31 to 33 inclusive reduced by the P.A.C. included in such cost of education,

(c) tuition fees in respect of non-resident pupils of the board,

(d) grants for reduction in class size for grades 1 and 2 determined under section 21,

(e) grants for small schools, small boards, small sections, goods and services, compensatory education, declining enrolment, language instruction, mixed schools and technical education determined under sections 10, 11, 12, 13, 14, 15, 18, 19 and 25 respectively,

(f) assistance for open-access tuition fees determined under section 39,

(g) grants providing special compensation for pooling under section 45, and

(h) payments made under subsection 46 (3) of the *Ottawa-Carleton French-Language School Board Act, 1988*;

“payment in lieu of taxes” means, in respect of a municipality, the sum of,

(a) the amounts payable by the municipality to the board under subsection 7 (10) of the *Housing Development Act*, under subsection 498 (4) of the *Municipal Act* and under subsection 46 (9) of the *Power Corporation Act*,

(b) the amount paid by the municipality to the board that is in excess of the amount requisitioned by the board and which is in respect of an allocation of taxes or payments in lieu of taxes other than the amount receivable by the board under section 34 of the *Assessment Act*,

(c) the amounts receivable by the board from subscriptions in lieu of taxes, and

(d) the amounts payable by the municipality to the board under section 2 of the *Municipal and School Board Payments Adjustment Act, 1989*;

“psychiatric facility” means a children’s mental health centre established or approved under subsection 8 (1) of Part I (Flexible Services) of the *Child and Family Services Act, 1984*, or a facility designated as a psychiatric facility under the *Mental Health Act* and includes the private hospital known as “The Villa” and located in the City of Vaughan;

"P.A.C." means the pupil accommodation charge for a pupil and is equal to the product of the portion of the A.D.E. calculated under section 2 of Ontario Regulation 89/91 (Calculation of Average Daily Enrolment) that is in respect of the pupil and \$141 in the case of an elementary school pupil or \$282 in the case of a secondary school pupil;

"R.E.E." means recognized extraordinary expenditure and is equal to the sum of,

- (a) the amount approved by the Minister for grant purposes for the period from January 1, 1991 to June 30, 1991 for the transportation of,
 - (i) resident-internal pupils and resident-external pupils of the board to and from school and from school to school, and
 - (ii) persons qualified to be resident pupils of the board to and from the schools and facilities referred to in subsection 166 (2) of the Act and the centres referred to in subsection 166 (3) thereof,

except where the parent or guardian of a pupil contributes, other than by taxation, to the cost of such transportation,

- (b) the amount approved by the Minister for grant purposes for the period from January 1, 1991 to June 30, 1991, for board, lodging and weekly transportation to school and return of resident-internal pupils and resident-external pupils of the board,
- (c) debt charges payable by the board or on its behalf by a municipality or a county in respect of the portion of a debenture approved by the Minister for grant purposes,
- (d) the portion of the items referred to in clauses (a), (b) and (c) of the definition "capital appurtenances" that is approved by the Minister for grant purposes, other than capital projects eligible for grant under section 51 and the restoration of such items up to the amount of the proceeds of insurance in respect of their loss,
- (e) the portion of the items referred to in clause (d) of the definition "capital appurtenances" that is approved by the Minister for grant purposes,
- (f) the portion of the items referred to in clause (e) of the definition "capital appurtenances" that has not been designated by the board as O.E., is not eligible for grant under subsection 27 (3) or section 51, and is approved by the Minister for grant purposes,
- (g) the restoration of the items referred to in clauses (d) and (e) of the definition "capital appurtenances" up to the amount of the proceeds of insurance in respect of their loss,
- (h) the lesser of,
 - (i) expenditure for items referred to in clause (e) of the definition "capital appurtenances" less the sum of,
 - (A) such expenditure included in clause (f) or (g),
 - (B) such expenditure eligible for grant under subsection 27 (3) or section 51,
 - (C) such expenditure designated by the board as O.E., and
 - (D) current revenue from donations that is not deducted in the determination of current cost of operating under subclause (c) (xv) of the definition "current cost of operating" except such revenue from donations that is applied to expenditure for capital appurtenances that is other than expenditure for furniture and equipment included in this subclause, and

(ii) the sum of,

- (A) current revenue from the sale or disposal of items referred to in clause (e) of the definition "capital appurtenances", and
- (B) the product of \$16 in the case of an elementary school pupil or \$27 in the case of a secondary school pupil and the day school A.D.E. of resident-internal pupils of the board,

less the portion of the revenue from the sale or disposal of, and from insurance proceeds in respect of, capital appurtenances that is designated by the Minister as deductible from R.E.E.,

- (i) the portion approved by the Minister for grant purposes of the capital element included in rent payable,
- (j) the P.A.C. in respect of resident-external pupils of the board,
- (k) the portion of the expenditure for the relocation of portable classrooms that is not in excess of the product of \$4,250 and the number of relocations approved by the Minister,
- (l) the portion of the expenditure approved by the Minister for the training of teachers in the use of computer technology for instructional purposes, and
- (m) the portion of the expenditure approved by the Minister for the training of teachers in the use of technological equipment for instructional purposes,

less the sum of,

- (n) the P.A.C. in respect of non-resident pupils of the board, and
- (o) the portion of the capital element included in rent receivable that is designated by the Minister as deductible from R.E.E.;

"R.O.E." means recognized ordinary expenditure and is equal to the lesser of the O.E. and the sum of,

- (a) the maximum recognized day school O.E.,
- (b) the teacher qualifications and experience adjustment,
- (c) the product of the portion of the summer school A.D.E. for grant purposes that is in respect of elementary school pupils of the board and \$3,770,
- (d) the recognized tuition fees, and
- (e) the sum of,
 - (i) the portion of the expenditure that is approved by the Minister for training assistance of designated persons as specified in Ontario Regulation 705/87 (Training Assistance), and
 - (ii) the portion of the salaries, wages and benefits paid by the board to designated persons referred to in subclause (i) that is approved by the Minister and that is in respect of the portion of the designated person's contract time during 1991 that is specified, in a written agreement between the designated person and the board, as being directed towards training and released from board-assigned duties;

"recognized expenditure for textbooks" means the sum of,

- (a) the lesser of,
 - (i) the expenditure of the board for textbooks for Ontario Academic Courses or courses leading to the Secondary School Honour Graduation Diploma that are listed in Circular 14 or are approved by the board under schedule 5 of Circular 14, and

(ii) the product of \$5 and the day school A.D.E. of resident-internal pupils of the board, and

(b) the lesser of,

(i) the expenditure of the board for textbooks listed in Circular 14 or approved by the board under clause 3 (b) of Circular 14, other than textbooks for Ontario Academic Courses or courses leading to the Secondary School Honour Graduation Diploma, that is in excess of the product of the day school A.D.E. of resident-internal pupils of the board and \$13 in the case of elementary school pupils or \$22 in the case of secondary school pupils, and

(ii) the product of the day school A.D.E. of resident-internal pupils of the board and \$15 in the case of elementary school pupils or \$12 in the case of secondary school pupils;

“recognized expenditure for transportation” means the sum of,

(a) the amount approved by the Minister for grant purposes for the period from July 1, 1991 to December 31, 1991 for the transportation of,

(i) resident-internal pupils and resident-external pupils of the board to and from school and from school to school, and

(ii) persons qualified to be resident pupils of the board to and from the schools and facilities referred to in subsection 166 (2) of the Act and the centres referred to in subsection 166 (3) thereof,

except where the parent or guardian of a pupil contributes, other than by taxation, to the cost of such transportation, and

(b) the amount approved by the Minister for grant purposes for the period from July 1, 1991 to December 31, 1991 for board, lodging and weekly transportation to school and return of resident-internal pupils and resident-external pupils of the board;

“recognized tuition fees” means the expenditure for tuition fees less the sum of,

(a) the product of \$3,770 in the case of an elementary school pupil or \$4,710 in the case of a secondary school pupil and the number by which the A.D.E. in respect of resident-external pupils of the board is increased for fee purposes by the application of factors determined under subsection 3 (4) of Ontario Regulation 88/91 (Calculation of Fees for Pupils), and

(b) the sum of the amounts that are determined for the board, in respect of each of the boards with which the board has the same or part of the same area of jurisdiction, calculated as follows,

$$A \times (B - C)$$

where,

A = the portion of the A.D.E. calculated under section 2 of Ontario Regulation 89/91 (Calculation of Average Daily Enrolment) that is in respect of secondary school pupils who are resident-external pupils of the board and for whom fees are payable to the board that has the same or part of the same area of jurisdiction,

B = the tuition fee charged by the board that has the same or part of the same area of jurisdiction as determined under clause 3 (1) (a) of Ontario Regulation 88/91 (Calculation of Fees for Pupils), and

C = the sum of \$4,727 and the amounts per pupil that are set out in Columns 10 and 11 of Table 2 opposite the name of the board in Column 1 of Table 2,

and where the amount is negative, it shall be zero;

“resident-external pupil”, of a board, means a pupil whose fee is payable by the board;

“resident-internal pupil”, of a board, means a pupil, other than a non-resident pupil, who is enrolled at a school operated by the board;

“secondary school pupil” means a pupil who is enrolled in a school operated by,

(a) a secondary school board, or

(b) a board of education, a Roman Catholic school board or the public sector of the Roman Catholic sector of The Ottawa-Carleton French-language School Board for the purposes of receiving education in the last two years of the intermediate division or in the senior division;

“summer school A.D.E. for grant purposes” means,

(a) in respect of elementary school pupils, the portion of the A.D.E. calculated under section 3 of Ontario Regulation 89/91 (Calculation of Average Daily Enrolment) that is in respect of resident-internal pupils of the board enrolled in summer schools established by the board, in a course of study that the board is authorized or required to provide in its day school program in grades 1 to 8, and the course is approved by the Minister for grant purposes, and

(b) in respect of secondary school pupils, the portion of the A.D.E. calculated under section 3 of Ontario Regulation 89/91 (Calculation of Average Daily Enrolment) that is in respect of pupils enrolled in summer schools established by the board in a course for which credit is granted, and the course is approved by the Minister for grant purposes;

“teacher qualifications and experience adjustment” means the product of,

(a) the day school A.D.E. of resident-internal pupils of the board,

(b) the amount per pupil that is set out in Column 11 of Table 2 opposite the name of the board in Column 1 of Table 2, and

(c) where a strike or lockout of certain employees of the board occurs during the year, the ratio of the O.E. to the sum of the O.E. and the excess described as B in the definition “maximum recognized day school O.E.”;

“tuition fees” means fees for instruction of pupils, less any P.A.C. that is included therein in respect of such pupils. O. Reg. 86/91, s. 1.

Conditions

2.—(1) The legislative grant payable for 1991 to a board other than an isolate board or a board appointed under section 70 of the Act shall be the sum of the amounts calculated under sections 8 to 45 inclusive and section 51.

(2) The legislative grant payable for 1991 to an isolate board shall be the sum of the amounts calculated under sections 31 to 35 inclusive and section 47.

(3) The legislative grant payable for 1991 to a board appointed under section 70 of the Act shall be the sum of the amounts calculated under sections 49 and 50.

(4) Calculations under this Regulation shall, unless otherwise provided, be made using data for 1991. O. Reg. 86/91, s. 2.

3. For the purposes of this Regulation, The Metropolitan Toronto School Board and the boards of education as provided in section 118 of the *Municipality of Metropolitan Toronto Act* shall be deemed to be one divisional board of education and the area municipalities as provided in section 1 of that Act shall be deemed to be one urban municipality. O. Reg. 86/91, s. 3.

4.—(1) The legislative grant payable to a board of education or a Roman Catholic school board shall be calculated separately for elementary school purposes and for secondary school purposes.

(2) The legislative grant payable to a board for elementary school purposes shall be applied to elementary school purposes.

(3) The legislative grant payable to a board for secondary school purposes shall be applied to secondary school purposes. O. Reg. 86/91, s. 4.

5.—(1) Where in respect of a board the calculation made to determine a legislative grant described under a section of this Regulation results in a negative amount for elementary or secondary school purposes, the sum of the amounts calculated as payable under the other section or sections of this Regulation shall be reduced by the negative amount, and the remainder obtained thereby is the legislative grant payable to the board for elementary or secondary school purposes, as the case may be.

(2) Where the remainder calculated under subsection (1) is a negative amount for elementary school purposes, the legislative grant payable to the board for secondary school purposes shall be reduced by the negative amount, and the remainder obtained thereby is the legislative grant payable to the board.

(3) Where the remainder calculated under subsection (1) is a negative amount for secondary school purposes, the legislative grant payable to the board for elementary school purposes shall be reduced by the negative amount, and the remainder obtained thereby is the legislative grant payable to the board.

(4) Notwithstanding subsections (1), (2) and (3), the legislative grant payable to a board shall not be less than the product of,

- (a) the sum of the amounts calculated for the board under section 27 for elementary school purposes and for secondary school purposes; and
- (b) an estimate approved by the Minister of the average number of pupils enrolled on each school day in 1991 in the educational programs provided by the board in the facilities referred to in section 27 and who, except as to residence, would be qualified to be resident pupils of the board, divided by the average number of pupils enrolled on each school day in 1991 in the educational programs provided by the board in the facilities referred to in section 27. O. Reg. 86/91, s. 5.

6.—(1) Where a board fails to comply with the Acts administered by the Minister or the regulations thereunder, the Minister may withhold the whole or any part of a legislative grant payable until the board has taken the action necessary to correct the condition that caused the grant to be withheld.

(2) Where the legislative grant payable under this Regulation is overpaid, the board shall refund the amount of the overpayment to the Province of Ontario.

(3) Where the legislative grant payable under this Regulation is underpaid, the amount of the underpayment shall be paid to the board.

(4) Where the amount payable to a board under a previous regulation was either overpaid or underpaid, the overpayment or underpayment, as the case may be, shall be deducted from or added to the legislative grant payable under this Regulation to the board that has jurisdiction in the area for which the adjustment is necessary.

(5) Where a board is convicted of an offence or is held by a court to have contravened an Act, the Minister may exclude from grant assist-

ance, the expenditure by the board for legal fees payable and fines and damage awards imposed in respect of such conviction or contravention. O. Reg. 86/91, s. 6.

7.—(1) The calculation and payment to a board of the legislative grant for the year 1991 shall be made in accordance with this Regulation.

(2) The legislative grant payable under this Regulation shall be paid in the number of instalments and at the times designated by the Minister.

(3) The legislative grant payable under this Regulation shall be paid on an estimated basis during 1991 and such adjustments as may be necessary shall be made when the actual financial data and A.D.E. are available.

(4) Where the portion of the moneys appropriated by the legislature for legislative grants to boards for the provincial fiscal year 1991-92 that is allocated by the Minister to pay the balance owing under a regulation in respect of legislative grants for a previous year and the instalments payable during the provincial fiscal year 1991-92 under this Regulation except this subsection is more than sufficient or insufficient for such purposes, the Minister may increase or decrease, as the case may be, the total of the legislative grants payable under section 8 by the amount of such surplus or insufficiency by adjusting the mill rates referred to in the definition "MR". O. Reg. 86/91, s. 7.

CATEGORY 1—BASIC PER PUPIL GRANT

Grant For Recognized Ordinary Expenditure

8. A board shall be paid a grant equal to the sum of,

- (a) an amount calculated as follows,

$$\text{R.O.E.} - (\text{Q} \times \text{MR} \times \text{E.A.})$$

where,

Q = the quotient, correct to five places of decimals, obtained by dividing R.O.E. by the sum of,

- (i) the maximum recognized day school O.E.,
- (ii) the amount determined in the definition "maximum recognized day school O.E." in respect of the portion of the formula therein described as,

$$\left(\text{B} \times \frac{\text{A}}{\text{B} + \text{C}} \right)$$

- (iii) the product of the day school A.D.E. of resident-external pupils of the board, and the sum of \$3,770 in the case of an elementary school pupil or \$4,710 in the case of a secondary school pupil and the amount per pupil that is set out in Column 10 of Table 2 opposite the name of the board in Column 1 of Table 2; and

- (b) the product of 0.20 and the legislative grant to the board determined under section 40 of Ontario Regulation 98/87 (General Legislative Grants). O. Reg. 86/91, s. 8.

CATEGORY 2—BOARD SPECIFIC GRANTS

Grant for French as a First Language

9. A board shall be paid, in respect of schools and classes established under section 258 or 261 of the Act where French is the language of instruction, a grant equal to the eligible sum for French as a first language. O. Reg. 86/91, s. 9.

Grant for Small Schools

10. A board shall be paid, in respect of the additional costs to the board of operating small isolated schools, a grant equal to the product of

the day school A.D.E. of resident-internal pupils of the board and the amount per pupil that is set out in Column 2 of Table 2 opposite the name of the board in Column 1 of Table 2. O. Reg. 86/91, s. 10.

Grant for Small Boards

11. A board shall be paid, in respect of the additional administrative costs of operating a board with a low enrolment, a grant equal to the product of the day school A.D.E. of resident-internal pupils of the board and the amount per pupil that is set out in Column 3 of Table 2 opposite the name of the board in Column 1 of Table 2. O. Reg. 86/91, s. 11.

Grant for Small Sections

12. A board shall be paid, in respect of the additional administrative costs of operating a section with a low enrolment, a grant equal to the product of the day school A.D.E. of resident-internal pupils of the board and the amount per pupil that is set out in Column 4 of Table 2 opposite the name of the board in Column 1 of Table 2. O. Reg. 86/91, s. 12.

Grant for Goods and Services

13. A board shall be paid, in respect of the additional costs to the board of purchasing goods and obtaining services in remote areas, a grant equal to the product of the day school A.D.E. of resident-internal pupils of the board and the amount per pupil that is set out in Column 5 of Table 2 opposite the name of the board in Column 1 of Table 2. O. Reg. 86/91, s. 13.

Grant for Compensatory Education

14. A board shall be paid, in respect of the additional costs to the board of providing compensatory education programs and services, a grant equal to the product of the day school A.D.E. of resident-internal pupils of the board and the amount per pupil that is set out in Column 6 of Table 2 opposite the name of the board in Column 1 of Table 2. O. Reg. 86/91, s. 14.

Grant for Declining Enrolment

15. A board shall be paid, in respect of declining enrolment, a grant calculated as follows,

$$[(A \times C) + (B \times D)] \times E \times F$$

where,

$$A = \frac{\text{ADE 90}}{\text{ADE 91} + \text{ADE.EB.91}} - 1, \text{ correct to four places of decimals,}$$

$$B = \frac{\text{ADE 89}}{\text{ADE 90} + \text{ADE.EB.90}} - 1, \text{ correct to four places of decimals,}$$

$$C = 0.6 \times G \text{ if } A \text{ is greater than zero,}$$

$$= 1.0 \text{ if } A \text{ is equal to or less than zero,}$$

$$D = 0.3 \times G \text{ if } B \text{ is greater than zero,}$$

$$= 0.0 \text{ if } B \text{ is equal to or less than zero,}$$

$$E = \text{the sum of the day school A.D.E. of resident-internal pupils of the board and ADE.EB.91,}$$

$$F = \text{the sum of } \$3,770 \text{ for elementary school purposes or } \$4,710 \text{ for secondary school purposes and the amount per pupil that is set out in Column 10 of Table 2 opposite the name of the board in Column 1 of Table 2,}$$

$$G = 1.0 \text{ if } E \text{ is less than or equal to } 4,000,$$

$$= 0.5 \text{ if } E \text{ is greater than or equal to } 14,000,$$

$$= 1 - \frac{E - 4,000}{20,000}, \text{ correct to two places of decimal, if } E \text{ is greater than } 4,000 \text{ but less than } 14,000$$

where,

ADE 91 means the average daily enrolment for 1991 calculated under section 2 of Ontario Regulation 89/91 (Calculation of Average Daily Enrolment) that is in respect of resident-internal and non-resident pupils of the board,

ADE 90 and ADE 89 means the average daily enrolment for 1990 and 1989 respectively in respect of resident-internal and non-resident pupils, calculated under section 2 of Ontario Regulation 127/85 (Calculation of Average Daily Enrolment),

ADE.EB.91 and ADE.EB.90 mean the amounts by which ADE 91 and ADE 90 respectively were reduced as a result of the transfer to a Roman Catholic school board of a secondary school referred to in section 40, and

where the amount calculated under this section is a negative amount, it shall be zero. O. Reg. 86/91, s. 15.

CATEGORY 3—PROGAM SPECIFIC GRANTS

Grant for French as a Second Language

16.—(1) A board shall be paid, in respect of instruction in French in classes established for pupils whose first language is not French, a grant calculated as follows,

$$A - \left(\frac{A}{100 \times B} \times \text{MR1} \times \text{E.A.} \right)$$

where,

A = the eligible sum for French as a second language,

B = the sum of,

- (i) the day school A.D.E. of resident-internal pupils of the board, and
- (ii) the day school A.D.E. of non-resident pupils of the board.

(2) Where, in 1991, a board offers for the first time in a secondary school other than a French-language secondary school or a school having a French-language instructional unit, a course for which credit may be granted and in which French is the language of instruction for pupils whose first language is not French, and the course is in a subject other than French or is a special course in the subject of French designed for graduates of an elementary school program of extended or immersion French, the board shall be paid a grant of \$3,374 for each such course except that such grant shall not be paid in respect of a course that increases the total number of such courses in a grade at the school to more than four. O. Reg. 86/91, s. 16.

Grant for Native as a Second Language

17.—(1) A board shall be paid, in respect of Native as a second language instruction, a grant calculated as follows,

$$A - \left(\frac{A}{100 \times B} \times \text{MR1} \times \text{E.A.} \right)$$

where,

A = the eligible sum for Native as a second language, the sum of,

B = the sum of,

- (i) the day school A.D.E. of resident-internal pupils of the board, and

- (ii) the day school A.D.E. non-resident pupils of the board.

(2) A board shall be paid, in respect of Native as a second language instruction, a grant equal to the product of \$200 and the number of resident-internal and non-resident pupils of the board who on the last school day of September, 1991 are registered in a Native as a second language program conducted by the board. O. Reg. 86/91, s. 17

Grant for Additional Language Instruction

18. A board shall be paid, in respect of the additional costs to the board of providing language instruction programs for pupils whose first language is neither English nor French in order that they may take advantage of regular instruction in the school, a grant equal to the product of the day school A.D.E. of resident-internal pupils of the board and the amount per pupil that is set out in Column 7 of Table 2 opposite the name of the board in Column 1 of Table 2. O. Reg. 86/91, s. 18.

Grant for Mixed Language Secondary Schools

19. A board shall be paid, in respect of the additional costs to the board of providing courses in the minority language of a mixed language secondary school, a grant equal to the product of the day school A.D.E. of resident-internal pupils of the board and the amount per pupil that is set out in Column 8 of Table 2 opposite the name of the board in Column 1 of Table 2. O. Reg. 86/91, s. 19.

Grant for Full-Day Kindergarten

20. A board shall be paid a grant calculated as follows,

$$A - \left(\frac{A}{100 \times B} \times MR3 \times E.A. \right), \text{ or zero if such calculation is negative}$$

where,

A = the eligible sum for full-day kindergarten,

B = the sum of,

- (a) the day school A.D.E. of resident-internal pupils of the board, and
- (b) the day school A.D.E. of non-resident pupils of the board. O. Reg. 86/91, s. 20.

Grant for Reduction in Class-Size in Grades 1 and 2

21. A board shall be paid a grant equal to the sum of,

- (a) the product of 1.575 and the portion of the grant payable to the board that is calculated under clause 20 (b) of Ontario Regulation 141/90 (General Legislative Grants); and
- (b) the product of,
 - (i) the number of resident-internal and non-resident pupils of the board who, on the last school day of September, 1991, are enrolled in the primary division in the first two years of the program of studies immediately following kindergarten in a class other than a self-contained class for exceptional pupils,
 - (ii) 0.4, and
 - (iii) the lesser of,
 - (A) \$700, and
 - (B) $\left(\frac{1}{A} - \frac{1}{28.2} \right) \times \$48,200$, or zero if such calculation is negative

where,

A = the average class-size for pupils enrolled in the primary division in the first two years of the program of studies immediately following kindergarten and is calculated by dividing the number of pupils determined under subclause (i) by the number of regular classroom teachers or portions thereof employed and assigned by the board to teach pupils described under subclause (i), and the calculation so determined is subject to the approval of the Minister. O. Reg. 86/91, s. 21.

Grant for Textbooks

22. A board shall be paid a grant equal to an amount calculated as follows,

$$A - \left(\frac{A}{100 \times B} \times MR1 \times E.A. \right)$$

where,

A = the recognized expenditure for textbooks,

B = the day school A.D.E. of resident-internal pupils of the board. O. Reg. 86/91, s. 22.

Grant for Recognized Extraordinary Expenditure

23. A board shall be paid a grant calculated as follows,

$$\left[A - \left(\frac{A}{100 \times B} \times MR1 \times E.A. \right) \right] + \left[C - \left(\frac{C}{100 \times B} \times MR2 \times E.A. \right) \right]$$

where,

A = first level R.E.E. calculated by subtracting the second level of R.E.E. from R.E.E.,

B = the sum of the day school A.D.E. of resident-internal pupils of the board and the day school A.D.E. of resident-external pupils of the board,

C = second level R.E.E. calculated as,

D - (268 × B), or zero if such calculation is negative,

D = the sum of the amounts included in clauses (a), (b) and (c) of the definition "R.E.E.", exclusive of debt charges in respect of debentures for which debt charges become payable for the first time after the 31st day of December, 1976. O. Reg. 86/91, s. 23.

24. A board shall be paid, in respect of the transportation of pupils for the period from July 1, 1991 to December 31, 1991, a grant equal to the sum of,

- (a) the lesser of,
 - (i) the recognized expenditure for transportation, and
 - (ii) the product of,
 - (A) the amount per pupil that is set out in Column 2 of Table 3 opposite the name of the board in Column 1 of Table 3, and
 - (B) the sum of the day school A.D.E. of resident-internal pupils of the board and the day school A.D.E. of resident-external pupils of the board; and
- (b) the amount calculated as follows,
 - A - $\left(\frac{A}{100 \times B} \times MR3 \times E.A. \right)$, or zero if such calculation is negative,

where,

A = the excess of recognized expenditure for transportation over the amount calculated in clause (a),

B = the sum of the day school A.D.E. of resident-internal pupils of the board and the day school A.D.E. of resident-external pupils of the board,

except that the grant paid under this section shall not be less than the product of 0.3 and the amount set out in Column 3 of Table 3 opposite the name of the board in Column 1 of Table 3. O. Reg. 86/91, s. 24.

Grant for Technical Education

25. A board shall be paid, in respect of the additional costs to the board of providing technical education programs and services, a grant equal to the product of the day school A.D.E. of resident-internal pupils of the board and the amount per pupil that is set out in Column 9 of Table 2 opposite the name of the board in Column 1 of Table 2. O. Reg. 86/91, s. 25.

Grants for Programs in Lieu of Provincial Services for Blind and Deaf

26.—(1) Where a board provides in its schools a special education program in lieu of an education program provided in a provincial school for the blind, deaf or deaf-blind or other program approved by the Minister, the board, subject to the approval of the Minister, shall be paid a grant equal to the product of,

- (a) the sum of the number of teachers approved by the Minister and one-half of the number of teacher assistants approved by the Minister employed by the board for the purpose of providing such a special education program; and
- (b) \$48,200 in the case of a program for elementary school pupils or \$55,400 in the case of a program for secondary school pupils.

(2) Subject to the approval of the Minister, where a board employs a qualified interpreter to assist an exceptional pupil who is otherwise admissible to a provincial school who is identified by the board's identification placement and review committee, established under Ontario Regulation 554/81, as deaf or hard-of-hearing or employs a qualified transcriber to assist the teacher of an exceptional pupil who is identified by the board's identification placement and review committee as blind, the board shall be paid a grant calculated as follows,

$$A - \left(\frac{A}{100 \times B} \times MR3 \times E.A. \right), \text{ or zero if such calculation is negative,}$$

where,

A = the sum of,

- (a) the number of interpreters approved by the Minister multiplied by \$34,000, and
- (b) the number of transcribers approved by the Minister multiplied by \$28,000,

B = the sum of,

- (a) the day school A.D.E. of resident-internal pupils of the board, and
- (b) the day school A.D.E. of non-resident pupils of the board. O. Reg. 86/91, s. 26.

Grants for Education Programs in Care, Treatment and Correctional Facilities

27.—(1) Where a board employs a teacher to provide an educational program in,

- (a) a psychiatric facility;
- (b) an approved charitable institution as defined in the *Charitable Institutions Act*;
- (c) an agency approved under subsection 8 (1) of Part I (Flexible Services) of the *Child and Family Services Act, 1984*;
- (d) an approved home as defined in the *Homes for Retarded Persons Act*;
- (e) a place of temporary detention, open custody or secure custody continued or established under subsection 85 (1) of Part IV (Young Offenders) of the *Child and Family Services Act, 1984*;
- (f) a home for special care approved or licensed under the *Homes for Special Care Act*;
- (g) a Crippled Children's Treatment Centre classified as a Group K Hospital under the *Public Hospitals Act*;
- (h) The Hospital for Sick Children, Toronto;
- (i) The Children's Hospital of Eastern Ontario, Ottawa;
- (j) Bloorview Children's Hospital, Toronto;
- (k) Children's Hospital of Western Ontario, London;
- (l) Lyndhurst Hospital, Toronto;
- (m) a hospital in which an education program is discontinued subsequent to December, 1980 as a result of dissolution of a board established under section 70 of the Act;
- (n) a home approved or licensed under the *Nursing Homes Act*;
- (o) a correctional institution as defined in the *Ministry of Correctional Services Act*;
- (p) a place of secure or open custody designated under section 24 of the *Young Offenders Act (Canada)* or place of temporary detention designated under subsection 7 (1) of that Act,

that is situated within the area of jurisdiction of the board and in which no education program is provided by the Ministry and the Minister approves such education program, the board shall be paid a grant equal to,

- (q) the expenditure in 1991 for salary and related employee benefits of the teacher and an additional amount not in excess of \$2,500 per teacher in respect of the expenditure of the board for administrative, consultative and supervisory services, for replacement of furniture and equipment and for the purchase of instructional supplies in respect of such program; and
- (r) expenditure in 1991 for salary and related employee benefits of a teacher-aid to assist a teacher in the provision of such educational program and an additional amount not in excess of \$1,220 for each such teacher-aid.

(2) The approval of the Minister referred to in subsection (1) shall be given only where the board has entered into a written agreement with the facility, home or institution, or the administrator thereof, setting out the responsibilities of the facility, home or institution for the provision of accommodation and the responsibilities of the board for the provision of the education program, including the number of teachers that the board agrees to provide.

(3) Where a board referred to in subsection (1) incurs an expenditure for furniture or equipment or both for a classroom for an education program referred to in subsection (1), the board shall be paid a grant equal to the approved portion of such expenditure, except that the grant in respect of furniture and equipment for the classroom shall in no case exceed \$3,300.

(4) Where a board enters into a written agreement with a facility or hospital referred to in subsection (1), or with the administrator of such facility, to provide an educational program that was previously provided in the facility or hospital by the Ministry and the Minister approves such education program, the Minister may pay the board, in lieu of other grants payable under this Regulation in respect of the program, an amount equal to the operating cost that is approved by the Minister for the program. O. Reg. 86/91, s. 27.

Grant for Summer School for Secondary School Pupils,
Continuing Education and Driver Education

28. A board shall be paid a grant equal to the greater of,

- (a) the product of,
 - (i) \$2,257, and
 - (ii) the sum of the continuing education A.D.E. for grant purposes for the board, the portion of the summer school A.D.E. for grant purposes that is in respect of secondary school pupils of the board and the portion of the A.D.E. calculated under clause 3 (a) of Ontario Regulation 89/91 (Calculation of Average Daily Enrolment) that is in respect of secondary school pupils who are enrolled in day school and who are enrolled in the classroom instruction portion of a course in driver education; and
- (b) the product of,
 - (i) \$3,770 in the case of elementary school pupils other than elementary school pupils enrolled in courses for which credit is granted in the intermediate division or \$4,710 in the case of secondary school pupils or elementary school pupils enrolled in courses for which credit is granted in the intermediate division,
 - (ii) the quotient obtained by dividing the grant payable to the board under section 8 by the R.O.E., and
 - (iii) the A.D.E. calculated in subclause (a) (ii). O. Reg. 86/91, s. 28.

Grant for Heritage Language

29. Where a board conducts classes for heritage language instruction in a language other than English or French that are approved by the Minister, the board shall be paid a grant in respect of each such class that is equal to the product of \$41 and the number of hours of classroom instruction except that where the quotient obtained by dividing the number of elementary school pupils enrolled in all such classes conducted by the board by the number of such classes is less than twenty-five, the \$41 per hour rate is reduced by the product of \$1 and the difference between such quotient and twenty-five. O. Reg. 86/91, s. 29.

Assistance for Cost of Education and for Board,
Lodging and Transportation

30.—(1) For the purposes of sections 31 to 38 inclusive,

“cost of education” means an amount equal to the fee calculated under section 3 or 4, as the case requires, of Ontario Regulation 88/91, (Calculation of Fees for Pupils);

“Crown establishment” means an establishment maintained by a Department of the Government of Canada, a Crown company, The Royal Canadian Mounted Police or Atomic Energy of Canada Limited, on lands held by the Crown in right of Canada that are not assessable for school purposes, and includes a reserve as defined in the *Indian Act* (Canada);

“Ontario Government establishment” means an establishment maintained by a Ministry of the Government of Ontario on lands held by the Crown in right of Ontario or by Ontario Hydro on lands held by it and in respect of which no payment is made under the provisions of subsection 45 (9) of the *Power Corporation Act*.

(2) For the purposes of sections 31 to 38 inclusive, a person shall be considered not to reside in an Ontario Government establishment where the person resides in a residence owned by the person on lands that are within the Ontario Government establishment. O. Reg. 86/91, s. 30.

31. Where a pupil who is not resident in a Crown establishment resides in a territorial district on land that is not part of a,

- (a) school section and the pupil attends a public school;
- (b) school section or separate school zone and the pupil attends a separate school; or
- (c) secondary school district and the pupil attends a secondary school,

operated by a board, the Minister shall pay the board the cost of education of the pupil. O. Reg. 86/91, s. 31.

32. Where a pupil, whose parent or guardian resides on land that is not rateable for school purposes, resides in an Ontario Government establishment and attends a school operated by a board, the Minister shall pay the board the cost of education of the pupil. O. Reg. 86/91, s. 32.

33. Where a pupil,

- (a) who is resident within,
 - (i) a psychiatric facility,
 - (ii) an approved charitable institution as defined in the *Charitable Institutions Act*,
 - (iii) an agency approved under subsection 8 (1) of Part I (Flexible Services) of the *Child and Family Services Act, 1984*,
 - (iv) an approved home as defined in the *Homes for Retarded Persons Act*,
 - (v) a home for special care approved or licensed under the *Homes for Special Care Act*,
 - (vi) a home approved or licensed under the *Nursing Homes Act*, or
 - (vii) a place of secure custody or open custody designated under section 24 of the *Young Offenders Act* (Canada) or place of temporary detention designated under subsection 7 (1) of that Act;
- (b) who is detained in a place of temporary detention, open custody or secure custody continued or established under subsection 85 (1) of Part IV (Young Offenders) of the *Child and Family Services Act, 1984*;
- (c) who is detained in a correctional institution as defined in the *Ministry of Correctional Services Act*;
- (d) who is placed in an approved home as defined in the *Mental Hospitals Act*; or
- (e) who is a ward of the Crown under Part III (Child Protection) of the *Child and Family Services Act, 1984*, a ward of a children's aid society or in the care of a children's aid society and who has not been placed for adoption on a probationary basis,

attends a day school operated by a board and the pupil is registered as a non-resident pupil in respect of whom no fee is receivable from Canada under an agreement made pursuant to section 164 or 165 of the Act, the Minister shall pay the board the cost of education of the pupil. O. Reg. 86/91, s. 33.

34. Where a board provides transportation to and from school or from school to school for a pupil for whom the Minister pays the cost of

education, the Minister shall pay the board an amount equal to the amount that would be approved by the Minister for grant purposes for transportation if the pupil were a resident pupil of the board. O. Reg. 86/91, s. 34.

35. Where under subsection 78 (3), 166 (8) or (11) of the Act a board reimburses a parent or guardian of a pupil for whom the Minister pays the cost of education for the cost of board and lodging and transportation once a week from the pupil's residence to school and return, the Minister shall pay the board an amount approved by the Minister for grant purposes of the expenditure in respect of the pupil for board, lodging and transportation. O. Reg. 86/91, s. 35.

Payments to Governing Authorities

36. Where a pupil, who is not a resident in a Crown establishment attends a school supported by local taxation in Manitoba or Quebec, and the pupil resides in a territorial district on land that is not part of a,

- (a) school section or separate school zone and the pupil attends an elementary school; or
- (b) secondary school district and the pupil attends a secondary school,

the Minister shall pay the governing authorities of the school the amount agreed upon between the governing authorities of the school and the Minister. O. Reg. 86/91, s. 36.

37. Where a pupil,

- (a) resides in a territorial district;
- (b) is resident in a school section, a separate school zone or a Crown establishment; and
- (c) attends an elementary school that is supported by taxation in Manitoba or Quebec,

and, where in the opinion of the Minister,

- (d) daily transportation to the elementary school that the pupil would be required to attend in Ontario is impracticable due to distance and terrain; and
- (e) the provision of board, lodging and transportation once a week is impracticable because of the age or handicap of the pupil,

the Minister shall pay the governing authorities of the elementary school in respect of the education and related costs of such pupil amounts agreed upon between the governing authorities of the elementary school and the Minister. O. Reg. 86/91, s. 37.

38. Where a pupil,

- (a) resides in a territorial district;
- (b) is not resident in a school section, a separate school zone or a Crown establishment; and
- (c) attends a school operated by the Indian Affairs Branch of the Department of Indian Affairs and Northern Development on a reserve,

the Minister shall pay the Crown in right of Canada in respect of the education of such pupil an amount agreed upon between the Department of Indian Affairs and Northern Development and the Minister. O. Reg. 86/91, s. 38.

Assistance for Open-Access Tuition Fees

39.—(1) A board other than a board referred to in subsection (2) shall be paid a grant equal to the sum of the amounts that are determined in respect of each of the boards with which the board has substantially the same or part of the same area of jurisdiction, calculated as follows,

$$A \times (B - D)$$

where A and B have the same meaning as in clause (b) of the definition "recognized tuition fees", and where,

D = the greater of,

- (i) the amount referred to as C in clause (b) of the definition "recognized tuition fees", and
- (ii) the tuition fee that would be charged by the board for a non-resident pupil of the board as determined under clause 3 (1) (a) of Ontario Regulation 88/91 (Calculation of Fees for Pupils),

and where the amount is negative, it shall be zero.

(2) A Roman Catholic school board to which subsection 136g (4) of the Act applies shall be paid a grant equal to the sum of the amounts that are determined in respect of each of the public boards with which the board has substantially the same or part of the same area of jurisdiction, calculated as follows,

$$A \times (B - C) \times \left(1 - \frac{E}{F}\right)$$

where A, B and C have the same meaning as in clause (b) of the definition "recognized tuition fees", and where,

E = the quotient obtained by dividing the E.A. for the Roman Catholic school board by the day school A.D.E. of resident-external pupils of the Roman Catholic school board, and

F = the quotient obtained by dividing the E.A. for the public board with which the Roman Catholic school board has substantially the same or part of the same area of jurisdiction by the sum of the day school A.D.E. of resident-internal pupils and the day school A.D.E. of resident-external pupils of the public board. O. Reg. 86/91, s. 39.

Assistance for En Bloc Transfer

40.—(1) A public board set out in Column 1 of Table 4 shall be paid a grant set out opposite in Column 2 of Table 4 in respect of the transfer, as an entire educational program, of one or more secondary schools operated by the public board to a Roman Catholic school board by agreement between the public board and the Roman Catholic school board and the transfer is approved by the Minister, to assist the public board in offsetting operating costs in respect of employee salaries and benefits and administrative and other expenditures that are related to the operation of the school or schools and that could not be transferred to the Roman Catholic school board.

(2) The Carleton Board of Education, The Carleton Roman Catholic Separate School Board, The Ottawa Board of Education and The Ottawa Roman Catholic Separate School Board shall be paid a grant set out in Column 2 of Table 4 opposite the name of the board in Column 1 of Table 4 in respect of the transfer, as an entire educational program, of one or more schools to The Ottawa-Carleton French-language School Board to assist in offsetting operating costs in respect of employee salaries and benefits and administrative and other expenditures that are related to the operation of the school or schools and that could not be transferred to The Ottawa-Carleton French-language School Board. O. Reg. 86/91, s. 40.

Secondary School Reorganization Grant

41. Where on or after the 1st day of January, 1987, as a result of the reorganization of a French-English mixed secondary language school operated by the board prior to September 1, 1985, a board establishes a French-language secondary school under section 261 of the Act, a grant, subject to the approval of the Minister, is payable to the board as follows,

- (a) where such school commenced operation in 1987, 1988 or 1989,

- (i) \$485 per day school pupil enrolled at the school on the last day in September of 1991 where such enrolment is 100 or fewer, or
 - (ii) the lesser of \$60,700 and the amount of \$42,400 plus \$61 per day school pupil enrolled at the school on the last day in September of 1991 where such enrolment is greater than 100;
- (b) where such school commenced operation in 1990,
- (i) \$970 per day school pupil enrolled at the school on the last day in September of 1991 where such enrolment is 100 or fewer, or
 - (ii) the lesser of \$121,400 and the amount of \$84,800 plus \$122 per day school pupil enrolled at the school on the last day in September of 1991 where such enrolment is greater than 100; and
- (c) where such school commences operation in 1991,
- (i) \$1,455 per day school pupil enrolled at the school on the last day in September of 1991 where such enrolment is 100 or fewer, or
 - (ii) the lesser of \$182,100 and the amount of \$127,200 plus \$183 per day school pupil enrolled at the school on the last day in September of 1991 where such enrolment is greater than 100. O. Reg. 86/91, s. 41.

Adjustment in Respect of Change in Tax Revenue

42. For the purpose of this section and section 43,

“equalized assessment for a board for 1990” means equalized assessment for a board as defined in Ontario Regulation 141/90 (General Legislative Grants) except that equivalent assessment for a municipality or locality shall be calculated using the rate levied in 1990 rather than the rate levied in 1989;

“change in taxation for 1990” for a board is the amount calculated as follows,

$$\frac{A - B}{A} \times C$$

where,

A = the equalized assessment for the board for 1990 that is calculated using, for each organized municipality within the jurisdiction of the board,

- (i) the assessment for 1990,
- (ii) the tax levied under subsections 161 (12) and (13) of the *Municipal Act* that is allocated or paid to the board in 1990, and
- (iii) the payment in lieu of taxes for 1990 payable to the board,

as shown in the audited financial report of such municipality for 1990,

B = the equalized assessment for the board for 1990,

C = the amounts the board requisitioned on, or levied or caused to be levied in, the municipalities and localities within the jurisdiction of the board,

and the amount calculated may be a positive or negative amount;

“net adjustment in tax revenue” in respect of a board is calculated as follows,

$$C - B - A$$

where,

A = the change in taxation for 1990 for the board,

B = taxes receivable in 1990 under section 34 of the *Assessment Act*,

C = amounts charged to the board by a municipality in 1990 under section 465 of the *Municipal Act*,

and the amount calculated may be a positive or negative amount;

“net expenditure for 1990” means, in respect of a board, the excess of,

- (a) the sum of the current expenditure for 1990, amounts provided in 1990 for reserves and reserve funds, and tax adjustments charged to the board in 1990,

over,

- (b) current revenue for 1990 including transfers in such year from reserves and other funds and excluding current revenue from taxes, subscriptions in lieu of taxes, payments in lieu of taxes and trailer fees;

“net recognized expenditure for 1990” means the excess of the sum of R.O.E., R.E.E., expenditure approved for capital project grants, recognized expenditure for textbooks, the eligible sum for full-day kindergarten, the eligible sum for French as a second language and the eligible sum for Native as a second language as defined in section 1 of Ontario Regulation 141/90 (General Legislative Grants), taxes receivable in 1990 under section 34 of the *Assessment Act*, and amounts charged to the board by a municipality in 1990 under section 465 of the *Municipal Act* over the sum of grants payable under sections 8, 19, 21, 24 and 51 and subsections 15 (1) and 16 (1) of such Regulation, as adjusted under section 43 thereof. O. Reg. 86/91, s. 42.

43. In respect of a board, an amount calculated as follows,

$$A \times \frac{B}{C}$$

where,

A = the net adjustment in the tax revenue for the board,

B = the net recognized expenditure for 1990 for the board, and

C = the net expenditure for 1990 for the board,

shall,

- (a) where the calculation results in a positive amount, be added to the grants payable to the board; and
- (b) where the calculation results in a negative amount, be deducted from the grants payable to the board. O. Reg. 86/91, s. 43.

Assistance in Respect of Debentures

44. A board shall be paid a grant equal to the sum of,

- (a) the portion acceptable to the Minister in respect of expenditure for debt charges on debentures issued by the board, or on its behalf, on a secondary school building that is being used jointly by a public board and a Roman Catholic school board; and
- (b) the lesser of the amounts determined by the following calculations:

(i) $A - (0.000097 \times E.A.)$, or zero if such calculation is negative, and

(ii) $A - \left(\frac{A}{B \times 25} \times MR1 \times E.A. \right)$, or zero if such calculation is negative,

where,

$$A = A^1 + A^2 - A^3 - A^4$$

A^1 = the portion acceptable to the Minister in respect of expenditure for debt charges on debentures issued by the board, or on its behalf, prior to the 1st day of April, 1980 that is not approved by the Minister for inclusion in R.E.E.,

A^2 = in the case of a Roman Catholic school board, the portion acceptable to the Minister in respect of payments made to a public board or a diocese in respect of debt charges on debentures related to a lease or purchase of a school building,

A^3 = the portion of the debt charges included in A^1 that is in respect of debt charges described in clause (a),

A^4 = in the case of a public board, the portion acceptable to the Minister in respect of payments received from a Roman Catholic school board in respect of debt charges on debentures related to a lease or purchase of a school building,

B = days school A.D.E. of resident-internal pupils of the board. O. Reg. 86/91, s. 44.

Special Compensation for Pooling

45. A public board set out in Column 1 of Table 1 shall be paid a grant in the amount set out opposite in Column 2 of Table 1 in respect of the assessment and tax adjustments effected by Ontario Regulation 723/89 and Ontario Regulation 724/89. O. Reg. 86/91, s. 45.

Grant for an Isolate Board

46. For the purpose of section 47,

"local taxation for grant purposes" means, the sum of,

- (a) the payment in lieu of taxes receivable by the isolate board,
- (b) the portion of tax levied under subsections 161(12) and (13) of the *Municipal Act* that is allocated or paid to the isolate board, and
- (c) the sum of the products obtained by multiplying, for each municipality or locality within the area of jurisdiction of the isolate board,
 - (i) the quotient obtained by dividing the product of 100 and the assessment by the A.E.F. for grant purposes, and
 - (ii) .006030 for elementary school purposes, or .004850 for secondary school purposes,

except where the municipality or locality is within the area of jurisdiction of a divisional board of education or a district or county combined separate school board, in which case the amount determined for the municipality or locality for the purpose of this clause shall be the product of the assessment for the municipality or locality, 0.001 and the mill rate levied on residential property in the municipality or locality for elementary or secondary school purposes, as the case may be, in respect of such divisional board or district or county separate school board;

"net expenditure" means, the positive or negative sum obtained by

subtracting from the isolate board's expenditure that is acceptable to the Minister, an amount that is acceptable to the Minister as revenue of the isolate board from grant payable under sections 31 to 35 inclusive and from sources other than local taxation and legislative grants. O. Reg. 86/91, s. 46.

47.—(1) Where, in respect of an isolate board except an isolate board referred to in subsection (3), the net expenditure exceeds the local taxation for grant purposes, a grant equal to such excess shall be paid to the isolate board.

(2) Where, in respect of an isolate board except an isolate board referred to in subsection (3), the local taxation for grant purposes exceeds the net expenditure, a portion of the legislative grants paid to the isolate board in previous years equal to such excess shall be paid by the isolate board to the Province of Ontario.

(3) Where in the year 1991,

- (a) a district school area board is elected for a new district school area, a secondary school board is formed for a new secondary school district or a separate school board is elected for a new separate school zone;
- (b) information respecting the totals of the commercial assessment and of the residential and farm assessment rateable for public school purposes in the district school area, for secondary school purposes in the secondary school district or for separate school purposes in the separate school zone, as the case may be, is not available prior to the 1st day of July; and
- (c) such isolate board commences to operate a school on or after the 1st day of July or enters into an agreement with another board for the education in such year of its resident pupils,

the isolate board shall be paid a grant equal to its net expenditure. O. Reg. 86/91, s. 47.

Grant for a Board on Tax Exempt Land

48. For the purposes of sections 49 and 50, "cost of operating" means the excess of,

- (a) the current expenditure that is acceptable to the Minister for grant purposes excluding expenditure for debt charges, capital appurtenances, restoration of destroyed and damaged capital appurtenances, capital element included in rent, provision for a reserve for working funds, provisions for reserve funds and P.A.C. for resident-external pupils,

over the sum of,

- (b) current revenue from sources other than from,
 - (i) legislative grants,
 - (ii) the organization for which the board was established, and
 - (iii) refunds of expenditure, no part of which is eligible for grant; and
- (c) the excess of current expenditure for,
 - (i) transportation of pupils, and
 - (ii) board, lodging and weekly transportation of pupils,

over, in each case the amount approved by the Minister for such purpose. O. Reg. 86/91, s. 48.

49. A board that is appointed under section 70 of the Act, other than a board that operates a school in a sanatorium, a hospital, a crippled children's treatment centre or a centre for the treatment of cerebral palsy, shall be paid a grant of 50 per cent of the lesser of,

- (a) the board's cost of operating; and

CATEGORY 4 — CAPITAL GRANTS

Capital Projects Grants

51.—(1) A board shall be paid a grant in respect of each project of the board for the acquisition of capital appurtenances that is approved by the Minister for direct capital grant financing, calculated as follows,

$$A - \left(\frac{A}{100 \times B} \times C \times E.A. \right)$$

where,

A = the lesser of the project cost approved by the Minister for grant purposes and the expenditure of the board that is the sum of,

- (i) current expenditure on the project, and
- (ii) expenditure on the project in 1991 and prior years from funds other than current revenue except expenditure for which a grant is payable under a previous regulation,

B = the sum of,

- (i) the day school A.D.E. of resident-internal pupils of the board, and
- (ii) the day school A.D.E. of resident-external pupils of the board,

C = the amount determined as follows,

- (i) .000010 in respect of a project for provision of a secondary school, or an addition thereto, operated under Part XI of the Act, or
- (ii) .000077 in respect of a growth related project for the provision of a secondary school, or an addition thereto, or a secondary school site approved by the Minister on or after April 20, 1989 and is a project other than a project referred to in (i) above, or
- (iii) .000144 in respect of a growth related project for the provision of an elementary school, or an addition thereto, or an elementary school site approved by the Minister on or after April 20, 1989, or
- (iv) zero in respect of a project for the provision of a child care centre, or
- (v) .000048 in respect of other projects for secondary school purposes, or
- (vi) .000090 in respect of other projects for elementary school purposes.

(2) A board shall be paid, in respect of each project of the board approved by the Minister for grant purposes for the renewal of technological equipment, a grant equal to the lesser of \$12,500 and the amount approved by the Minister as contributions made by business, industry and labour to the board for such project. O. Reg. 86/91, s. 51.

(b) the sum of,

(i) the product of \$3,823 in the case of an elementary school pupil or \$4,725 in the case of a secondary school pupil and the sum of,

(A) the A.D.E. calculated under section 2 of Ontario Regulation 89/91 (Calculation of Average Daily Enrolment),

(B) the continuing education A.D.E. for grant purposes,

(C) the A.D.E. calculated under section 3 of Ontario Regulation 89/91 (Calculation of Average Daily Enrolment) that is in respect of enrolment of pupils of the board in summer schools conducted by the board in a course for which credit is granted or in a course that the board is authorized or required to provide in its day school program in grades 1 to 8, and the course is approved by the Minister for grant purposes, and

(D) the A.D.E. calculated under clause 3 (a) of Ontario Regulation 89/91 (Calculation of Average Daily Enrolment) that is in respect of enrolment of pupils of the board in the classroom instruction portion of a course of driver education conducted by the board,

(ii) the tuition fees payable by the board,

(iii) the portion approved by the Minister for grant purposes of the board's expenditure for the transportation of pupils. O. Reg. 86/91, s. 49.

50. A board that is appointed under section 70 of the Act and that operates a school in a sanatorium, a hospital, a crippled children's treatment centre or a centre for the treatment of cerebral palsy shall be paid a grant of,

(a) 80 per cent of the salaries of teachers and temporary teachers for the current year;

(b) 80 per cent of the expenditure for the current year approved by the Minister for grant purposes for transportation of pupils, and board, lodging and weekly transportation of pupils; and

(c) 50 per cent of the excess of,

(i) the sum of the cost of operating for the current year and the revenue for the current year referred to in clause 48 (b),

over,

(ii) expenditure for the current year for,

(A) salaries of teachers and temporary teachers,

(B) transportation of pupils, and

(C) board, lodging and weekly transportation of pupils. O. Reg. 86/91, s. 50.

TABLE 1

SPECIAL COMPENSATION FOR POOLING

Column 1	Column 2	Column 1	Column 2
<u>BOARDS OF EDUCATION</u>	<u>SPECIAL COMPENSATION</u>	<u>BOARDS OF EDUCATION</u>	<u>SPECIAL COMPENSATION</u>
Espanola		Kapuskasing	
— Elementary Schools	20,260	— Elementary Schools	57,575
— Secondary Schools	—	— Secondary Schools	45,065
Hamilton		Metropolitan Toronto	
— Elementary Schools	561,853	— Elementary Schools	2,361,583
— Secondary Schools	360,238	— Secondary Schools	3,438,808

TABLE 1
SPECIAL COMPENSATION FOR POOLING

Column 1	Column 2	Column 1	Column 2
<u>BOARDS OF EDUCATION</u>	<u>SPECIAL COMPENSATION</u>	<u>BOARDS OF EDUCATION</u>	<u>SPECIAL COMPENSATION</u>
Sault Ste. Marie		Timmins	
— Elementary Schools	136,030	— Elementary Schools	200,026
— Secondary Schools	75,347	— Secondary Schools	184,140
Stormont, Dundas and Glengarry		Windsor	
— Elementary Schools	58,836	— Elementary Schools	53,557
— Secondary Schools	77,896	— Secondary Schools	232,720
Sudbury		York County	
— Elementary Schools	214,574	— Elementary Schools	62,129
— Secondary Schools	215,817	— Secondary Schools	153,302

O. Reg. 86/91, Table 1.

TABLE 2
1991 SELECTED GRANTS (\$'S PER PUPIL)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<u>BOARDS OF EDUCATION</u>	<u>SMALL SCHOOLS</u>	<u>SMALL BOARD</u>	<u>SMALL SECTIONS</u>	<u>GOODS & SERVICES</u>	<u>COMP. EDUCATION</u>	<u>LANGUAGE INSTRUCTION</u>	<u>MIXED SCHOOLS</u>	<u>TECHNICAL EDUCATION</u>	<u>TOTAL</u>	<u>QUALIFICATIONS & EXPERIENCE</u>
ATIKOKAN										
Elementary	-	371.60	-	348.81	105.00	-	-	-	825.41	63.83
Secondary	1,130.01	567.90	-	444.68	66.00	-	-	153.26	2,361.85	-
BRANT										
Elementary	-	-	-	-	-	-	-	-	-	74.52
Secondary	-	-	-	-	-	6.57	-	-	6.57	37.98
BRUCE										
Elementary	7.92	-	-	8.40	-	-	-	-	16.32	-
Secondary	102.01	49.48	-	10.00	-	-	-	-	161.49	48.16
CARLETON										
Elementary	-	-	-	-	-	-	-	-	-	20.00
Secondary	-	-	-	-	-	40.27	-	-	40.27	-
CENTRAL ALGOMA										
Elementary	35.44	133.58	-	329.10	105.00	-	-	-	603.12	213.69
Secondary	-	220.83	-	419.90	66.00	-	-	257.85	964.58	71.55
CHAPLEAU										
Elementary	-	604.41	-	344.30	105.00	-	-	-	1,053.71	-
Secondary	1,471.93	445.95	509.74	434.98	66.00	-	1,496.67	42.74	4,468.01	13.06
COCHRANE IROQUOIS FALLS										
Elementary	-	146.66	-	340.72	105.00	-	-	-	592.38	39.45
Secondary	257.81	210.70	65.50	431.73	66.00	-	330.55	80.41	1,442.70	132.79
DRYDEN										
Elementary	131.57	84.39	-	348.81	175.00	-	-	-	739.77	27.67
Secondary	370.47	154.51	-	444.68	112.00	-	-	-	1,081.66	-
DUFFERIN										
Elementary	-	17.14	-	-	-	-	-	-	17.14	2.19
Secondary	-	101.34	-	-	-	-	-	27.95	129.29	-
DURHAM										
Elementary	-	-	-	-	-	-	-	-	-	-
Secondary	-	-	-	-	-	-	-	-	-	-
EAST PARRY SOUND										
Elementary	94.25	77.53	-	285.39	69.00	-	-	-	526.17	-
Secondary	-	180.24	-	363.83	44.00	-	-	44.21	632.28	-
ELGIN										
Elementary	-	-	-	-	-	10.43	-	-	10.43	-
Secondary	8.12	14.04	-	-	-	-	-	4.61	26.77	-
ESPANOLA										
Elementary	77.29	159.69	-	285.39	105.00	-	-	-	627.37	14.52
Secondary	-	202.42	30.65	363.83	66.00	-	47.62	-	710.52	11.31
ESSEX										
Elementary	8.67	-	-	-	-	-	-	-	8.67	63.56
Secondary	-	-	-	-	-	-	-	-	-	128.53
FORT FRANCES RAINY RIVER										
Elementary	81.43	108.39	-	348.81	105.00	-	-	-	643.63	48.22
Secondary	258.89	168.16	-	444.68	66.00	-	-	63.49	1,001.22	36.96
FRONTENAC										
Elementary	30.92	-	4.49	5.70	69.00	-	-	-	110.11	63.77
Secondary	31.55	-	8.32	7.21	44.00	-	11.67	0.15	102.90	124.78
GERALDTON										
Elementary	507.07	295.08	-	348.81	105.00	-	-	-	1,255.96	195.88
Secondary	1,177.11	270.45	140.29	444.68	66.00	-	-	155.26	2,253.79	-
GREY										
Elementary	-	-	-	-	-	-	-	-	-	8.49
Secondary	-	2.24	-	0.10	-	-	-	-	2.34	61.04

TABLE 2
1991 SELECTED GRANTS (\$'S PER PUPIL)

(1)	(2) SMALL SCHOOLS	(3) SMALL BOARD	(4) SMALL SECTIONS	(5) GOODS & SERVICES	(6) COMP. EDUCATION	(7) LANGUAGE INSTRUCTION	(8) MIXED SCHOOLS	(9) TECHNICAL EDUCATION	(10) TOTAL	(11) QUALIFICATIONS & EXPERIENCE
BOARDS OF EDUCATION										
HALDIMAND										
Elementary	-	18.43	-	-	-	-	-	-	18.43	-
Secondary	-	89.35	-	-	-	-	-	-	89.35	-
HAUBURTON										
Elementary	115.36	128.73	-	189.95	69.00	-	-	-	503.04	-
Secondary	2.05	258.18	-	241.92	44.00	-	-	46.49	592.64	-
HALTON										
Elementary	-	-	-	-	-	72.64	-	-	72.64	-
Secondary	-	-	-	-	-	45.35	-	-	45.35	29.50
HAMILTON										
Elementary	-	-	-	-	140.00	28.21	-	-	168.21	16.99
Secondary	13.48	-	1.68	-	89.00	40.21	-	1.98	146.35	61.92
HASTINGS										
Elementary	16.21	-	-	7.90	-	-	-	-	24.11	-
Secondary	-	-	-	9.97	-	-	-	-	9.97	89.87
HEARST										
Elementary	-	487.29	-	348.81	105.00	-	-	-	941.10	-
Secondary	2,738.12	1,044.61	-	444.68	66.00	-	-	-	4,293.41	160.06
HORNEPAYNE										
Elementary	-	705.44	-	348.81	105.00	-	-	-	1,159.25	-
Secondary	2,366.86	1,145.48	-	444.68	66.00	-	-	298.04	4,321.06	-
HURON										
Elementary	6.03	-	-	-	-	-	-	-	6.03	95.06
Secondary	-	48.57	-	-	-	-	-	0.24	48.81	38.66
KAPUSKASING										
Elementary	192.27	278.22	-	347.80	105.00	-	-	-	923.29	-
Secondary	548.30	284.93	97.33	439.07	66.00	-	83.75	44.67	1,564.05	-
KENORA										
Elementary	49.01	122.11	-	348.81	175.00	-	-	-	694.93	127.67
Secondary	-	185.77	-	442.55	112.00	-	-	-	740.32	44.09
KENT										
Elementary	0.75	-	-	-	-	-	-	-	0.75	138.62
Secondary	-	-	-	-	-	-	-	-	-	154.64
KIRKLAND LAKE										
Elementary	237.51	164.94	-	321.24	69.00	-	-	-	792.69	137.80
Secondary	399.41	203.77	61.31	406.28	44.00	-	-	3.85	1,118.62	64.05
LAKE SUPERIOR										
Elementary	-	122.30	-	348.81	105.00	-	-	-	576.11	-
Secondary	811.89	195.48	20.33	443.39	66.00	-	58.65	43.39	1,639.13	-
LAKEHEAD										
Elementary	15.46	-	-	209.53	105.00	-	-	-	329.99	213.69
Secondary	-	-	-	264.90	66.00	-	-	-	330.90	226.19
LAMBTON										
Elementary	8.67	-	-	-	-	-	-	-	8.67	40.27
Secondary	30.98	-	8.63	-	-	8.68	21.14	-	69.43	51.38
LANARK										
Elementary	1.13	-	-	-	69.00	-	-	-	70.13	-
Secondary	-	70.77	-	-	44.00	-	-	-	114.77	44.42
LEEDS & GRENVILLE										
Elementary	24.88	-	-	-	-	-	-	-	24.88	62.19
Secondary	34.58	2.48	-	-	-	-	-	-	37.06	144.47
LENNOX & ADDINGTON										
Elementary	65.98	22.11	-	10.00	-	-	-	-	98.09	-
Secondary	87.90	109.33	-	10.00	-	-	-	8.55	215.78	87.83

TABLE 2
1991 SELECTED GRANTS (\$'S PER PUPIL)

(1)	(2) SMALL SCHOOLS	(3) SMALL BOARD	(4) SMALL SECTIONS	(5) GOODS & SERVICES	(6) COMP. EDUCATION	(7) LANGUAGE INSTRUCTION	(8) MIXED SCHOOLS	(9) TECHNICAL EDUCATION	(10) TOTAL	(11) QUALIFICATIONS & EXPERIENCE
BOARDS OF EDUCATION										
LINCOLN										
Elementary	-	-	-	-	69.00	-	-	-	69.00	116.71
Secondary	-	-	-	-	44.00	-	-	-	44.00	110.89
LONDON										
Elementary	-	-	1.53	-	69.00	34.24	-	-	104.77	34.86
Secondary	-	-	3.39	-	44.00	113.02	7.39	36.89	204.69	9.92
MANITOULIN										
Elementary	55.04	160.11	-	297.50	175.00	-	-	-	687.65	-
Secondary	-	233.60	-	378.36	112.00	-	-	51.03	774.99	34.93
METRO TORONTO										
Elementary	-	-	-	-	140.00	120.02	-	-	260.02	-
Secondary	-	-	-	-	89.00	271.46	-	-	360.46	-
MICHIPICOTEN										
Elementary	-	393.15	-	347.06	105.00	-	-	-	845.21	69.86
Secondary	1,293.85	293.70	198.45	435.83	66.00	-	-	54.60	2,342.43	31.98
MIDDLESEX										
Elementary	10.93	-	-	-	-	-	-	-	10.93	62.46
Secondary	39.76	49.68	-	-	-	-	-	11.53	100.97	54.94
MUSKOKA										
Elementary	54.29	1.68	-	189.95	69.00	-	-	-	314.92	-
Secondary	-	99.93	-	241.92	44.00	-	-	47.26	433.11	-
NIAGARA SOUTH										
Elementary	-	-	-	-	69.00	-	-	-	69.00	113.19
Secondary	12.16	-	-	-	44.00	1.23	-	10.16	67.55	204.27
NIPIGON-RED ROCK										
Elementary	95.76	232.39	-	348.81	105.00	-	-	-	781.96	-
Secondary	802.15	427.93	-	444.68	66.00	-	-	129.29	1,870.05	-
NIPISSING										
Elementary	34.31	-	8.52	189.95	69.00	-	-	-	301.78	87.44
Secondary	70.71	32.15	14.04	241.92	44.00	14.53	29.32	-	446.67	73.59
NORFOLK										
Elementary	1.51	-	-	-	-	12.88	-	-	14.39	-
Secondary	-	55.48	-	-	-	-	-	-	55.48	-
NORTH SHORE										
Elementary	56.17	100.29	-	302.20	105.00	-	-	-	563.66	38.90
Secondary	244.95	124.85	12.48	381.96	66.00	-	-	3.38	833.62	17.56
NORTHUMBERLAND & NEWCASTLE										
Elementary	-	-	-	-	-	-	-	-	-	-
Secondary	-	-	-	-	-	-	-	-	-	-
OTTAWA										
Elementary	-	-	-	-	105.00	129.57	-	-	234.57	-
Secondary	-	-	-	-	66.00	88.23	-	-	154.23	-
OXFORD										
Elementary	-	-	-	-	-	-	-	-	-	9.04
Secondary	-	-	-	-	-	-	-	-	-	44.42
PEEL										
Elementary	-	-	-	-	-	152.06	-	-	152.06	5.75
Secondary	-	-	-	-	-	138.06	-	-	138.06	52.56
PERTH										
Elementary	-	-	-	-	-	-	-	-	-	-
Secondary	-	29.21	-	-	-	-	-	-	29.21	73.25
PETERBOROUGH										
Elementary	4.15	-	-	-	-	-	-	-	4.15	-
Secondary	16.67	-	-	-	-	-	-	-	16.67	26.79

TABLE 2
1991 SELECTED GRANTS (\$'S PER PUPIL)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	SMALL SCHOOLS	SMALL BOARD	SMALL SECTIONS	GOODS & SERVICES	COMP. EDUCATION	LANGUAGE INSTRUCTION	MIXED SCHOOLS	TECHNICAL EDUCATION	TOTAL	QUALIFICATIONS & EXPERIENCE
BOARDS OF EDUCATION										
PRESCOTT & RUSSELL										
Elementary	-	104.41	24.79	0.92	69.00	-	-	-	199.12	-
Secondary	450.15	221.28	-	8.90	44.00	-	-	-	724.33	8.14
PRINCE EDWARD										
Elementary	25.26	87.78	-	10.00	-	-	-	-	123.04	82.46
Secondary	-	206.29	-	10.00	-	-	-	9.28	225.57	11.87
RED LAKE										
Elementary	-	183.15	-	348.81	175.00	-	-	-	706.96	-
Secondary	388.76	301.69	-	444.68	112.00	-	-	-	1,247.13	-
RENFREW										
Elementary	50.90	-	-	1.73	69.00	-	-	-	121.63	-
Secondary	73.42	-	11.72	5.24	44.00	-	-	29.52	163.90	145.95
SAULT STE MARIE										
Elementary	33.18	-	-	224.82	105.00	-	-	-	363.00	201.09
Secondary	-	7.16	-	283.94	66.00	-	-	83.49	440.59	206.18
SIMCOE										
Elementary	1.89	-	-	-	-	-	-	-	1.89	98.53
Secondary	13.40	-	3.72	-	-	-	-	1.96	19.08	91.98
STORMONT DUNDAS GLENGARRY										
Elementary	26.39	-	-	-	69.00	-	-	-	95.39	29.04
Secondary	-	-	11.40	-	44.00	4.94	34.65	-	94.99	158.38
SUDBURY										
Elementary	36.57	-	-	189.95	105.00	-	-	-	331.52	109.50
Secondary	36.24	-	-	241.92	66.00	-	40.88	19.21	404.25	275.27
TIMISKAMING										
Elementary	130.82	101.31	-	294.31	69.00	-	-	-	595.44	27.94
Secondary	134.49	154.47	-	374.21	44.00	-	-	-	707.17	29.16
TIMMINS										
Elementary	27.90	70.66	17.07	232.16	105.00	-	-	-	452.79	95.89
Secondary	-	142.83	-	295.68	66.00	-	-	35.35	539.86	78.00
VICTORIA										
Elementary	47.50	-	-	-	-	-	-	-	47.50	-
Secondary	-	66.68	-	-	-	-	-	7.36	74.04	-
WATERLOO										
Elementary	0.75	-	-	-	69.00	30.80	-	-	100.55	73.42
Secondary	-	-	-	-	44.00	36.87	-	8.63	89.50	50.19
WELLINGTON										
Elementary	0.38	-	-	-	-	-	-	-	0.38	32.60
Secondary	-	-	-	-	-	43.24	-	35.04	78.28	71.55
WENTWORTH										
Elementary	-	-	-	-	-	-	-	-	-	-
Secondary	-	-	-	-	-	-	-	-	-	184.82
WEST PARRY SOUND										
Elementary	121.77	106.75	-	285.39	69.00	-	-	-	582.91	31.23
Secondary	-	196.01	-	363.83	44.00	-	-	96.94	700.78	91.22
WINDSOR										
Elementary	-	-	-	-	140.00	25.15	-	-	165.15	261.63
Secondary	-	-	-	-	89.00	34.09	-	-	123.09	227.89
YORK REGION										
Elementary	-	-	-	-	-	100.45	-	-	100.45	-
Secondary	-	-	-	-	-	46.96	-	-	46.96	-

TABLE 2
1991 SELECTED GRANTS (\$'S PER PUPIL)

(1)	(2) SMALL SCHOOLS	(3) SMALL BOARD	(4) SMALL SECTIONS	(5) GOODS & SERVICES	(6) COMP. EDUCATION	(7) LANGUAGE INSTRUCTION	(8) MIXED SCHOOLS	(9) TECHNICAL EDUCATION	(10) TOTAL	(11) QUALIFICATIONS & EXPERIENCE
ROMAN CATHOLIC SEPARATE SCHOOL BOARDS										
BRANT										
Elementary	57.31	49.66	13.94	-	-	-	-	-	120.91	21.08
Secondary	-	153.20	-	-6.57	-	22.18	-	-	181.95	-
BRUCE-GREY										
Elementary	44.49	59.12	-	10.00	-	-	-	-	113.61	-
Secondary	233.62	209.71	-	10.00	-	-	-	-	453.33	-
CARLETON										
Elementary	-	-	-	-	-	2.49	-	-	2.49	-
Secondary	-	-	-	5.94	-	13.43	-	-	19.37	-
CHAPLEAU, PANET & CAVERLY										
Elementary	274.83	287.76	216.23	340.13	105.00	-	-	-	1,223.95	-
Secondary	-	-	-	-	-	-	-	-	-	-
COCHRANE-IROQUOIS FALLS										
Elementary	154.95	132.74	20.61	341.60	105.00	8.47	-	-	763.37	-
Secondary	1,324.69	496.28	-	434.93	66.00	-	-	-	2,321.90	-
DRYDEN										
Elementary	-	223.69	-	348.81	175.00	-	-	-	747.50	-
Secondary	-	-	-	-	-	-	-	-	-	-
DUFFERIN-PEEL										
Elementary	-	-	-	-	-	97.87	-	-	97.87	23.34
Secondary	5.05	-	3.51	-	-	33.69	-	-	42.25	12.27
DURHAM										
Elementary	4.90	-	-	-	-	67.72	-	-	72.62	35.08
Secondary	53.15	40.57	14.76	-	-	40.96	-	-	149.44	-
ELGIN										
Elementary	-	128.12	-	2.79	-	-	-	-	130.91	-
Secondary	589.41	446.09	-	-	-	34.17	-	-	1,069.67	-
ESSEX										
Elementary	5.66	-	-	-	-	-	-	-	5.66	83.92
Secondary	-	59.12	-	3.29	-	-	12.15	-	74.56	-
FORT FRANCES RAINY RIVER										
Elementary	119.51	208.18	-	348.81	105.00	-	-	-	781.50	-
Secondary	-	-	-	-	-	-	-	-	-	-
FRONTENAC-LENNOX & ADDINGTON										
Elementary	52.40	21.00	9.19	9.17	63.00	-	-	-	154.76	26.17
Secondary	75.18	136.07	31.17	10.00	39.00	6.49	-	-	297.91	9.79
GERALDTON										
Elementary	377.00	228.61	161.10	348.81	105.00	-	-	-	1,220.52	-
Secondary	-	-	-	-	-	-	-	-	-	-
HALDIMAND-NORFOLK										
Elementary	114.23	74.60	17.78	0.75	-	-	-	-	207.36	11.82
Secondary	-	-	-	-	-	-	-	-	-	-
HALTON										
Elementary	7.92	-	-	-	-	-	-	-	7.92	27.41
Secondary	-	33.65	-	-	-	2.11	-	-	35.76	-
HAMILTON-WENTWORTH										
Elementary	-	-	-	-	118.00	36.81	-	-	154.81	26.22
Secondary	-	-	-	-	75.00	-	-	-	75.00	-
HASTINGS PRINCE EDWARD										
Elementary	120.64	45.11	-	11.55	3.00	-	-	-	180.30	-
Secondary	-	164.05	-	13.86	2.00	-	-	-	179.91	-
HEARST										
Elementary	35.06	144.31	-	346.24	105.00	-	-	-	630.61	-
Secondary	285.46	280.92	-	431.70	66.00	-	-	79.38	1,143.46	-

TABLE 2
1991 SELECTED GRANTS (\$'S PER PUPIL)

(1)	(2) SMALL SCHOOLS	(3) SMALL BOARD	(4) SMALL SECTIONS	(5) GOODS & SERVICES	(6) COMP. EDUCATION	(7) LANGUAGE INSTRUCTION	(8) MIXED SCHOOLS	(9) TECHNICAL EDUCATION	(10) TOTAL	(11) QUALIFICATIONS & EXPERIENCE
ROMAN CATHOLIC SEPARATE SCHOOL BOARDS										
HURON-PERTH										
Elementary	61.83	62.06	-	5.51	-	-	-	-	129.40	-
Secondary	213.13	280.71	-	10.00	-	-	-	-	503.84	-
KAPUSKASING										
Elementary	99.15	101.16	19.57	340.46	105.00	-	-	-	665.34	50.85
Secondary	214.09	224.45	-	437.24	66.00	-	-	71.43	1,013.21	-
KENORA										
Elementary	-	166.35	-	348.81	175.00	-	-	-	690.16	-
Secondary	1,170.99	851.40	-	444.68	112.00	-	-	-	2,579.07	-
KENT										
Elementary	40.34	-	-	-	-	-	-	-	40.34	30.96
Secondary	155.79	168.98	43.27	-	-	-	-	-	368.04	-
KIRKLAND LAKE										
Elementary	222.06	151.29	-	320.16	69.00	-	-	-	762.51	101.29
Secondary	-	-	-	-	-	-	-	-	-	-
LAKEHEAD										
Elementary	-	-	7.85	209.53	105.00	37.56	-	-	359.94	177.69
Secondary	-	145.39	34.13	265.49	66.00	10.91	86.88	-	608.80	3.32
LAMBTON										
Elementary	4.52	-	4.77	-	-	-	-	-	9.29	65.16
Secondary	93.55	140.34	32.48	5.74	-	-	-	-	272.11	-
LANARK-LEEDS GRENVILLE										
Elementary	58.06	36.92	-	4.83	31.00	-	-	-	130.81	-
Secondary	775.94	271.03	-	2.07	18.00	-	-	-	1,067.04	-
LINCOLN										
Elementary	-	-	3.15	-	69.00	-	-	-	72.15	62.98
Secondary	-	97.07	-	-	44.00	-	-	-	141.07	-
LONDON-MIDDLESEX										
Elementary	7.92	-	2.20	-	55.00	20.57	-	-	85.69	4.02
Secondary	33.98	40.42	14.75	-	34.00	41.88	-	-	165.03	-
METRO SEPARATE										
Elementary	-	-	-	-	140.00	124.79	-	-	264.79	12.87
Secondary	7.26	-	1.68	-	89.00	87.71	-	-	185.65	7.93
MICHIPICOTEN										
Elementary	144.01	228.61	138.43	343.83	105.00	-	-	-	959.88	-
Secondary	-	-	-	-	-	-	-	-	-	-
NIPISSING										
Elementary	85.20	-	-	189.95	69.00	-	-	-	344.15	112.31
Secondary	64.74	95.01	-	241.92	44.00	-	-	-	445.67	176.79
NORTH OF SUPERIOR										
Elementary	772.48	152.85	43.76	348.81	105.00	-	-	-	1,422.90	-
Secondary	-	-	-	-	-	-	-	-	-	-
NORTH SHORE										
Elementary	63.72	85.41	-	305.06	105.00	-	-	-	559.19	62.20
Secondary	-	-	-	-	-	-	-	-	-	-
OTTAWA										
Elementary	-	-	-	-	105.00	28.11	-	-	133.11	-
Secondary	-	103.86	-	-	66.00	113.10	-	-	282.96	-
OXFORD										
Elementary	119.51	103.98	24.67	0.32	-	-	-	-	248.48	20.18
Secondary	683.29	344.03	234.49	-	-	-	-	-	1,261.81	15.42
PETERBOROUGH VICTORIA NORTHUMBERLAND & NEWCASTLE										
Elementary	18.47	-	-	-	-	-	-	-	18.47	-
Secondary	219.24	146.60	-	7.30	-	20.11	-	-	393.25	-

TABLE 2
1991 SELECTED GRANTS (\$'S PER PUPIL)

(1)	(2) SMALL SCHOOLS	(3) SMALL BOARD	(4) SMALL SECTIONS	(5) GOODS & SERVICES	(6) COMP. EDUCATION	(7) LANGUAGE INSTRUCTION	(8) MIXED SCHOOLS	(9) TECHNICAL EDUCATION	(10) TOTAL	(11) QUALIFICATIONS & EXPERIENCE
<u>ROMAN CATHOLIC SEPARATE SCHOOL BOARDS</u>										
PRESCOTT & RUSSELL										
Elementary	56.93	-	0.09	-	69.00	-	-	-	126.02	2.09
Secondary	14.40	84.85	20.00	10.00	44.00	-	-	-	173.25	91.00
RENFREW										
Elementary	125.16	23.34	6.14	5.37	69.00	-	-	-	229.01	51.83
Secondary	255.67	219.40	17.68	9.32	44.00	-	29.65	-	575.72	50.56
SAULT STE MARIE										
Elementary	-	-	-	224.82	105.00	-	-	-	329.82	184.52
Secondary	163.67	133.45	30.40	284.49	66.00	-	-	-	678.01	149.65
SIMCOE										
Elementary	33.93	-	-	5.67	-	-	-	-	39.60	-
Secondary	212.02	106.14	-	7.56	-	-	-	-	325.72	-
STORMONT DUNDAS GLENGARRY										
Elementary	62.96	-	-	-	69.00	-	-	-	131.96	-
Secondary	67.77	117.81	-	5.24	44.00	-	-	-	234.82	-
SUDBURY										
Elementary	35.82	-	-	189.95	105.00	-	-	-	330.77	57.56
Secondary	-	25.05	-	241.92	66.00	-	-	-	332.97	55.21
TIMISKAMING										
Elementary	45.99	119.01	9.02	288.26	69.00	-	-	-	531.28	86.06
Secondary	243.52	277.24	-	365.15	44.00	-	-	-	929.91	169.22
TIMMINS										
Elementary	-	34.16	-	232.16	105.00	-	-	-	371.32	48.80
Secondary	100.04	142.54	10.49	295.68	66.00	-	-	75.59	690.34	-
WATERLOO										
Elementary	7.92	-	1.01	-	69.00	-	-	-	77.93	22.13
Secondary	-	-	-	-	44.00	-	-	-	44.00	-
WELLAND										
Elementary	14.33	-	-	-	69.00	-	-	-	83.33	160.69
Secondary	-	72.86	1.09	-	44.00	-	-	-	117.95	-
WELLINGTON										
Elementary	26.01	25.36	11.35	-	-	0.10	-	-	62.82	27.30
Secondary	-	147.55	-	-	-	-	-	-	147.55	-
WINDSOR										
Elementary	-	-	-	-	140.00	5.03	-	-	145.03	161.48
Secondary	7.99	-	11.10	-	89.00	-	-	-	108.09	-
YORK										
Elementary	-	-	-	-	-	46.66	-	-	46.66	19.36
Secondary	-	-	1.75	1.01	-	9.57	2.81	-	15.14	-
<u>OTTAWA-CARLETON FRENCH LANGUAGE SCHOOL BOARD</u>										
PUBLIC SECTOR										
Elementary	-	100.55	-	-	52.00	-	-	-	152.55	-
Secondary	-	90.86	-	-	33.00	-	-	-	123.86	2.71
ROMAN CATHOLIC SECTOR										
Elementary	-	-	-	-	52.00	-	-	-	52.00	3.56
Secondary	-	80.32	-	-	33.00	-	-	-	113.32	-

TABLE 3
TRANSPORTATION

(1)	(2) 1991 PER PUPIL AMOUNT JULY-DEC	(3) ESTIMATED 1990 TRANSPORTATION GRANT	(1)	(2) 1991 PER PUPIL AMOUNT JULY-DEC	(3) ESTIMATED 1990 TRANSPORTATION GRANT
BOARDS OF EDUCATION			BOARDS OF EDUCATION		
ATIKOKAN			HURON		
Elementary	163.43	162,778	Elementary	113.58	1,806,710
Secondary	169.18	70,040	Secondary	129.74	1,358,080
BRANT			KAPUSKASING		
Elementary	54.00	1,510,147	Elementary	169.67	298,222
Secondary	84.73	701,717	Secondary	202.53	325,627
BRUCE			KENORA		
Elementary	116.63	2,377,346	Elementary	124.92	500,678
Secondary	132.66	1,666,289	Secondary	134.92	330,249
CARLETON			KENT		
Elementary	57.76	7,461,056	Elementary	90.78	1,603,349
Secondary	87.73	4,752,607	Secondary	103.41	1,052,063
CENTRAL ALGOMA			KIRKLAND LAKE		
Elementary	148.36	653,908	Elementary	166.94	336,302
Secondary	163.75	912,078	Secondary	176.79	358,856
CHAPLEAU			LAKE SUPERIOR		
Elementary	178.66	62,153	Elementary	122.63	219,734
Secondary	180.38	44,889	Secondary	134.13	94,886
COCHRANE / ROQUOIS FALLS			LAKEHEAD		
Elementary	179.72	666,882	Elementary	110.62	3,747,426
Secondary	205.22	886,865	Secondary	124.58	1,748,436
DRYDEN			LAMBTON		
Elementary	133.12	987,081	Elementary	89.69	1,429,978
Secondary	146.17	451,936	Secondary	99.78	1,534,248
DUFFERIN			LANARK		
Elementary	96.99	1,079,924	Elementary	113.74	2,389,131
Secondary	112.37	744,202	Secondary	129.24	1,022,924
DURHAM			LEEDS & GRENVILLE		
Elementary	38.44	4,807,471	Elementary	103.98	2,608,529
Secondary	49.47	3,818,788	Secondary	116.78	1,783,563
EAST PARRY SOUND			LENNOX & ADDINGTON		
Elementary	144.27	1,269,214	Elementary	120.42	1,677,645
Secondary	162.07	1,696,570	Secondary	139.42	1,308,547
ELGIN			LINCOLN		
Elementary	86.01	1,787,486	Elementary	38.32	2,106,873
Secondary	100.02	891,042	Secondary	43.24	1,464,563
ESPANOLA			LONDON		
Elementary	143.55	482,574	Elementary	5.29	3,229,550
Secondary	145.55	489,549	Secondary	4.60	1,183,444
ESSEX			MANITOULIN		
Elementary	76.14	1,995,431	Elementary	184.39	510,039
Secondary	69.51	2,067,109	Secondary	166.95	436,086
FORT FRANCES-RAINY RIVER			METRO TORONTO		
Elementary	152.84	917,305	Elementary	4.69	4,815,390
Secondary	163.46	633,215	Secondary	4.68	1,541,190
FRONTENAC COUNTY			MICHIPICOTEN		
Elementary	101.10	2,501,545	Elementary	151.72	70,299
Secondary	112.25	1,452,933	Secondary	166.40	408,053
GERALTON			MIDDLESEX		
Elementary	153.68	121,178	Elementary	106.25	3,197,558
Secondary	189.13	341,898	Secondary	123.13	2,303,751
GREY			MUSKOKA		
Elementary	109.65	2,549,218	Elementary	124.80	1,973,102
Secondary	129.29	1,952,842	Secondary	145.07	848,656
HALDIMAND			NIAGARA SOUTH		
Elementary	100.32	1,094,505	Elementary	51.62	2,769,766
Secondary	114.32	646,346	Secondary	60.42	1,748,170
HALIBURTON			NIPIGON-RED ROCK		
Elementary	167.68	688,425	Elementary	127.71	209,967
Secondary	193.80	410,872	Secondary	138.63	166,370
HALTON			NIPISSING		
Elementary	27.51	2,922,805	Elementary	133.36	2,722,829
Secondary	30.30	1,468,115	Secondary	145.16	1,162,110
HAMILTON			NORFOLK		
Elementary	4.00	1,822,702	Elementary	98.09	1,153,373
Secondary	6.58	256,420	Secondary	106.44	738,580
HASTINGS			NORTH SHORE		
Elementary	112.67	3,401,100	Elementary	140.06	1,015,440
Secondary	127.86	1,965,479	Secondary	155.92	398,273
HEARST			NORTHUMBERLAND & NEWCASTLE		
Elementary	206.00	40,460	Elementary	61.79	3,214,923
Secondary	206.00	20,848	Secondary	95.96	2,523,401
HORNEPAYNE			OTTAWA		
Elementary	138.50	25,816	Elementary	4.00	1,299,331
Secondary	154.83	1,227	Secondary	4.00	672,806

TABLE 3
TRANSPORTATION

(1)	(2) 1991 PER PUPIL AMOUNT JULY-DEC	(3) ESTIMATED 1990 TRANSPORTATION GRANT	(1)	(2) 1991 PER PUPIL AMOUNT JULY-DEC	(3) ESTIMATED 1990 TRANSPORTATION GRANT
BOARDS OF EDUCATION			ROMAN CATHOLIC SEPARATE SCHOOL BOARDS		
OXFORD			CHAPLEAU, PANET & CAVERLY		
Elementary	61.53	1,646,159	Elementary	159.76	101,988
Secondary	95.65	1,365,068	Secondary	-	-
PEEL			COCHRANE-IROQUOIS FALLS		
Elementary	9.66	5,245,637	Elementary	179.74	867,422
Secondary	17.73	2,432,718	Secondary	187.87	309,838
PERTH			DRYDEN		
Elementary	95.16	1,810,857	Elementary	178.81	340,482
Secondary	110.27	957,361	Secondary	-	-
PETERBOROUGH			DUFFERIN-PEEL		
Elementary	100.33	3,117,848	Elementary	47.85	7,085,266
Secondary	114.86	2,456,677	Secondary	63.20	2,841,330
PRESCOTT & RUSSELL			DURHAM		
Elementary	136.26	1,547,940	Elementary	75.77	3,204,870
Secondary	150.71	1,116,009	Secondary	99.12	1,096,631
PRINCE EDWARD			ELGIN		
Elementary	107.06	616,434	Elementary	141.76	461,914
Secondary	123.62	625,696	Secondary	162.77	137,873
RED LAKE			ESSEX		
Elementary	130.86	416,574	Elementary	96.12	2,800,748
Secondary	146.39	410,088	Secondary	105.60	1,518,884
RENFREW			FORT FRANCES RAINY RIVER		
Elementary	137.74	2,642,599	Elementary	192.44	361,946
Secondary	159.21	1,520,713	Secondary	-	-
SAULT STE MARIE			FRONTENAC-LENNOX & ADDINGTON		
Elementary	93.94	1,363,163	Elementary	153.73	2,021,719
Secondary	104.09	686,687	Secondary	166.65	1,006,645
SIMCOE			GERALDTON		
Elementary	61.54	6,681,286	Elementary	176.73	116,357
Secondary	93.12	3,360,666	Secondary	-	-
STORMONT DUNDAS GLENGARRY			HALDIMAND-NORFOLK		
Elementary	113.46	3,364,819	Elementary	136.57	1,185,549
Secondary	127.30	2,064,493	Secondary	189.48	-
SUDBURY			HALTON		
Elementary	132.06	3,370,546	Elementary	81.68	2,144,558
Secondary	147.32	3,112,696	Secondary	69.42	1,260,631
TIMISKAMING			HAMILTON-WENTWORTH		
Elementary	155.76	1,218,450	Elementary	51.18	3,560,689
Secondary	166.54	1,077,443	Secondary	71.32	777,373
TIMMINS			HASTINGS PRINCE EDWARD		
Elementary	140.67	914,356	Elementary	156.68	1,769,836
Secondary	152.27	407,395	Secondary	186.24	561,457
VICTORIA			HEARST		
Elementary	107.31	2,787,249	Elementary	148.94	490,300
Secondary	127.66	1,591,585	Secondary	199.93	179,378
WATERLOO			HURON-PERTH		
Elementary	29.34	2,465,671	Elementary	155.17	1,481,064
Secondary	39.14	1,513,142	Secondary	167.68	602,325
WELLINGTON			KAPUSKASING		
Elementary	78.01	2,262,114	Elementary	155.17	901,149
Secondary	92.17	1,478,281	Secondary	161.25	756,251
WENTWORTH			KENORA		
Elementary	56.37	2,976,149	Elementary	143.72	532,290
Secondary	65.14	1,854,658	Secondary	189.71	108,093
WEST PARRY SOUND			KENT		
Elementary	171.47	1,113,171	Elementary	121.62	1,305,188
Secondary	191.47	584,502	Secondary	137.56	617,865
WINDSOR			KIRKLAND LAKE		
Elementary	4.00	1,185,010	Elementary	161.82	881,367
Secondary	4.00	667,894	Secondary	-	-
YORK REGION			LAKEHEAD		
Elementary	31.68	7,061,862	Elementary	100.68	3,451,404
Secondary	41.48	2,883,533	Secondary	123.36	299,084
ROMAN CATHOLIC SEPARATE SCHOOL BOARDS			LAMBTON		
BRANT			Elementary	117.94	1,748,394
Elementary	96.79	680,832	Secondary	137.62	535,744
Secondary	117.60	372,548	LANARK-LEEDS GRENVILLE		
BRUCE-GREY			Elementary	150.22	2,216,219
Elementary	166.00	2,115,743	Secondary	190.36	547,343
Secondary	197.24	862,226	LINCOLN		
CARLETON			Elementary	77.12	1,608,579
Elementary	60.02	6,422,674	Secondary	82.82	1,173,531
Secondary	99.82	2,592,014	LONDON-MIDDLESEX		
			Elementary	100.68	2,546,309
			Secondary	113.34	982,668

TABLE 3
TRANSPORTATION

(1)	(2) 1991 PER PUPIL AMOUNT JULY-DEC	(3) ESTIMATED 1990 TRANSPORTATION GRANT
ROMAN CATHOLIC SEPARATE SCHOOL BOARDS		
METRO SEPARATE		
Elementary	5.88	9,512,390
Secondary	4.12	1,796,515
MICHIGOCOTEN		
Elementary	168.52	128,939
Secondary		
NIPISSING		
Elementary	148.66	3,392,741
Secondary	142.60	1,211,977
NORTH OF SUPERIOR		
Elementary	151.81	300,654
Secondary		
NORTH SHORE		
Elementary	153.49	1,532,720
Secondary		
OTTAWA		
Elementary	4.00	1,545,628
Secondary	33.66	337,501
OXFORD		
Elementary	138.82	914,231
Secondary	164.96	196,457
PETERBOROUGH VICTORIA NORTHUMBERLAND & NEWCASTLE		
Elementary	127.70	4,035,047
Secondary	191.60	1,525,441
PRESCOTT & RUSSELL		
Elementary	100.81	4,068,706
Secondary	114.80	2,496,569
RENFREW		
Elementary	159.99	2,087,121
Secondary	177.08	892,530
SAULT STE MARIE		
Elementary	118.96	1,077,579
Secondary	125.73	706,842
SIMCOE		
Elementary	124.79	5,226,969
Secondary	148.39	1,581,682
STORMONT DUNDAS GLENGARRY		
Elementary	128.05	5,136,890
Secondary	126.17	1,342,858
SUDBURY		
Elementary	138.20	7,011,873
Secondary	154.54	3,378,691
TIMISKAMING		
Elementary	150.74	1,049,894
Secondary	176.79	412,870
TIMMINS		
Elementary	140.85	1,823,626
Secondary	166.58	478,803
WATERLOO		
Elementary	82.55	2,357,662
Secondary	73.55	1,767,103
WELLAND		
Elementary	88.67	1,918,837
Secondary	77.35	845,544
WELLINGTON		
Elementary	124.89	1,485,978
Secondary	140.49	889,428
WINDSOR		
Elementary	10.24	1,723,660
Secondary	8.48	896,837
YORK		
Elementary	48.62	8,269,788
Secondary	64.49	2,425,521
OTTAWA-CARLETON FRENCH LANGUAGE SCHOOL BOARD		
PUBLIC SECTOR		
Elementary	143.93	1,636,608
Secondary	148.02	1,003,431
SEPARATE SECTOR		
Elementary	91.08	4,859,126
Secondary	118.08	819,765

O. Reg. 86/91, Table 3.

TABLE 4

SPECIAL ASSISTANCE FOR EN BLOC TRANSFER

Column 1	Column 2
<u>NAME OF BOARD</u>	<u>SPECIAL ASSISTANCE FOR EN BLOC TRANSFER</u>
Essex County Board of Education	\$ 93,000
Hearst Board of Education	\$120,000
Kapuskasing Board of Education	\$ 30,655
Nipissing Board of Education	\$ 63,000
Prescott and Russell County Board of Education	\$300,000
Stormont, Dundas and Glengarry County Board of Education	\$280,000
Timiskaming Board of Education	\$ 70,260
Timmins Board of Education	\$160,800
Carleton Board of Education — Elementary Schools	\$ 34,080
— Secondary Schools	\$114,240
Carleton Roman Catholic Separate School Board — Elementary Schools	\$354,810
— Secondary Schools	—
Ottawa Board of Education — Elementary Schools	\$ 58,080
— Secondary Schools	\$126,360
Ottawa Roman Catholic Separate School Board — Elementary Schools	\$241,530
— Secondary Schools	\$102,420

O. Reg. 86/91, Table 4.

MARION BOYD
Minister of Education

Dated at Toronto, this 25th day of February, 1991.

12/91

EDUCATION ACT

O. Reg. 87/91.

Apportionment 1991 Requisitions.

Made—March 8th, 1991.

Filed—March 8th, 1991.

REGULATION MADE UNDER THE
EDUCATION ACT

APPORTIONMENT 1991 REQUISITIONS

1.—(1) In this Regulation,

“apportionable sum required by a divisional board for elementary school purposes for 1991” means the excess of the total estimated expenditure of the board for elementary school purposes for 1991 exclusive of,

- (a) allowances and provisions for differences between the sum that the board requisitioned and the sum that the board ought to have requisitioned in a previous year for elementary school purposes from a local municipality in the school division, and
- (b) the portion charged to elementary school purposes of any expenditures incurred by the board in performing the duties of a municipal council,

over the sum of the estimated revenues of the board for elementary school purposes for 1991 from sources other than local taxation and the amount in the reserve established under subsection 210 (2) of the Act for elementary school purposes;

“apportionable sum required by a divisional board for secondary school purposes for 1991” means the excess of the total estimated expenditure of the board for secondary school purposes for 1991 exclusive of,

- (a) allowances and provisions for differences between the sum that the board requisitioned and the sum that the board ought to have requisitioned in a previous year for secondary school purposes from a local municipality in the school division, and
- (b) the portion charged to secondary school purposes of any expenditures incurred by the board in performing the duties of a municipal council,

over the sum of the estimated revenue of the board for secondary school purposes for 1991 from sources other than local taxation and the amount in the reserve established under subsection 210 (2) of the Act for secondary school purposes;

“assessment” has the same meaning as in Ontario Regulation 86/91 (General Legislative Grants);

“A.E.F. for apportionment purposes for 1991” for a municipality or locality, means the assessment equalization factor provided by the Minister for 1991;

“equalized assessment for a municipality or locality” means the quotient obtained by dividing the product of 100 and the assessment for the municipality or locality by the A.E.F. for apportionment purposes for 1991 for the municipality or locality;

“local taxation” means taxes levied by a municipality or a board for elementary or secondary school purposes, as the case may be, exclusive of taxes paid over under section 34 of the *Assessment Act* and taxes levied under section 161 of the *Municipal Act*;

“payment in lieu of taxes for 1991” means, in respect of a municipality, the sum of the amounts payable by the municipality to the board for 1991 for elementary school purposes or for secondary school purposes, as the case may be, under subsection 7 (10) of the *Housing Development Act*, under subsection 498 (4) of the *Municipal Act*,

under subsection 46 (9) of the *Power Corporation Act* and under section 2 of the *Municipal and School Board Payments Adjustment Act, 1989*.

(2) Clause (a) of the definition “apportionable sum required by a divisional board for elementary school purposes for 1991” and clause (a) of the definition “apportionable sum required by a divisional board for secondary school purposes for 1991”, do not apply in the case of a divisional board or a secondary school board if the area of jurisdiction of the board comprises an area where an assessment update has been carried out under subsection 368b (2) of the *Municipal Act*, subsection 78 (1) of the *District Municipality of Muskoka Act*, subsection 82 (1) of the *Regional Municipality of Haldimand-Norfolk Act*, subsection 74 (1) of the *Regional Municipality of Sudbury Act*, or subsection 121 (1) of the *Regional Municipality of Waterloo Act*. O. Reg. 87/91, s. 1.

2.—(1) The apportionable sum required by a divisional board for elementary school purposes for 1991 shall be apportioned among the municipalities and localities in the school division in the ratio, correct to five places of decimals, of the equalized assessment for such municipalities or localities for elementary school purposes to the total equalized assessment of the municipalities and localities for elementary school purposes in the school division.

(2) The amount apportioned to a municipality or locality by a divisional board for elementary school purposes for 1991 shall be the sum of the following amounts adjusted where required under section 210 or subsection 219 (2) or (3) of the Act:

1. The amount apportioned under subsection (1) to the municipality or locality.
2. Expenditures applicable to the locality that are incurred for 1991 by the divisional board in performing the duties of a municipal council and that are charged to elementary school purposes.
3. The payment in lieu of taxes for 1991 in respect of the municipality for elementary school purposes.
4. The amount of the tax levied under subsections 161 (12) and (13) of the *Municipal Act* allocated or paid by the municipality to the divisional board for 1991 for elementary school purposes. O. Reg. 87/91, s. 2.

3.—(1) The apportionable sum required by a divisional board for secondary school purposes for 1991 shall be apportioned among the municipalities and localities in the school division in the ratio, correct to five places of decimals, of the equalized assessment for such municipalities or localities for secondary school purposes to the total equalized assessment of the municipalities and localities for secondary school purposes in the school division.

(2) The amount apportioned to a municipality or locality by a divisional board for secondary school purposes for 1991 shall be the sum of the following amounts adjusted where required under section 210 or subsection 219 (2) or (3) of the Act:

1. The amount apportioned under subsection (1) to the municipality or locality.
2. Expenditures applicable to the locality that are incurred for 1991 by the divisional board in performing the duties of a municipal council and that are charged to secondary school purposes.
3. The payment in lieu of taxes for 1991 in respect of the municipality for secondary school purposes.
4. The amount of the tax levied under subsections 161 (12) and (13) of the *Municipal Act* allocated or paid by the municipality to the divisional board for 1991 for secondary school purposes. O. Reg. 87/91, s. 3.

4.—(1) If the adjustments required under section 219 of the Act are

in respect of a part or parts of a municipality or locality, the divisional board shall provide with its requisition sufficient information in respect of the adjustments to enable the amount required for elementary or secondary school purposes, as the case may be, in respect of the part or parts of the municipality or locality to be determined.

(2) If for the purpose of a levy in 1991 a municipality is required under any Act to apportion the amount to be raised for municipal purposes among two or more defined areas within the municipality, the amounts requisitioned on the municipality in 1991 by a divisional board for elementary or secondary school purposes, as the case may be, exclusive of payments in lieu of taxes, taxes levied under subsections 161 (12) and (13) of the *Municipal Act* allocated or paid by the municipality to the divisional board, and adjustments required under section 219 of the *Education Act* shall, for the purpose of the levy in 1991, be apportioned by the municipality among such defined areas in the ratio correct to five places of decimals of the equalized assessments for the defined areas for elementary or secondary school purposes, as the case may be, to the total equalized assessment of the municipality.

(3) For the purposes of subsection (2), the equalized assessment for the defined area shall be deemed to be the sum of,

- (a) the residential and farm assessment within the defined area upon which taxes are levied; and
- (b) the quotient obtained by dividing by .85, the commercial assessment upon which taxes are levied, included in the last revised assessment roll for such defined area used for taxation purposes in 1991, equalized by using the 1979 assessment equalization factors set out in Schedule B to Ontario Regulation 108/79.

(4) Subsection (2) does not apply to a municipality if there has been an assessment update of all real property in the municipality. O. Reg. 87/91, s. 4.

5.—(1) Subject to subsection (2), this Regulation applies with necessary modifications to separate school boards referred to in sections 214a and 214b of the Act.

(2) Paragraph 3 of subsection 2 (2) and paragraph 3 of subsection 3 (2) do not apply to an apportionment by a divisional board or by a separate school board to a municipality situated in The District Municipality of Muskoka, The Regional Municipality of Haldimand-Norfolk, The Regional Municipality of Sudbury, The Regional Municipality of Waterloo, or in an area where an assessment update has been carried out under subsection 368b (2) of the *Municipal Act*. O. Reg. 87/91, s. 5.

12/91

EDUCATION ACT

O. Reg. 88/91.

Calculation of Fees for Pupils—1991.

Made—February 21st, 1991.

Approved—March 8th, 1991.

Filed—March 8th, 1991.

REGULATION MADE UNDER THE EDUCATION ACT

CALCULATION OF FEES FOR PUPILS — 1991

I. In this Regulation,

“A.D.E.” means average daily enrolment for 1991 calculated under Ontario Regulation 89/91 (Calculation of Average Daily Enrolment);

“current cost of operating”, “elementary school pupil”, “eligible sum for French as a first language”, “eligible sum for French as a second language”, “eligible sum for Native as a second language”, “eligible

sum for full-day kindergarten”, “non-resident pupil”, “O.E.”, “P.A.C.”, “R.O.E.”, “resident-internal pupil” and “secondary school pupil” have the same meaning as in Ontario Regulation 86/91 (General Legislative Grants) except that,

- (a) in respect of a board appointed under section 70 of the Act, “current cost of operating” does not include current expenditure for furniture and equipment and for debt charges, and
- (b) if a board has entered into an agreement under subsection 165 (2) of the Act that provides for a payment by the Crown in right of Canada to provide classroom accommodation for a specified number of pupils, the P.A.C. for each such pupil shall be zero;

“high cost program” means,

- (a) a special education program, other than a program provided in the board's school in lieu of an education program provided by a provincial school for the blind and the deaf or other similar program for which a general legislative grant is payable, or
- (b) a program that includes technological studies that qualify for one or more credits toward the secondary school graduation diploma or Ontario secondary school diploma;

“technological studies” means the courses developed from curriculum guidelines that are issued by the Minister for the intermediate division and senior division and listed under the heading “Technological Studies” in the circular entitled “Ontario Schools Intermediate and Senior Divisions Program and Diploma Requirements” issued by the Minister. O. Reg. 88/91, s. 1.

2.—(1) This Regulation applies to fees for pupils in respect of the year 1991.

(2) The fees under this Regulation shall be calculated separately for elementary school purposes and for secondary school purposes. O. Reg. 88/91, s. 2.

Fees Charged to Boards

3.—(1) Except as provided in section 4, the fee in respect of a pupil whose fee is receivable from another board, from Canada or from a band, council of a band or education authority authorized by the Crown in right of Canada to provide education for Indians or for a pupil to whom subsection 48 (6) of the Act applies shall be calculated by,

- (a) subtracting from the current cost of operating of the board that provides the instruction, the grants payable to the board in respect of the eligible sum for French as a first language, the eligible sum for French as a second language, the eligible sum for Native as a second language, the eligible sum for full-day kindergarten and the reduction in class-size in grades 1 and 2 as determined under section 21 of Ontario Regulation 86/91 (General Legislative Grants) and dividing the difference so obtained by the sum of the average daily enrolment that is,
 - (i) calculated under section 2 of Ontario Regulation 89/91 (Calculation of Average Daily Enrolment) in respect of resident-internal and non-resident pupils of the board, and
 - (ii) calculated under section 3 of Ontario Regulation 89/91 (Calculation of Average Daily Enrolment) in respect of resident-internal and non-resident pupils of the board enrolled in summer schools established by the board in a course of study acceptable to the Minister that the board is authorized or required to provide in its day school program in grades 1 to 8; and
- (b) multiplying the A.D.E. of the pupil to whom subsection

48 (6) of the Act applies or the A.D.E. of the pupil whose fee is receivable from another board, from Canada or from a band, council of a band or education authority, as the case may be, by the sum of,

- (i) the amount determined under clause (a), and
- (ii) the P.A.C. for such pupil.

(2) Subclause (1) (b) (ii) does not apply to a board that is appointed under section 70 of the Act.

(3) The fee in respect of a pupil referred to in subsection (1) who is enrolled in a Native language program and whose fee is receivable from Canada or from a band, council of a band or education authority authorized by the Crown in right of Canada to provide education for Indians may be increased by an amount equal to the portion of the eligible sum for Native as a second language that would be generated for such pupil if the pupil were a resident pupil of the board.

(4) The fee in respect of a pupil referred to in subsection (1) who is enrolled in a high cost program may be increased by multiplying the fee by a factor agreed upon by the board and party from whom the fees are receivable when,

- (a) the ratio of the A.D.E. of such pupils registered in a high cost program for whom fees are receivable by the board from such party to the A.D.E. of pupils enrolled in such high cost program conducted by the board,

is greater than,

- (b) the ratio of the A.D.E. of such pupils for whom fees are receivable by the board from such party to the A.D.E. of pupils enrolled in schools operated by the board.

(5) If under this section the board that provides the instruction and the other board or party concerned cannot agree upon a factor, the factor shall be determined by three arbitrators.

(6) If the fee is in respect of a pupil for whom the Minister pays the cost of education, the three arbitrators shall be,

- (a) one arbitrator appointed by the board that provides the instruction;
- (b) one arbitrator appointed by the Minister; and
- (c) one arbitrator appointed by the arbitrators appointed under clauses (a) and (b).

(7) In all cases other than a case to which subsection (6) applies, the three arbitrators shall be,

- (a) one arbitrator appointed by the board that provides the instruction;
- (b) one arbitrator appointed by the board from which or the party from whom the fee is receivable; and
- (c) one arbitrator appointed by the Minister.

(8) The decision of the arbitrators or a majority of them is final and binding upon the board that provided the instruction and the other board or party concerned. O. Reg. 88/91, s. 3.

Fees Paid to Certain Boards Appointed Under Section 70 of the Act

4. The fee in respect of a pupil enrolled in a school operated by a board that is appointed under section 70 of the Act in a centre for the treatment of cerebral palsy, a crippled children's treatment centre, a hospital or a sanatorium shall be calculated by,

- (a) adding to the current cost of operating of the board that

provides the instruction, the portion approved by the Minister for grant purposes of the expenditure for such year for the transportation of pupils and deducting from the total thereof the general legislative grants payable to the board for such year, except a grant that is equal to the cost of education;

- (b) dividing the amount determined under clause (a) by the sum of the days on which each pupil is enrolled at the school; and
- (c) multiplying the amount determined under clause (b) by the number of days for which the pupil whose fee is being calculated is enrolled at the school. O. Reg. 88/91, s. 4.

Fees Charged to Parents Residing in Ontario

5.—(1) The fee charged by a board in respect of a pupil whose parent or guardian is resident in Ontario, other than a pupil whose fee is receivable from another board, from Canada or from a band, council of a band or education authority authorized by the Crown in right of Canada to provide education for Indians, shall not exceed the fee referred to in subsection (3) or (4), as the case requires.

(2) Subsection (1) does not apply to a board that is appointed under section 70 of the Act.

(3) The fee in respect of one or more pupils who reside with their parent or guardian in a school section, separate school zone or secondary school district on land that is exempt from taxation for school purposes shall not exceed,

- (a) \$74 for each month such pupil or pupils are enrolled in an elementary school operated by the board; and
- (b) \$74 for each month such pupil or pupils are enrolled in a secondary school operated by the board.

(4) In the case of a pupil who is qualified to be a resident pupil of a school section, separate school zone or secondary school district, the fee in respect of the pupil shall not exceed, for each month the pupil is enrolled, the greater of,

- (a) \$74; and
- (b) one-tenth of the sum of,

(i) the quotient obtained by dividing,

- (A) the board's estimate of the excess of its O.E. for the year over its R.O.E.,

by,

- (B) the A.D.E. of the board for the year that is in respect of resident-internal and resident-external pupils of the board, and

(ii) the P.A.C.

(5) If a pupil is enrolled in a high cost program, the amount calculated under subsection (4) may be increased by an amount that does not exceed the additional cost to the board of providing the high cost program to the pupil. O. Reg. 88/91, s. 5.

Fees Charged to Parents not Residing in Ontario

6.—(1) The fee in respect of a pupil whose parent or guardian does not reside in Ontario shall be such fee as the board providing the instruction to the pupil may determine and, except as is provided in subsection (3), shall not exceed the product obtained by multiplying one-tenth of the sum of the quotient determined under clause 3 (1) (a) and the P.A.C. for the pupil by the number of months during which the pupil is enrolled in such year in a school operated by the board.

(2) Subsection (1) does not apply to a pupil to whom subsection 48 (6) of the Act applies.

(3) The fee in respect of a pupil referred to in subsection (1) who is enrolled in a high cost program shall be determined by multiplying the fee determined under subsection (1) by a factor to be agreed upon between the board that provides the instruction and the party from whom the fees are receivable. O. Reg. 88/91, s. 6.

Fees for Programs in Facilities

7.—(1) The fee charged by a board in respect of a pupil who is not qualified to be a resident pupil of the board and for whom an educational program is provided in a hospital or treatment centre shall be such fee as may be agreed upon between the board that provides the program and,

- (a) the board of which the pupil is qualified to be a resident pupil; or
- (b) if the pupil is not qualified to be a resident pupil of a board, the parent or guardian of the pupil.

(2) Subsection (1) does not apply to a board that provides the educational program if the board,

- (a) is appointed under section 70 of the Act; or
- (b) receives a grant under section 27 of Ontario Regulation 86/91 (General Legislative Grants) with respect to that educational program. O. Reg. 88/91, s. 7.

MARION BOYD
Minister of Education

Dated at Toronto, this 21st day of February, 1991.

12/91

EDUCATION ACT

O. Reg. 89/91.

Calculation of Average Daily Enrolment.

Made—February 21st, 1991.

Approved—March 8th, 1991.

Filed—March 8th, 1991.

REGULATION MADE UNDER THE EDUCATION ACT

CALCULATION OF AVERAGE DAILY ENROLMENT

1. In this Regulation,

“cycle” means the number of school days for which a schedule of classes in a school continues before the schedule is repeated;

“full-time pupil” means a pupil who,

- (a) is enrolled in day school other than in junior kindergarten or kindergarten; and
- (b) in respect of a cycle, is registered for classroom instruction for an average of 151 minutes or more per school day;

“half-time pupil” means a pupil who,

- (a) is enrolled in junior kindergarten or kindergarten; and
- (b) in respect of a cycle, is registered for classroom instruction for an average of at least 150 minutes per school day;

“independent study course” means a credit course that is provided to a pupil other than a full-time pupil in whole or, at the option of a board, in part through a non-classroom instructional mode of delivery;

“part-time pupil” means a pupil who is enrolled in day school and is neither a full-time nor a half-time pupil. O. Reg. 89/91, s. 1.

2. Day school average daily enrolment for a board for a year is the sum of,

- (a) the product of 0.3 and the sum of,
 - (i) the number of full-time pupils enrolled on the last school day in January and 0.5 times the number of half-time pupils enrolled on that day,
 - (ii) the quotient obtained by determining, for each part-time pupil enrolled on the last school day in January, the number of minutes for which each pupil is registered for classroom instruction in the cycle that includes that day in a course other than an independent study course and dividing the sum of numbers so determined by the product of 300 and the number of days in the cycle,
 - (iii) the number of full-time pupils enrolled on the last school day in April and 0.5 times the number of half-time pupils enrolled on that day, and
 - (iv) the quotient obtained by determining, for each part-time pupil enrolled on the last school day in April, the number of minutes for which each pupil is registered for classroom instruction in the cycle that includes that day in a course other than an independent study course and dividing the sum of the numbers so determined by the product of 300 and the number of days in the cycle;

(b) the product of 0.4 and the sum of,

- (i) the number of full-time pupils enrolled on the last school day in September and 0.5 times the number of half-time pupils enrolled on that day, and
 - (ii) the quotient obtained by determining, for each part-time pupil enrolled on the last school day in September, the number of minutes for which each such pupil is registered for classroom instruction in the cycle that includes that day in a course other than an independent study course and dividing the sum of the numbers so determined by the product of 300 and the number of days in the cycle; and
- (c) an amount in respect of each pupil who is enrolled in an independent study course that meets the criteria established by the Minister for inclusion in the determination of day school enrolment, calculated as follows:

$$\frac{A}{7.5} \times B$$

where,

A = the number of credits or the portion of a credit that may be earned by the pupil upon successful completion of the course,

B = the decimal fraction representing the portion of the total quantity of work required for completion of the course that is completed by the pupil during the periods from January 1 to June 30 and September 1 to December 31 in a year. O. Reg. 89/91, s. 2.

3. Continuing education average daily enrolment for a board for a year is the sum of,

- (a) an amount in respect of each pupil enrolled in a continuing education class or course established by the board, other than an independent study course, calculated as follows:

$$\frac{A \times B}{300 \times C}$$

where,

A = the number of sessions for which the pupil is enrolled,

B = the number of minutes in each session,

C = the number of school days in the year; and

- (b) an amount in respect of each pupil who is enrolled in an independent study course that does not meet the criteria established by the Minister for inclusion in the determination of day school enrolment, calculated as follows:

$$A \times .1134 \times B$$

where,

A = the number of credits or the portion of a credit which may be earned by the pupil upon successful completion of the course,

B = the decimal fraction representing the portion of the total quantity of work required for completion of the course that is completed by the pupil during the year. O. Reg. 89/91, s. 3.

4. This Regulation applies in respect of the year 1991 and succeeding years. O. Reg. 89/91, s. 4.

5.—(1) Regulation 256 of Revised Regulations of Ontario, 1980 and Ontario Regulations 127/85 and 113/86 are revoked.

(2) Despite the revocation of Ontario Regulation 127/85, that Regulation continues to apply in respect of the years 1985 to 1990.

MARION BOYD
Minister of Education

Dated at Toronto, this 21st day of February, 1991.

12/91

EDUCATION ACT

O. Reg. 90/91.

Payment Transfer Between
Coterminous Boards—1991.
Made—March 8th, 1991.
Filed—March 8th, 1991.

REGULATION MADE UNDER THE EDUCATION ACT

PAYMENT TRANSFER BETWEEN COTERMINOUS BOARDS — 1991

1. In this Regulation, "assessment" and "equivalent assessment for a municipality or locality" have the same meaning as in Ontario Regulation 86/91 (General Legislative Grants), and "A.E.F. for 1979" has the same meaning as in Ontario Regulation 98/87 (General Legislative Grants). O. Reg. 90/91, s. 1.

2.—(1) For the purposes of subsection 136n (2) of the Act, for the year 1991, a Roman Catholic school board, other than the Metropolitan Separate School Board, shall pay to a public board that has substantially the same or part of the same area of jurisdiction as the Roman Catholic school board an amount that is calculated as follows:

$$\text{amount} = \frac{A}{B} \times C \times D \times \frac{E}{F}$$

where,

A = the amount requisitioned for secondary school purposes in 1990 by the public board increased by the amount, if any, by which the public board reduced its requisition for secondary school purposes in 1990 as a result of a strike or lockout of employees of the board during the year 1989,

B = the sum of the amounts for secondary school purposes for the municipalities or localities within the jurisdiction of the public board that are determined by dividing the product of 100 and the sum of the assessment for 1990 for the municipality or locality and the equivalent assessment for the municipality or locality for 1990 by the A.E.F. for 1979 for the municipality or locality,

C = 1.04,

D = the sum of the amounts for separate school purposes for the municipalities or localities within the jurisdiction of both the public board and the Roman Catholic school board that are determined by dividing the product of 100 and the sum of the assessment for 1991 for the municipality or locality and the equivalent assessment for the municipality or locality for 1991 by the A.E.F. for 1979 for the municipality or locality,

E = the number of pupils who are qualified to be resident pupils of the Roman Catholic school board and who on the 30th day of September, 1990 were enrolled in,

(a) a secondary school operated by the public board under clause 136n (l) (a) of the Act, or

(b) a secondary school operated by another public board to which the public board referred to in clause (a) paid fees under clause 136n (l) (b) of the Act,

except for such pupils enrolled in a secondary school of the public board that is transferred with the approval of the Minister to the Roman Catholic school board on the 1st day of January, 1991,

F = the number of pupils who are qualified to be resident pupils of the Roman Catholic school board and who on the 30th day of September, 1990 were enrolled in a secondary school operated by the public board or the Roman Catholic school board and who reside in the area of jurisdiction of the public board,

$\frac{A}{B}$ is calculated to six places of decimal,

$\frac{E}{F}$ is calculated to four places of decimal.

(2) For the purposes of subsection 136n (5) of the Act, for the year 1991, the Metropolitan Separate School Board shall pay to The Metropolitan Toronto School Board an amount calculated in accordance with subsection (1) with necessary modifications. O. Reg. 90/91, s. 2.

3. The amount calculated under section 2 shall be paid by the Roman Catholic school board to the public board in the following instalments:

1. 25 per cent of the amount not later than the 31st day of March, 1991.
2. 25 per cent of the amount not later than the 30th day of June, 1991.
3. 25 per cent of the amount not later than the 30th day of September, 1991.
4. 25 per cent of the amount not later than the 15th day of December, 1991. O. Reg. 90/91, s. 3.

12/91

Publications under the Regulations Act

Publications en vertu de la Loi sur les règlements

1991—03—30

COURTS OF JUSTICE ACT, 1984

O. Reg. 91/91.

Number of Judges.

Made—December 20th, 1990.

Filed—March 12th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 296/90 MADE UNDER THE COURTS OF JUSTICE ACT, 1984

1. Section 1 of Ontario Regulation 296/90 is amended by striking out "183 judges" in the first line and substituting "195 judges".

13/91

FOREST FIRES PREVENTION ACT

O. Reg. 92/91.

Restricted Fire Zone.

Made—March 12th, 1991.

Filed—March 14th, 1991.

REGULATION MADE UNDER THE FOREST FIRES PREVENTION ACT

RESTRICTED FIRE ZONE

1. The part of the Northeastern Fire Region as described in Schedule A is declared to be a restricted fire zone from the 1st day of May to the 31st day of October, both inclusive, in the year 1991. O. Reg. 92/91, s. 1.

Schedule A

In the geographic townships of Abotossaway, Aguonie, Bailloquet, Chabanel, Corbiere, Cowie, Esquega, Leclair, Lendrum, Menzies, McMurray and Musquash in the Territorial District of Algoma described as follows:

Beginning at a point on the high water mark on the westerly shore of Wawa Lake where the same is intersected by the SW corner of patented Mining Claim SSM 11587; thence in a general northeasterly direction following the high water mark on the westerly and northwesterly shores of Wawa Lake to the most easterly extremity thereof; thence south

astronomically to a point in the northerly limit of that part of the King's Highway known as No. 101; thence in a general northeasterly direction following that limit to its intersection with a point on the northerly limit of that road now known as the Old Hawk Road (formerly Highway 101); thence in a general northeasterly direction following that limit to the intersection with the high water mark on the northerly shore of the waters connecting Bremner Lake and Hawk Lake; thence northeasterly in a straight line to a point, which said point is the intersection of the north boundary of the geographic Township of Esquega with the westerly limit of the right-of-way of the main line of the Algoma Central Railway; thence in a general northerly direction following that limit to the intersection with the high water mark on the easterly shore of Philip Lake; thence in a general northerly direction following that high water mark to its intersection with the southerly limit of the Goudreau-Magpie Road; thence in a general westerly direction following the limit to the intersection with the high water mark on the westerly shore of the Magpie River; thence in a general southwestwardly direction following that high water mark to its intersection with the upstream face of the Steephill Falls dam; thence westerly along the said face of the dam and the centre line of the Steephill Falls Road to the high water mark along the westerly shore of Catfish Creek; thence in a southerly and southeasterly direction along the high water mark on the westerly shores of the Catfish Creek and Magpie River to the intersection with the north boundary of patented Mining Claim SSM 11089; thence in a general easterly and northerly direction on the north boundaries of patented Mining Claim SSM 11089 and patented Mining Claim SSM 11090; thence in a general easterly direction along the north boundary of D.J. 94 to where it intersects the western boundary of patented Mining Claim SSM 22582; thence southerly along the western boundaries of patented Mining Claims SSM 22582 and SSM 16028 to the NW corner of patented Mining Claim SSM 5307; thence southeasterly and southerly along the northern and eastern boundary of patented Mining Claim SSM 5307; thence southeasterly and northerly along the southern and eastern boundaries of patented Mining Claim 14949 to the SW corner of patented Mining Claim SSM 22580; thence southeasterly to the western boundary of patented Mining Claim SSM 2240; thence southerly and thence easterly along the south boundaries of patented Mining Claims SSM 2240 and SSM 22578 to the intersection of the SW corner of patented Mining Claim SSM 11587 and the high water mark on the western shore of Wawa Lake to the point of beginning. O. Reg. 92/91, Sched. A.

GEORGE TOUGH
Deputy Minister of
Natural Resources

Dated at Toronto, this 12th day of March, 1991.

13/91

Publications under the Regulations Act Publications en vertu de la Loi sur les règlements

1991—04—06

PLANNING ACT, 1983

O. Reg. 93/91.

Restricted Areas—District of Manitoulin,
Geographic townships of Campbell, Dawson,
Mills and Robinson.

Made—March 12th, 1991.

Filed—March 18th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 672/81 MADE UNDER THE PLANNING ACT, 1983

1. Ontario Regulation 672/81 is amended by adding the following section:

143.—(1) Despite subsection 50 (1), one seasonal dwelling together with buildings and structures accessory to it may be erected and used on the land described in subsection (2) if the following requirements are met:

Maximum lot coverage	15 per cent
Minimum front yard	15 metres
Minimum rear yard	7.5 metres
Minimum side yards	6 metres
Maximum height	9 metres

(2) Subsection (1) applies to that parcel of land in the Township of Robinson in the Territorial District of Manitoulin being part of Lot 8, Concession I, designated as Part 73 on Reference Plan RR-39 deposited in the Land Registry Office for the Registry Division of Manitoulin (No. 31). O. Reg. 93/91, s. 1.

PETER W. BOLES
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 12th day of March, 1991.

14/91

PLANNING ACT, 1983

O. Reg. 94/91.

Restricted Areas—District of Manitoulin,
Geographic townships of Campbell, Dawson,
Mills and Robinson.

Made—March 12th, 1991.

Filed—March 18th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 672/81 MADE UNDER THE PLANNING ACT, 1983

1. Ontario Regulation 672/81 is amended by adding the following section:

144.—(1) Despite subsection 50 (1), one seasonal dwelling together with buildings and structures accessory to it may be erected and used on the land described in subsection (2) if the following requirements are met:

Maximum lot coverage	15 per cent
Minimum front yard	7.5 metres
Minimum rear yard	7.5 metres
Minimum side yards	7 metres
Maximum height	9 metres

(2) Subsection (1) applies to that parcel of land in the geographic Township of Robinson in the Territorial District of Manitoulin being part of lots 7 and 8, Concession I, designated as Part 58 on Reference Plan RR-39 deposited in the Land Registry Office for the Registry Division of Manitoulin (No. 31). O. Reg. 94/91, s. 1.

PETER W. BOLES
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 12th day of March, 1991.

14/91

PARKWAY BELT PLANNING AND DEVELOPMENT ACT

O. Reg. 95/91.

County of Wentworth (now The Regional Municipality of Hamilton-Wentworth), Village of Waterdown (now the Township of Flamborough).

Made—March 8th, 1991.

Filed—March 18th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 485/73 MADE UNDER THE

PARKWAY BELT PLANNING AND DEVELOPMENT ACT

1. Ontario Regulation 485/73 is amended by adding the following section:

16.—(1) Despite section 4, a building designed for use by, and occupied by, a single household, together with buildings and structures accessory to it may be erected and used on each of the parcels of land designated as parts 3 and 4 on the Reference Plan described in subsection (2) if the following requirements are met:

Maximum height	8.8 metres
Maximum coverage for a building with 1 1/2 or 2 storeys	20 per cent
Minimum front yard	6 metres
Minimum side yard	1.2 metres
Maximum northerly side yard	1.5 metres
Minimum setback from the top of the bank established by the Halton Region Conservation Authority and shown on the Reference Plan described in subsection (2)	15 metres

(2) Subsection (1) applies to those lands in the Town of Flamborough in The Regional Municipality of Hamilton-Wentworth being part of Lot 20, Village of Waterdown, Registered Plan M-10 designated as parts 3 and 4 on Reference Plan 62R-11346 deposited in the Land Registry Office for the Registry Division of Wentworth (No. 62). O. Reg. 95/91, s. 1.

DIANA LINN JARDINE
Director
Plans Administration Branch
Central and Southwest
Ministry of Municipal Affairs

Dated at Toronto, this 8th day of March, 1991.

14/91

FARM PRODUCTS MARKETING ACT

O. Reg. 96/91.

Grapes for Processing—Marketing.
Made—March 13th, 1991.
Filed—March 19th, 1991.

REGULATION TO AMEND REGULATION 364 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE FARM PRODUCTS MARKETING ACT

1. Section 6 of Regulation 364 of Revised Regulations of Ontario, 1980 is amended by adding the following clause:

- (p) providing for the exemption from any or all of the regulations, orders or directions under any plan of any class, variety, grade or size of grapes, or any person or class of persons engaged in the producing or marketing of grapes or any class, variety, grade or size of grapes.

ONTARIO FARM PRODUCTS MARKETING COMMISSION:

RUSSELL DUCKWORTH
Chair

JOE MAZZEI
Assistant Secretary

Dated at Toronto, this 13th day of March, 1991.

14/91

LOCAL ROADS BOARDS ACT

O. Reg. 97/91.

Establishment of Local Roads Areas—
Northern and Eastern Regions.
Made—March 12th, 1991.
Filed—March 20th, 1991.

REGULATION TO AMEND REGULATION 598 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE LOCAL ROADS BOARDS ACT

1. Schedule 49 to Regulation 598 of Revised Regulations of Ontario, 1980 is revoked and the following substituted:

Schedule 49

ST. CLOUD LOCAL ROADS AREA

All those portions of the townships of Cleland, Dryden and Dill in the Territorial District of Sudbury shown outlined on Ministry of Transportation Plan N-771-2, filed with the Administrative Services Office of the Ministry of Transportation at Toronto on the 14th day of February, 1991. O. Reg. 97/91, s. 1.

2. Schedule 66 to the Regulation is revoked and the following substituted:

Schedule 66

RED DEER LOCAL ROADS AREA

All those portions of the townships of Cleland, Dryden, Awrey and Hawley in the Territorial District of Sudbury shown outlined on Ministry of Transportation Plan N-771-A5, filed with the Administrative Services Office of the Ministry of Transportation at Toronto on the 14th day of February, 1991. O. Reg. 97/91, s. 2.

ED PHILIP
Minister of Transportation

Dated at Toronto, this 12th day of March, 1991.

14/91

POWER CORPORATION ACT

O. Reg. 98/91.

Debt Guarantee Fees.
Made—March 20th, 1991.
Filed—March 21st, 1991.

REGULATION TO AMEND ONTARIO REGULATION 691/89 MADE UNDER THE POWER CORPORATION ACT

1. Section 1 of Ontario Regulation 691/89 is amended by adding the following subsections:

(3) For the purpose of subsection (1), the principal amount in each year of any issue of serial zero coupon notes or debentures of the Corporation shall be deemed to be the present value of the notes or debentures outstanding on the 31st day of December in the year at the end of which the principal amount of the notes or debentures is determined under subsection (1).

(4) The present value referred to in subsection (3) of an issue of serial zero coupon notes or debentures on the 31st day of December in the year when the notes or debentures are issued is the amount paid or credited to the Corporation for the issue of the notes or debentures.

(5) The present value referred to in subsection (3) in any year after the year in which the serial zero coupon notes or debentures are issued shall be determined as of the anniversary date of the date of issue that next precedes the 31st day of December in the year at the end of which the principal amount of the notes or debentures is determined under subsection (1), and at an interest rate equivalent to the discount rate that determined the original yield to investors on the entire issue of serial zero coupon notes or debentures. O. Reg. 98/91, s. 1.

2. Section 6 of the Regulation is revoked.

14/91

CONSERVATION AUTHORITIES ACT

O. Reg. 99/91.

Fill, Construction and Alteration to Waterways—
The Niagara Peninsula Conservation Authority.
Made—August 30th, 1990.
Approved—March 20th, 1991.
Filed—March 21st, 1991.

**REGULATION MADE UNDER THE
CONSERVATION AUTHORITIES ACT**

**FILL, CONSTRUCTION AND ALTERATION TO
WATERWAYS—THE NIAGARA PENINSULA
CONSERVATION AUTHORITY**

1. In this Regulation,

“Authority” means The Niagara Peninsula Conservation Authority;

“drainage area” means, for a pond, the area which contributes runoff to that point;

“fill” means earth, sand, gravel, rubble, rubbish, garbage or any other material, whether similar to or different from any of the aforementioned materials, and whether originating on the site or elsewhere, used or capable of being used to raise, lower or in any way affect the contours of the ground;

“fill line” means any line designated as such on the maps referred to in the schedules;

“mm” means millimetres;

“regional storm” means,

- (a) for watercourses and tributaries of Shriner’s Creek, Ten Mile Creek, Beaverdams Creek and Tributary W-6-5 in the City of Niagara Falls, a storm producing in a forty-eight hour period, in a drainage area of,
 - (i) twenty-five square kilometres or less, a rainfall that has the distribution set out in Table 1, or
 - (ii) more than twenty-five square kilometres, a rainfall that has the number of millimetres of rain referred to in each case in Table 1 modified by the percentage amount shown in Column 2 of Table 2 opposite the size of the drainage area set out opposite thereto in Column 1 of Table 2;
- (b) for all other watercourses within the jurisdictional area of the Authority an event, consisting of rainfall, snowmelt or any combination thereof, that would produce (at a specified point in the watercourse) a flood which has the probability of occurrence or exceedence of 1 per cent in any given year;

TABLE 1

73 mm of rain in the first 36 hours
6 mm of rain in the 37th hour
4 mm of rain in the 38th hour
6 mm of rain in the 39th hour
13 mm of rain in the 40th hour
17 mm of rain in the 41st hour
13 mm of rain in the 42nd hour
23 mm of rain in the 43rd hour
13 mm of rain in the 44th hour
13 mm of rain in the 45th hour
53 mm of rain in the 46th hour
38 mm of rain in the 47th hour
13 mm of rain in the 48th hour

TABLE 2

COLUMN 1	COLUMN 2
Drainage Area (in square kilometres)	Percentage
26 to 45 both inclusive	99.2
46 to 65 both inclusive	98.2
66 to 90 both inclusive	97.1
91 to 115 both inclusive	96.3
116 to 140 both inclusive	95.4
141 to 165 both inclusive	94.8
166 to 195 both inclusive	94.2
196 to 220 both inclusive	93.5
221 to 245 both inclusive	92.7
246 to 270 both inclusive	92.0
271 to 450 both inclusive	89.4
451 to 575 both inclusive	86.7
576 to 700 both inclusive	84.0
701 to 850 both inclusive	82.4
851 to 1000 both inclusive	80.8
1001 to 1200 both inclusive	79.3

“river”, “creek”, “stream” or “watercourse” means any river, creek, stream or watercourse within the area of jurisdiction of the Authority;

“structure” means that which is formed for a specific use by combining materials or parts;

“swamp” means any lands that are seasonally or permanently covered by shallow water as well as lands where the water table is close to or at the surface, and includes marshes, bogs and fens. O. Reg. 99/91, s. 1.

2. The areas described in the Schedules, and areas susceptible to flooding during a regional storm, are defined areas in which, in the opinion of the Authority, the control of flooding or pollution or the conservation of land may be affected by the placing or dumping of fill. O. Reg. 99/91, s. 2.

3. Unless prior written approval is obtained through section 4, no person shall,

- (a) construct any building or structure or permit any building or structure to be constructed in or on a pond or swamp or in any area susceptible to flooding during a regional storm;
- (b) place or dump fill or permit fill to be placed or dumped, permanently or temporarily in the areas described in the Schedules whether such fill is already located in or upon such area, or brought to or on such area from some other place or places; or

- (c) straighten, change, divert or interfere or permit the straightening, changing, diversion or interference in any way with the existing channel of a river, creek, stream or watercourse. O. Reg. 99/91, s. 3.

4. Notwithstanding section 3, the Authority may permit in writing the construction of any building or structure or the placing or dumping of fill or the straightening, changing, diverting or interfering with the existing channel of a river, creek, stream or watercourse to which section 3 applies, if, in the opinion of the Authority, the site of the building or structure or the placing or dumping and the method of construction or placing or dumping or the straightening, changing, diverting or interfering with the existing channel will not affect the control of flooding or pollution or the conservation of land. O. Reg. 99/91, s. 4.

5. No person shall commence to construct any building or structure or dump or place fill or straighten, change, divert or interfere with the existing channel of a river, creek, stream or watercourse in any area to which section 3 applies before permission to do so has been obtained under section 4. O. Reg. 99/91, s. 5.

6.—(1) A signed application for permission to construct a building or structure shall be filed with the Authority and shall include one copy of,

- a plan of the property showing the proposed location of the building or structure, its elevation and the proposed final grade plan;
- a complete description of the type of building or structure to be constructed, including drainage details and the method of construction;
- a statement of the dates between which the construction will be carried out; and
- a statement of the proposed use of the building or structure following completion of the construction.

(2) A signed application for permission to place or dump fill shall be filed with the Authority and shall include one copy of,

- a plan of the property on which the fill is to be placed, showing the proposed location of filling, the depth to which it is proposed to fill and the proposed final grade of the land when filling is completed;
- a complete description of the type of fill proposed to be placed or dumped and the method of placing or dumping;
- a statement of the dates between which the placing or dumping of the fill will be carried out; and
- a statement of the proposed use of the land following completion of the placing or dumping.

(3) A signed application for permission to straighten, change, divert or interfere in any way with the existing channel of a river, creek, stream or watercourse shall be filed with the Authority and shall include one copy of,

- a plan on which shall be shown in plan view and cross section the details of such straightening, change, diversion or interference;
- a complete description of the type of fill proposed to be placed or dumped and the method of placing or dumping;
- a statement of the dates between which the straightening, changing, diverting or interfering will be carried out; and
- a statement of the purpose of the proposed work. O. Reg. 99/91, s. 6.

7. The Authority may, at any time, withdraw any permission given under section 4 if, in the opinion of the Authority, the conditions of the permit are not complied with. O. Reg. 99/91, s. 7.

8. The Authority may, from time to time, appoint officers to enforce this Regulation. O. Reg. 99/91, s. 8.

9. Ontario Regulation 82/86 is revoked.

Schedule 1

In The Regional Municipality of Niagara, as shown delineated by fill lines on maps filed in the Regional Office of the Ministry of Natural Resources at Aurora as Map numbers NP 1-1 to NP 1-8, dated July, 1976, both inclusive, more particularly described as follows:

Twelve Mile Creek

1. That part of the watershed of Twelve Mile Creek extending from Wellandvale Road in the City of St. Catharines in The Regional Municipality of Niagara, formerly in the Township of Grantham in the County of Lincoln, to its outlet into Lake Ontario in the City of St. Catharines in The Regional Municipality of Niagara, formerly in the Township of Grantham in the County of Lincoln, composed of those parts of the following lots and concessions:

- (a) in the City of St. Catharines (formerly in the Township of Grantham)

Concession	Lot
Broken Front	Part of 21
I	Parts of 20 to 23, both inclusive
II	Parts of 20 to 23, both inclusive
III	Parts of 22 and 23
IV	Parts of 21 to 23, both inclusive
V	Parts of 21 to 23, both inclusive
VI	Parts of 20 and 21

- (b) in the City of St. Catharines (formerly in the Township of Louth)

Concession	Lot
Broken Front	Part of 1
I	Part of 1

Richardson Creek

2. That part of the watershed of Richardson Creek extending from Lot 23 in Concession VIII, in the City of St. Catharines in The Regional Municipality of Niagara, formerly in the Township of Grantham in the County of Lincoln, to its confluence with Twelve Mile Creek in the City of St. Catharines in The Regional Municipality of Niagara, formerly in the Township of Louth and the Township of Grantham in the County of Lincoln, composed of those parts of the following lots and concessions:

- (a) in the City of St. Catharines (formerly in the Township of Louth)

Concession	Lot
Broken Front	Parts of 1 and 2
I	Parts of 1 and 2
II	Parts of 1 and 2
III	Parts of 1 and 2
IV	Part of 1
V	Part of 1

- (b) in the City of St. Catharines (formerly in the Township of Grantham)

Concession	Lot
V	Part of 23
VI	Part of 23
VII	Part of 23
VIII	Part of 23

Francis Creek

3. That part of the watershed of Francis Creek extending from Lot 21 in Concession VIII, in the City of St. Catharines in The Regional Municipality of Niagara, formerly in the Township of Grantham in the County of Lincoln, to its confluence with Richardson Creek in the City of St. Catharines in The Regional Municipality of Niagara, formerly in the Township of Louth in the County of Lincoln, composed of the following lots and concessions:

- (a) in the City of St. Catharines (formerly in the Township of Grantham)

Concession	Lot
VI	Parts of 21 to 23, both inclusive
VII	Parts of 21 and 22
VIII	Parts of 20 and 21

- (b) in the City of St. Catharines (formerly in the Township of Louth)

Concession	Lot
IV	Part of 1

Grapeview Creek

4. That part of the watershed of Grapeview Creek extending from Lot 22 in Concession V, in the City of St. Catharines in The Regional Municipality of Niagara, formerly in the Township of Grantham in the County of Lincoln, to its confluence with Richardson Creek in the City of St. Catharines in The Regional Municipality of Niagara, formerly in the Township of Louth in the County of Lincoln, composed of the following lots and concessions:

- (a) in the City of St. Catharines (formerly in the Township of Louth)

Concession	Lot
I	Part of 1
II	Part of 1

- (b) in the City of St. Catharines (formerly in the Township of Grantham)

Concession	Lot
III	Part of 23
IV	Part of 23
V	Parts of 22 and 23

O. Reg. 99/91, Sched. 1.

Schedule 2

In The Regional Municipality of Niagara, as shown delineated by fill lines on maps in the Regional Office of the Ministry of Natural Resources at Richmond Hill as Map numbers NP 2-1 to NP 2-3, NP 2-5 and NP 2-6, dated May, 1974, and NP 2-4, dated May, 1974, more particularly described as follows:

Beaverdams Creek and Tributary W-6-5

1. That part of the watershed of Beaverdams Creek and Tributary W-6-5 in the City of Niagara Falls, formerly in the Township of Stamford in the County of Welland, being composed of those parts of the following lots:

Lot
Parts of 101 to 103, both inclusive
Parts of 118 to 120, both inclusive
Parts of 136 to 138, both inclusive
Parts of 151 to 154, both inclusive

Shriner's Creek

2. That part of the watershed of Shriner's Creek in the City of Niagara Falls, formerly in the Township of Stamford in the County of Welland, being composed of those parts of the following lots:

Lot

Parts of 53, 54, 63, 69, 70, 80, 81
 Parts of 83 to 86, both inclusive
 Parts of 99 to 101, both inclusive
 Part of 103

Ten Mile Creek

3. That part of the watershed of Ten Mile Creek in the City of Niagara Falls, formerly in the Township of Stamford in the County of Welland, being composed of those parts of the following lots:

Lot
Parts of 32, 48, 50, 51, 66

O. Reg. 99/91, Sched. 2.

Schedule 3

In The Regional Municipality of Niagara, as shown delineated by fill lines on maps filed in the Regional Office of the Ministry of Natural Resources at Aurora as Map numbers NP 3-1 to NP 3-10, dated July, 1977, both inclusive, more particularly described as follows:

Lyon's Creek

1. That part of the watershed of Lyon's Creek extending from the St. Lawrence Seaway Authority Service Road adjacent to the eastern bank of the Welland Canal in the City of Welland in The Regional Municipality of Niagara, formerly in the Township of Crowland in the County of Welland, to its outlet into the Welland River in the City of Niagara Falls in The Regional Municipality of Niagara, formerly in the Township of Willoughby in the County of Welland, composed of those parts of the following lots and concessions:

- (a) in the City of Welland (formerly in the Township of Crowland)

Concession	Lot
VII	Parts of 17 to 20, both inclusive
VI	Parts of 15 to 20, both inclusive
V	Parts of 11 to 16, both inclusive
IV	Parts of 10 to 13, both inclusive

- (b) in the City of Niagara Falls (formerly in the Township of Crowland)

Concession	Lot
IV	Parts of 1 to 9, both inclusive
III	Part of 1

- (c) in the City of Niagara Falls (formerly in the Township of Willoughby)

Concession	Lot
VII	Parts of 7 to 15, both inclusive
VI	Parts of 14 to 16, both inclusive
V	Parts of 15 and 16
Broken Front, Welland River	Parts of 1 to 6, both inclusive
III	Parts of 19 to 21, both inclusive

O. Reg. 99/91, Sched. 3.

THE NIAGARA PENINSULA CONSERVATION AUTHORITY:

JACK HICKEY
Chairman

ANDY L. BURT
Secretary-Treasurer

Dated at Allanburg, this 30th day of August, 1990.

14/91

FARM IMPLEMENTS ACT, 1988

O. Reg. 100/91.

General.

Made—January 29th, 1991.

Approved—March 20th, 1991.

Filed—March 21st, 1991.

REGULATION TO AMEND
ONTARIO REGULATION 223/90
MADE UNDER THE
FARM IMPLEMENTS ACT, 1988

1. Ontario Regulation 223/90 is amended by adding the following French version:

DISPOSITIONS GÉNÉRALES

1 Les dispositions de la Loi et du présent règlement ne s'appliquent pas aux appareils agricoles suivants :

1. Les véhicules automobiles, au sens du *Code de la route*.
2. Les tracteurs qui, selon la puissance nominale indiquée par le fabricant, sont équipés d'un moteur développant vingt chevaux-vapeur ou moins.
3. Le matériel de jardinage et d'entretien des pelouses.
4. Les pneus équipant un appareil agricole. Règl. de l'Ont. 100/91, art. 1, *en partie*.

2 Aux fins de l'article 2 de la Loi, le prix courant proposé par le fabricant pour un appareil agricole est de 3 500 \$. Règl. de l'Ont. 100/91, art. 1, *en partie*.

3 La Commission comprend au moins sept membres, et au plus onze, dont au moins un fabricant, un distributeur et un vendeur d'appareils agricoles, ainsi qu'un représentant d'une organisation agricole et trois agriculteurs indépendants. Règl. de l'Ont. 100/91, art. 1, *en partie*.

4 (1) Toute personne demandant son inscription à titre de vendeur :

- a) acquitte un droit de 200 \$;
- b) communique à la Commission :
 - (i) le nom de l'auteur de la demande, à titre de particulier, société en nom collectif ou personne morale,
 - (ii) le nom sous lequel l'auteur de la demande exploite son entreprise,
 - (iii) l'adresse et le numéro de téléphone du principal établissement de l'auteur de la demande en Ontario,
 - (iv) le nom du propriétaire ou du gérant du principal établissement de l'auteur de la demande en Ontario,
 - (v) une description des locaux à partir desquels l'auteur de la demande fournit ses services à sa clientèle,
 - (vi) le nombre de mécaniciens qu'emploie l'auteur de la demande, en précisant le nombre de mécaniciens brevetés, le nombre d'apprentis mécaniciens et le nombre d'employés du service des pièces de rechange;
- c) remet à la Commission :
 - (i) une copie de chaque contrat de vente d'appareils agricoles,

LOI DE 1988 SUR LES APPAREILS AGRICOLES

Règl. de l'Ont. 100/91

Dispositions générales

pris—le 29 janvier 1991

approuvé—le 20 mars 1991

déposé—le 21 mars 1991

RÈGLEMENT PORTANT MODIFICATION
DU RÈGLEMENT DE L'ONTARIO 223/90
PRIS EN APPLICATION DE LA
LOI DE 1988 SUR LES APPAREILS AGRICOLES

1. Le Règlement de l'Ontario 223/90 est modifié par l'adjonction de la version française suivante :

- (ii) une liste de tous les distributeurs que représente l'auteur de la demande,
- (iii) une liste de toutes les marques d'appareils agricoles en vente dans l'établissement de l'auteur de la demande,
- (iv) une copie du contrat conclu entre l'auteur de la demande et les distributeurs qu'il représente au sujet de la vente, de la consignation ou de la livraison d'appareils agricoles.

(2) Toute personne demandant son inscription à titre de distributeur :

- a) acquitte un droit de 300 \$;
- b) indique à la Commission :
 - (i) le nom de l'auteur de la demande, à titre de particulier, société en nom collectif ou personne morale,
 - (ii) le nom sous lequel l'auteur de la demande exploite son entreprise,
 - (iii) l'adresse et le numéro de téléphone du principal établissement de l'auteur de la demande en Ontario,
 - (iv) l'adresse de tout dépôt de pièces de rechange exploité par l'auteur de la demande en Ontario,
 - (v) les noms du responsable du service des pièces de rechange, du responsable du service après vente et du responsable des ventes, ou de tous les autres employés remplissant des fonctions similaires pour le compte de l'auteur de la demande, dans l'établissement principal de ce dernier en Ontario;
- c) remet à la Commission :
 - (i) une copie de tous les contrats conclus entre l'auteur de la demande et un vendeur pour la vente, la consignation ou la livraison d'appareils agricoles,
 - (ii) une copie de tous les documents de garantie relatifs à des appareils agricoles vendus, mis en consignation ou livrés à des vendeurs par l'auteur de la demande,
 - (iii) une liste de toutes les marques d'appareils agricoles vendus, mis en consignation ou livrés à des vendeurs par l'auteur de la demande,
 - (iv) une liste de tous les vendeurs avec lesquels l'auteur de la demande a conclu un contrat de vente, consignation ou livraison d'appareils agricoles.

(3) La Commission peut dispenser l'auteur de la demande de satisfaire à l'une quelconque des exigences énoncées aux alinéas (1) b) et c) ou (2) b) et c).

(4) Tout distributeur inscrit qui demande son inscription à titre de vendeur est exempté de l'obligation de verser la somme prévue à l'alinéa (1) a).

(5) Tout vendeur inscrit qui demande son inscription à titre de distributeur paie un droit de 100 \$ au lieu de la somme prévue à l'alinéa (2) a).

(6) Toute personne qui demande son inscription à titre de vendeur et de distributeur paie un droit de 300 \$ au lieu des sommes prévues aux alinéas (1) a) et (2) a).

(7) Le droit à verser par une personne s'inscrivant en cours d'année est calculé en fonction de la période restant à courir jusqu'à la fin de l'année. Règl. de l'Ont. 100/91, art. 1, *en partie*.

5 Le vendeur doit, à tout moment :

- a) afficher de façon clairement visible son certificat d'inscription dans les locaux de son établissement principal;
- b) exposer et tenir à la disposition des acheteurs toutes les publications que lui indique la Commission. Règl. de l'Ont. 100/91, art. 1, *en partie*.

6 (1) L'inscription prévue à l'article 4 prend effet à partir :

- a) du 1^{er} janvier, si la demande est acceptée dans le courant de l'année précédente;
- b) du jour où la demande est acceptée, si celle-ci est faite dans le courant de l'année pour laquelle l'inscription est demandée.

(2) L'inscription prévue à l'article 4 expire le 31 décembre de chaque année. Règl. de l'Ont. 100/91, art. 1, *en partie*.

7 Tout vendeur d'appareils agricoles doit, au moment de la livraison d'un appareil agricole à l'acheteur :

- a) veiller à ce que tous les autocollants de sécurité et les dispositifs de protection fournis par le fabricant soient en place sur l'appareil;
- b) fournir un manuel et des instructions d'utilisation;
- c) indiquer à l'acheteur toutes les précautions d'emploi que préconise le fabricant;
- d) se faire remettre par l'acheteur une confirmation écrite indiquant qu'il s'est conformé aux alinéas a), b) et c). Règl. de l'Ont. 100/91, art. 1, *en partie*.

8 Si un acheteur indique par écrit à un vendeur qu'il a besoin de pièces de secours pour réparer un appareil agricole, le vendeur l'informe, par écrit, du montant qu'il faudra payer pour obtenir ces pièces de secours, et des obligations auxquelles sont assujettis, en vertu de l'article 19 de la Loi, les vendeurs et les distributeurs. Règl. de l'Ont. 100/91, art. 1, *en partie*.

9 Aux fins du paragraphe 19 (4) de la Loi, le montant maximum des frais de service facturés en exécution d'une commande d'une pièce de secours ne dépasse pas 5 pour cent du prix courant proposé par le fabricant pour la pièce. Règl. de l'Ont. 100/91, art. 1, *en partie*.

10 Aux fins du paragraphe 26 (2) de la Loi, le taux d'intérêt équivaut :

- a) au taux d'intérêt qui, en vertu du contrat conclu entre le distributeur et le vendeur, est dû au distributeur en cas de retard dans tout paiement prévu par le contrat;

- b) au taux d'intérêt préférentiel perçu par les principaux établissements de crédit à la date d'échéance prévue au paragraphe 26 (1) de la Loi, plus 1 pour cent, si aucun contrat n'a été conclu entre le distributeur et le vendeur. Règl. de l'Ont. 100/91, art. 1, *en partie*.

11 Aucun vendeur ne vend ou met en vente un nouveau tracteur non équipé d'un cadre de protection et d'un dispositif de retenue conformes aux exigences du Règlement de l'Ontario 524/88, à part celles prévues à l'article 3. Règl. de l'Ont. 100/91, art. 1, *en partie*.

12 Le présent règlement entre en vigueur le jour de la proclamation de la Loi.

COMMISSION DES APPAREILS AGRICOLES DE L'ONTARIO :

FRED A. LEWIS
Président

FINBAR DESIR
Secrétaire

Fait à Toronto le 29 janvier 1991.

14/91

GAME AND FISH ACT

O. Reg. 101/91.

Open Seasons—Game Birds.

Made—March 20th, 1991.

Filed—March 21st, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 501/81
MADE UNDER THE
GAME AND FISH ACT**

1. Section 13a of Ontario Regulation 501/81, as made by section 1 of Ontario Regulation 687/86 and amended by section 1 of Ontario Regulation 673/87, is revoked and the following substituted:

13a.—(1) Subject to subsections (2) and (3), a holder of a valid licence in Form 5 of Regulation 420 of Revised Regulations of Ontario, 1980 may hunt a wild turkey with a beard in wildlife management units 68, 71, 72, 73, 76D, 77, 81, 87B, 87C, 87D, 88, 89 and 90B during the period starting the Monday following the last Saturday in April and ending the last Friday before Victoria Day in any year, subject to the following conditions:

1. The hunting is done during the period beginning one-half hour before sunrise and ending at 12 o'clock noon.
2. The holder affixes a tag in Form 12 of Regulation 420 of Revised Regulations of Ontario, 1980 to the licence before the hunt.
3. The holder does not shoot more than one wild turkey with a beard, or having shot one, attempt to shoot another.
4. The holder uses,
 - i. a shotgun, including a muzzle-loading shotgun, not larger than number 10 gauge and not smaller than number 20 gauge loaded with shot sizes number 4, 5 or 6, or
 - ii. a cross-bow, long-bow, arrow or bolt specified in section 1 of Regulation 405 of Revised Regulations of Ontario.
5. The holder does not use decoys.

6. The holder takes the intact carcass of any wild turkey with a beard that he or she kills to a person designated by the Minister to register wild turkeys between 8 a.m. and 2 p.m. on the day of the kill.

(2) A licence in Form 5 of Regulation 420 of Revised Regulations of Ontario, 1980 is not valid for hunting a wild turkey with a beard in wildlife management unit 88 or 89 unless the holder's name has been selected in a draw conducted by the Ministry and the holder has on his or her person while hunting a certificate of the selection issued by the district manager of the administrative district of the Ministry.

(3) A person who is not a resident may not hunt a wild turkey with a beard in wildlife management unit 88 or 89. O. Reg. 101/91, s. 1.

2. Schedule 6 to the Regulation, as remade by section 1 of Ontario Regulation 631/89, is revoked.

14/91

GAME AND FISH ACT

O. Reg. 102/91.
Hunting Licences.
Made—March 20th, 1991.
Filed—March 21st, 1991.

REGULATION TO AMEND
REGULATION 420 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
GAME AND FISH ACT

1.—(1) Section 2 of Regulation 420 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 138/83 and amended by section 1 of Ontario Regulation 376/83, section 1 of Ontario Regulation 688/86, sections 1 and 2 of Ontario Regulation 410/87, section 1 of Ontario Regulation 58/88 and section 1 of Ontario Regulation 725/88, is further amended by adding the following subsection:

(7c) No person shall possess more than one tag in Form 12 and more than one seal provided with the tag. O. Reg. 102/91, s. 1(1).

(2) Subsection 2(11) of the Regulation, as made by section 1 of Ontario Regulation 688/86, is revoked.

2. Form 12 of the Regulation, as made by section 5 of Ontario Regulation 688/86, is revoked and the following substituted:

Form 12

Game and Fish Act

WILD TURKEY VALIDATION TAG 19 . .

Tag Serial Number

This tag authorizes

(Last Name)

(First Name) (Middle Initial)

to take a wild turkey with a beard during the open season.

A hunter may not hunt in wildlife management unit 88 or 89 unless the hunter's name has been selected in a draw conducted by the Ministry of

Natural Resources and the hunter carries on his or her person while hunting a certificate that his or her name was selected, issued by the district manager of the administrative district of the Ministry.

Remove the backing from this tag and stick the tag to the back of your licence to hunt small game. O. Reg. 102/91, s. 2.

14/91

GAME AND FISH ACT

O. Reg. 103/91.
Fishing Licences.
Made—March 20th, 1991.
Filed—March 21st, 1991.

REGULATION TO AMEND
ONTARIO REGULATION 526/86
MADE UNDER THE
GAME AND FISH ACT

1. Ontario Regulation 526/86 is amended by adding the following section:

16a.—(1) A licence in Form 6 may be issued to a non-resident or a Canadian resident.

(2) The fee for a licence in Form 6 is \$15.50.

(3) The non-resident or Canadian resident holder of a licence in Form 6 shall report to the Ministry in writing the quantity and species of bait fish sold.

(4) The report shall be forwarded to the district manager not later than the 31st day of January next following the expiry of the licence. O. Reg. 103/91, s. 1.

2. The Regulation is further amended by adding the following sections:

20.—(1) A licence in Form 1 or 13 is not valid for catching and retaining lake trout taken by angling from Clearwater Bay or Echo Bay of Lake of the Woods or from Cul de Sac Lake unless the licence holder has been issued a tag in Form 28.

(2) A tag in Form 28 shall not be issued to a licence holder unless he or she files an application with the Ministry and his or her name is selected in a draw conducted by the Ministry.

(3) No person shall submit more than one application or possess more than one tag in Form 28 in a year.

(4) There is no fee for a tag in Form 28.

(5) A licence holder who is issued a tag shall attach it to the back of his or her licence.

(6) A licence holder who catches and retains a lake trout from the waters referred to in subsection (1) shall attach the seal provided with the tag to the lower jaw of the lake trout immediately after catching it at the site where it was caught, and shall keep the seal attached to the lake trout while it is being transported. O. Reg. 103/91, s. 2, part.

21.—(1) A licence issued to a person to collect fish for scientific and educational purposes shall be in Form 29.

(2) There is no fee for a licence in Form 29.

(3) The holder of a licence in Form 29 shall report to the Ministry in writing the quantity and species of fish collected.

(4) The report shall be forwarded to the district manager not later than the 31st day of January next following the expiry of the licence.

(5) A licence in Form 29 is valid during the period specified in the licence. O. Reg. 103/91, s. 2, part.

3. The Regulation is further amended by adding the following Forms:

Form 28

Game and Fish Act

CLEARWATER BAY
SERIAL No.
LAKE TROUT TAG

O. Reg. 103/91, s. 3, part.

Form 29

Game and Fish Act

LICENCE TO COLLECT FISH FOR SCIENTIFIC PURPOSES

Under the Game and Fish Act and the Regulations, and subject to the limitations thereof and the limitations of the Fisheries Act (Canada) and the Ontario Fishery Regulations, 1989, this licence is granted to:

NAME:

ADDRESS (mailing)

to collect (species, size and quantity of fish)

from the waters of

for the purpose of

subject to the following conditions:

- 1.
2.
3.
4.
5.

(continue on additional page if necessary).

This licence expires with the ... day of ... (month) (year)

issued at ... this ... day of ... (District Office) (month) (year)

Signature of licensee Signature of issuer

O. Reg. 103/91, s. 3, part.

4. This Regulation comes into force on the 1st of February, 1991.

14/91

HEALTH INSURANCE ACT

O. Reg. 104/91.

General.

Made—March 20th, 1991.

Filed—March 21st, 1991.

REGULATION TO AMEND
REGULATION 452 OF REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
HEALTH INSURANCE ACT

1. Item 66 of Part 1 of Schedule 9 to Regulation 452 of Revised Regulations of Ontario, 1980 is revoked and the following substituted:

66. Tillsonburg Tillsonburg Physiotherapy Clinic

14/91

PUBLIC HOSPITALS ACT

O. Reg. 105/91.

Classification of Hospitals.

Made—March 7th, 1991.

Approved—March 20th, 1991.

Filed—March 21st, 1991.

REGULATION TO AMEND
REGULATION 863 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
PUBLIC HOSPITALS ACT

1.—(1) The Schedule to Regulation 863 of Revised Regulations of Ontario, 1980, as remade by section 2 of Ontario Regulation 110/87 and amended by section 2 of Ontario Regulation 282/87, section 2 of Ontario Regulation 436/87, section 1 of Ontario Regulation 615/88, section 1 of Ontario Regulation 207/89 and section 2 of Ontario Regulation 652/89, is further amended by adding the following item under the heading "Group B Hospitals":

18a. Georgetown Georgetown and District Memorial Hospital

(2) Item 32 under the heading "Group C Hospitals" in the Schedule is revoked.

(3) Item 3 under the heading "Group E Hospitals" in the Schedule is revoked and the following substituted:

3. Cornwall Cornwall General Hospital (General Rehabilitation Unit)

(4) The Schedule is further amended by adding the following item under the heading "Group E Hospitals":

20a. Stratford Stratford General Hospital (General Rehabilitation Unit)

(5) Item 26 under the heading "Group G Hospitals" in the Schedule is revoked and the following substituted:

26. Cornwall Hôtel Dieu Hospital (Chronic Care Unit)

(6) The Schedule is further amended by renumbering item 1 under the heading "Group M Hospitals" as item 1b and by adding the following items:

1. Barrie Royal Victoria Hospital
1a. Brampton Peel Memorial Hospital

(7) The Schedule is further amended by adding the following items under the heading "Group M Hospitals":

- 8a. Kingston Hôtel Dieu Hospital
.
13a. Mississauga Credit Valley Hospital
.
28a. Sudbury Laurentian Hospital

EVELYN GIGANTES
Minister of Health

Dated at Toronto, this 7th day of March, 1991.

14/91

PSYCHOLOGISTS REGISTRATION ACT

O. Reg. 106/91.

General.

Made—February 12th, 1991.

Approved—March 20th, 1991.

Filed—March 21st, 1991.

REGULATION TO AMEND REGULATION 825 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE PSYCHOLOGISTS REGISTRATION ACT

1. Subsection 5 (1) of Regulation 825 of Revised Regulations of Ontario, 1980, as remade by section 3 of Ontario Regulation 117/89, is revoked and the following substituted:

(1) An applicant for a certificate of registration shall pay a fee of \$230. O. Reg. 106/91, s. 1.

2. Subsections 6 (2) and (3) of the Regulation, as remade by section 4 of Ontario Regulation 117/89, are revoked and the following substituted:

(2) The fee payable for a renewal of a certificate of registration before the certificate expires is \$400.

(3) Despite subsection (2), the fee payable for a renewal of certificate of registration before the certificate expires, if the holder of the certificate resides outside Ontario and does not render services in psychology in Ontario, is \$120. O. Reg. 106/91, s. 2.

3. Section 7 of the Regulation, as remade by section 3 of Ontario Regulation 225/85 and amended by section 5 of Ontario Regulation 117/89, is revoked and the following substituted:

7.—(1) The fee payable for a renewal of a certificate of registration that has expired, if the former holder applies for renewal within two years after the expiration, is \$450.

(2) Despite subsection (1), the fee payable for a renewal of a certificate of registration that has expired, if the former holder resides outside Ontario, does not render services in psychology in Ontario and applies for renewal within two years after the expiration, is \$170. O. Reg. 106/91, s. 3.

4. Subsection 8 (2) of the Regulation, as remade by section 6 of Ontario Regulation 117/89, is revoked and the following substituted:

(2) The fee for an examination for registration is \$490. O. Reg. 106/91, s. 4.

ONTARIO BOARD OF EXAMINERS IN PSYCHOLOGY:

G. H. PHILLS
Chairman

BARBARA WAND
Registrar

Dated at Toronto, this 12th day of February, 1991.

14/91

HEALING ARTS RADIATION PROTECTION ACT

O. Reg. 107/91.

Hospitals Prescribed For The Installation and Operation of Computerized Axial Tomography Scanners.

Made—March 20th, 1991.

Filed—March 21st, 1991.

REGULATION TO AMEND ONTARIO REGULATION 344/84 MADE UNDER THE HEALING ARTS RADIATION PROTECTION ACT

1.—(1) Items 14 and 26 of the Table to section 1 of Ontario Regulation 344/84, as made by section 1 of Ontario Regulation 237/86, are revoked and the following substituted:

14.	Ottawa Civic	2
26.	Toronto St. Michael's	2

(2) The Table to section 1 of the Regulation, as remade by section 1 of Ontario Regulation 237/86 and amended by section 1 of Ontario Regulation 557/86, section 1 of Ontario Regulation 24/87, section 1 of Ontario Regulation 241/87 and section 1 of Ontario Regulation 461/88, is further amended by adding the following items:

46.	Kingston Hotel Dieu Hospital	1
47.	Royal Victoria Hospital Barrie	1
48.	Markham Stouffville Hospital	1
49.	Laurentian Hospital Sudbury	1

14/91

MENTAL HEALTH ACT

O. Reg. 108/91.

Application of Act.

Made—March 20th, 1991.

Filed—March 21st, 1991.

REGULATION TO AMEND REGULATION 609 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE MENTAL HEALTH ACT

1. Schedule 1 to section 1 of Regulation 609 of Revised Regulations of Ontario, 1980 is amended by renumbering item 26a as 26b and by adding the following item:

26a. Markham Markham-Stouffville Hospital

14/91

HEALTH PROTECTION AND PROMOTION ACT, 1983

O. Reg. 109/91.
 Rabies—Immunization.
 Made—March 20th, 1991.
 Filed—March 21st, 1991.

**REGULATION TO AMEND
 ONTARIO REGULATION 594/85
 MADE UNDER THE
 HEALTH PROTECTION AND PROMOTION ACT, 1983**

1. Table 1 of Ontario Regulation 594/85 is amended by adding the following item:

20. Sudbury and District Health Unit April 1, 1991

2. Table 2 of the Regulation is amended by adding the following item:

7. Sudbury and District Health Unit Riding horse April 1, 1991

14/91

**TORONTO AREA TRANSIT OPERATING
 AUTHORITY ACT**

O. Reg. 110/91.
 General.
 Made—February 20th, 1991.
 Approved—March 20th, 1991.
 Filed—March 21st, 1991.

**REGULATION TO AMEND
 REGULATION 935 OF REVISED REGULATIONS
 OF ONTARIO, 1980
 MADE UNDER THE
 TORONTO AREA TRANSIT OPERATING
 AUTHORITY ACT**

1. Regulation 935 of Revised Regulations of Ontario, 1980 is amended by adding the following section:

1a. Federal Goods and Services Tax is included in the amounts shown in the Table but not in the amounts shown in the Schedule. O. Reg. 110/91, s. 1.

2.—(1) Subsection 2 (1) of the Regulation, as remade by section 1 of Ontario Regulation 386/88 and amended by section 1 of Ontario Regulation 323/90, is revoked and the following substituted:

(1) Except as otherwise provided in this section, the amount to be paid for a single one-way ride on a transit system operated by or for the Authority is the applicable amount set out in the Schedule plus the applicable Federal Goods and Services Tax, rounded to the nearest nickel. O. Reg. 110/91, s. 2 (1).

(2) Subsection 2(2) of the Regulation, as remade by section 1 of Ontario Regulation 386/88, is revoked and the following substituted:

(2) A single one-way ride ticket is valid only for passage on the next available trip. O. Reg. 110/91, s. 2 (2).

(3) Subsection 2 (3) of the Regulation, as remade by section 1 of Ontario Regulation 386/88 and amended by section 1 of Ontario Regulation 208/89 and section 1 of Ontario Regulation 323/90, is revoked and the following substituted:

(3) The fare to be paid for,

- (a) a ten-ride ticket;
- (b) a ten-ride student ticket;
- (c) an adult monthly pass;
- (d) a student monthly pass; or
- (e) a group pass,

is the amount in the appropriate column of the Table that is set out opposite the amount in the Single column of the Table that a passenger would pay under subsection (1) for a single one-way ride. O. Reg. 110/91, s. 2 (3).

(4) Subsection 2 (4) of the Regulation, as remade by section 1 of Ontario Regulation 386/88, is revoked and the following substituted:

(4) The fare to be paid by a senior citizen who presents proof of age is the amount in the Half column of the Table that is set out opposite the amount in the Single column of the Table that a passenger would pay under subsection (1) for a single one-way ride. O. Reg. 110/91, s. 2 (4).

(5) Subsection 2 (5) of the Regulation, as remade by section 1 of Ontario Regulation 386/88, is revoked and the following substituted:

(5) Except as provided in subsections (6) and (9), the fare to be paid for a child under twelve years of age is the amount in the Half column of the Table set out opposite the amount in the Single column of the Table that a passenger would pay under subsection (1) for a single one-way ride. O. Reg. 110/91, s. 2 (5).

(6) Clause 2 (22) (a) of the Regulation, as remade by section 1 of Ontario Regulation 386/88, is revoked and the following substituted:

(a) for a single one-way ride, 60 cents plus the amount of the applicable fare under subsection (1); and

(7) Clause 2 (22) (b) of the Regulation, as remade by section 1 of Ontario Regulation 333/85, is revoked and the following substituted:

(b) for a pass or ten one-way tickets, the amount in the applicable column of the Table that corresponds to the amount in the Single column of the Table that is equal to 60 cents plus the single one-way fare payable under subsection (1).

(8) Clause 2 (27) (b) of the Regulation, as remade by section 1 of Ontario Regulation 33/90, is revoked and the following substituted:

(b) shall be sold together with a Toronto Transit Commission monthly pass at the appropriate amount set out in the Twin column of the Table plus the current Toronto Transit Commission monthly pass rate less \$10.

3. Subsection 4 (2) of the Regulation, as remade by section 2 of Ontario Regulation 386/88, is revoked and the following substituted:

(2) A passenger, when requested, shall show a ticket to the proper authority and if the passenger fails to do so the passenger may be refused passage on the transit system and shall be required to pay the maximum fare, calculated in accordance with subsection 2 (1), for passage from the point of origin of the train or bus service to the place where the passenger disembarks. O. Reg. 110/91, s. 3.

4. The Table to the Regulation, as remade by section 1 of Ontario Regulation 341/87, is revoked and the following substituted:

Fare Conversion Table

<u>SINGLE</u>	<u>TENS</u>	<u>HALF</u>	<u>ADULT</u>	<u>STUDENT</u>	<u>S-TENS</u>	<u>GROUP</u>	<u>TWIN</u>
1.80	16.25	0.90	57.00	35.00	13.50	7.20	47.00
1.85	16.75	0.95	58.00	36.00	13.75	7.40	48.00
1.90	17.25	0.95	60.00	37.00	14.25	7.60	50.00
1.95	17.75	1.00	62.00	38.00	14.50	7.80	52.00
2.00	18.00	1.00	63.00	39.00	15.00	8.00	53.00
2.05	18.50	1.05	65.00	40.00	15.25	8.20	55.00

Fare Conversion Table

SINGLE	TENS	HALF	ADULT	STUDENT	S-TENS	GROUP	TWIN
2.10	19.00	1.05	66.00	41.00	15.75	8.40	56.00
2.15	19.50	1.10	68.00	42.00	16.00	8.60	58.00
2.20	20.00	1.10	70.00	43.00	16.50	8.80	60.00
2.25	20.25	1.15	71.00	44.00	16.75	9.00	61.00
2.30	20.75	1.15	73.00	45.00	17.25	9.20	63.00
2.35	21.25	1.20	74.00	46.00	17.50	9.40	64.00
2.40	21.75	1.20	76.00	47.00	18.00	9.60	66.00
2.45	22.25	1.25	77.00	48.00	18.25	9.80	67.00
2.50	22.50	1.25	79.00	49.00	18.75	10.00	69.00
2.55	23.00	1.30	81.00	50.00	19.00	10.20	71.00
2.60	23.50	1.30	82.00	51.00	19.25	10.40	72.00
2.65	24.00	1.35	84.00	52.00	19.75	10.60	74.00
2.70	24.50	1.35	85.00	53.00	20.00	10.80	75.00
2.75	24.75	1.40	87.00	54.00	20.50	11.00	77.00
2.80	25.25	1.40	88.00	55.00	20.75	11.20	78.00
2.85	25.75	1.45	90.00	56.00	21.25	11.40	80.00
2.90	26.25	1.45	92.00	57.00	21.50	11.60	82.00
2.95	26.75	1.50	93.00	58.00	22.00	11.80	83.00
3.00	27.00	1.50	95.00	59.00	22.25	12.00	85.00
3.05	27.50	1.55	96.00	60.00	22.75	12.20	86.00
3.10	28.00	1.55	98.00	61.00	23.00	12.40	88.00
3.15	28.50	1.60	100.00	62.00	23.50	12.60	90.00
3.20	29.00	1.60	101.00	63.00	23.75	12.80	91.00
3.25	29.50	1.65	103.00	64.00	24.25	13.00	93.00
3.30	29.75	1.65	104.00	65.00	24.50	13.20	94.00
3.35	30.25	1.70	106.00	66.00	25.00	13.40	96.00
3.40	30.75	1.70	107.00	67.00	25.25	13.60	97.00
3.45	31.25	1.75	109.00	68.00	25.75	13.80	99.00
3.50	31.75	1.75	111.00	69.00	26.00	14.00	101.00
3.55	32.00	1.80	112.00	70.00	26.50	14.20	102.00
3.60	32.50	1.80	114.00	71.00	26.75	14.40	104.00
3.65	33.00	1.85	115.00	72.00	27.25	14.60	105.00
3.70	33.50	1.85	117.00	73.00	27.50	14.80	107.00
3.75	34.00	1.90	119.00	74.00	28.00	15.00	109.00
3.80	34.25	1.90	120.00	74.00	28.25	15.20	110.00
3.85	34.75	1.95	122.00	75.00	28.75	15.40	112.00
3.90	35.25	1.95	123.00	76.00	29.00	15.60	113.00
3.95	35.75	2.00	125.00	77.00	29.50	15.80	115.00
4.00	36.25	2.00	126.00	78.00	29.75	16.00	116.00
4.05	36.50	2.05	128.00	79.00	30.25	16.20	118.00
4.10	37.00	2.05	130.00	80.00	30.50	16.40	120.00
4.15	37.50	2.10	131.00	81.00	31.00	16.60	121.00
4.20	38.00	2.10	133.00	82.00	31.25	16.80	123.00
4.25	38.50	2.15	134.00	83.00	31.75	17.00	124.00
4.30	38.75	2.15	136.00	84.00	32.00	17.20	126.00
4.35	39.25	2.20	137.00	85.00	32.50	17.40	127.00
4.40	39.75	2.20	139.00	86.00	32.75	17.60	129.00
4.45	40.25	2.25	141.00	87.00	33.25	17.80	131.00
4.50	40.75	2.25	142.00	88.00	33.50	18.00	132.00
4.55	41.25	2.30	144.00	89.00	34.00	18.20	134.00
4.60	41.50	2.30	145.00	90.00	34.25	18.40	135.00
4.65	42.00	2.35	147.00	91.00	34.75	18.60	137.00
4.70	42.50	2.35	149.00	92.00	35.00	18.80	139.00
4.75	43.00	2.40	150.00	93.00	35.50	19.00	140.00
4.80	43.50	2.40	152.00	94.00	35.75	19.20	142.00
4.85	43.75	2.45	153.00	95.00	36.25	19.40	143.00
4.90	44.25	2.45	155.00	96.00	36.50	19.60	145.00
4.95	44.75	2.50	156.00	97.00	37.00	19.80	146.00
5.00	45.25	2.50	158.00	98.00	37.25	20.00	148.00
5.05	45.75	2.55	160.00	99.00	37.50	20.20	150.00
5.10	46.00	2.55	161.00	100.00	38.00	20.40	151.00
5.15	46.50	2.60	163.00	101.00	38.25	20.60	153.00
5.20	47.00	2.60	164.00	102.00	38.75	20.80	154.00
5.25	47.50	2.65	166.00	103.00	39.00	21.00	156.00
5.30	48.00	2.65	167.00	104.00	39.50	21.20	157.00
5.35	48.25	2.70	169.00	105.00	39.75	21.40	159.00
5.40	48.75	2.70	171.00	106.00	40.25	21.60	161.00
5.45	49.25	2.75	172.00	107.00	40.50	21.80	162.00
5.50	49.75	2.75	174.00	108.00	41.00	22.00	164.00
5.55	50.25	2.80	175.00	109.00	41.25	22.20	165.00
5.60	50.50	2.80	177.00	110.00	41.75	22.40	167.00

Fare Conversion Table

SINGLE	TENS	HALF	ADULT	STUDENT	S-TENS	GROUP	TWIN
5.65	51.00	2.85	179.00	111.00	42.00	22.60	169.00
5.70	51.50	2.85	180.00	112.00	42.50	22.80	170.00
5.75	52.00	2.90	182.00	113.00	42.75	23.00	172.00
5.80	52.50	2.90	183.00	114.00	43.25	23.20	173.00
5.85	53.00	2.95	185.00	115.00	43.50	23.40	175.00
5.90	53.25	2.95	186.00	116.00	44.00	23.60	176.00
5.95	53.75	3.00	188.00	117.00	44.25	23.80	178.00
6.00	54.25	3.00	190.00	118.00	44.75	24.00	180.00
6.05	54.75	3.05	191.00	119.00	45.00	24.20	181.00
6.10	55.25	3.05	193.00	120.00	45.50	24.40	183.00
6.15	55.50	3.10	194.00	121.00	45.75	24.60	184.00
6.20	56.00	3.10	196.00	122.00	46.25	24.80	186.00
6.25	56.50	3.15	198.00	123.00	46.50	25.00	188.00
6.30	57.00	3.15	199.00	123.00	47.00	25.20	189.00
6.35	57.50	3.20	201.00	124.00	47.25	25.40	191.00
6.40	57.75	3.20	202.00	125.00	47.75	25.60	192.00
6.45	58.25	3.25	204.00	126.00	48.00	25.80	194.00
6.50	58.75	3.25	205.00	127.00	48.50	26.00	195.00
6.55	59.25	3.30	207.00	128.00	48.75	26.20	197.00
6.60	59.75	3.30	209.00	129.00	49.25	26.40	199.00
6.65	60.00	3.35	210.00	130.00	49.50	26.60	200.00
6.70	60.50	3.35	212.00	131.00	50.00	26.80	202.00
6.75	61.00	3.40	213.00	132.00	50.25	27.00	203.00
6.80	61.50	3.40	215.00	133.00	50.75	27.20	205.00
6.85	62.00	3.45	216.00	134.00	51.00	27.40	206.00
6.90	62.50	3.45	218.00	135.00	51.50	27.60	208.00
6.95	62.75	3.50	220.00	136.00	51.75	27.80	210.00
7.00	63.25	3.50	221.00	137.00	52.25	28.00	211.00
7.05	63.75	3.55	223.00	138.00	52.50	28.20	213.00
7.10	64.25	3.55	224.00	139.00	53.00	28.40	214.00
7.15	64.75	3.60	226.00	140.00	53.25	28.60	216.00
7.20	65.00	3.60	228.00	141.00	53.75	28.80	218.00
7.25	65.50	3.65	229.00	142.00	54.00	29.00	219.00
7.30	66.00	3.65	231.00	143.00	54.50	29.20	221.00
7.35	66.50	3.70	232.00	144.00	54.75	29.40	222.00
7.40	67.00	3.70	234.00	145.00	55.25	29.60	224.00
7.45	67.25	3.75	235.00	146.00	55.50	29.80	225.00
7.50	67.75	3.75	237.00	147.00	56.00	30.00	227.00
7.55	68.25	3.80	239.00	148.00	56.25	30.20	229.00
7.60	68.75	3.80	240.00	149.00	56.50	30.40	230.00
7.65	69.25	3.85	242.00	150.00	57.00	30.60	232.00
7.70	69.50	3.85	243.00	151.00	57.25	30.80	233.00
7.75	70.00	3.90	245.00	152.00	57.75	31.00	235.00
7.80	70.50	3.90	246.00	153.00	58.00	31.20	236.00
7.85	71.00	3.95	248.00	154.00	58.50	31.40	238.00
7.90	71.50	3.95	250.00	155.00	58.75	31.60	240.00
7.95	71.75	4.00	251.00	156.00	59.25	31.80	241.00
8.00	72.25	4.00	253.00	157.00	59.50	32.00	243.00
8.05	72.75	4.05	254.00	158.00	60.00	32.20	244.00
8.10	73.25	4.05	256.00	159.00	60.25	32.40	246.00
8.15	73.75	4.10	258.00	160.00	60.75	32.60	248.00
8.20	74.25	4.10	259.00	161.00	61.00	32.80	249.00
8.25	74.50	4.15	261.00	162.00	61.50	33.00	251.00
8.30	75.00	4.15	262.00	163.00	61.75	33.20	252.00
8.35	75.50	4.20	264.00	164.00	62.25	33.40	254.00
8.40	76.00	4.20	265.00	165.00	62.50	33.60	255.00
8.45	76.50	4.25	267.00	166.00	63.00	33.80	257.00
8.50	76.75	4.25	269.00	167.00	63.25	34.00	259.00
8.55	77.25	4.30	270.00	168.00	63.75	34.20	260.00
8.60	77.75	4.30	272.00	169.00	64.00	34.40	262.00
8.65	78.25	4.35	273.00	170.00	64.50	34.60	263.00
8.70	78.75	4.35	275.00	171.00	64.75	34.80	265.00
8.75	79.00	4.40	277.00	172.00	65.25	35.00	267.00
8.80	79.50	4.40	278.00	172.00	65.50	35.20	268.00
8.85	80.00	4.45	280.00	173.00	66.00	35.40	270.00
8.90	80.50	4.45	281.00	174.00	66.25	35.60	271.00
8.95	81.00	4.50	283.00	175.00	66.75	35.80	273.00
9.00	81.25	4.50	284.00	176.00	67.00	36.00	274.00
9.05	81.75	4.55	286.00	177.00	67.50	36.20	276.00
9.10	82.25	4.55	288.00	178.			

Fare Conversion Table

SINGLE	TENS	HALF	ADULT	STUDENT	S-TENS	GROUP	TWIN
9.20	83.25	4.60	291.00	180.00	68.50	36.80	281.00
9.25	83.50	4.65	292.00	181.00	69.00	37.00	282.00
9.30	84.00	4.65	294.00	182.00	69.25	37.20	284.00
9.35	84.50	4.70	295.00	183.00	69.75	37.40	285.00
9.40	85.00	4.70	297.00	184.00	70.00	37.60	287.00
9.45	85.50	4.75	299.00	185.00	70.50	37.80	289.00
9.50	86.00	4.75	300.00	186.00	70.75	38.00	290.00
9.55	86.25	4.80	302.00	187.00	71.25	38.20	292.00
9.60	86.75	4.80	303.00	188.00	71.50	38.40	293.00
9.65	87.25	4.85	305.00	189.00	72.00	38.60	295.00
9.70	87.75	4.85	307.00	190.00	72.25	38.80	297.00
9.75	88.25	4.90	308.00	191.00	72.75	39.00	298.00
9.80	88.50	4.90	310.00	192.00	73.00	39.20	300.00
9.85	89.00	4.95	311.00	193.00	73.50	39.40	301.00
9.90	89.50	4.95	313.00	194.00	73.75	39.60	303.00
9.95	90.00	5.00	314.00	195.00	74.25	39.80	304.00
10.00	90.50	5.00	316.00	196.00	74.50	40.00	306.00
10.05	90.75	5.05	318.00	197.00	74.75	40.20	308.00
10.10	91.25	5.05	319.00	198.00	75.25	40.40	309.00
10.15	91.75	5.10	321.00	199.00	75.50	40.60	311.00
10.20	92.25	5.10	322.00	200.00	76.00	40.80	312.00
10.25	92.75	5.15	324.00	201.00	76.25	41.00	314.00
10.30	93.00	5.15	325.00	202.00	76.75	41.20	315.00
10.35	93.50	5.20	327.00	203.00	77.00	41.40	317.00
10.40	94.00	5.20	329.00	204.00	77.50	41.60	319.00
10.45	94.50	5.25	330.00	205.00	77.75	41.80	320.00
10.50	95.00	5.25	332.00	206.00	78.25	42.00	322.00
10.55	95.25	5.30	333.00	207.00	78.50	42.20	323.00
10.60	95.75	5.30	335.00	208.00	79.00	42.40	325.00
10.65	96.25	5.35	337.00	209.00	79.25	42.60	327.00
10.70	96.75	5.35	338.00	210.00	79.75	42.80	328.00
10.75	97.25	5.40	340.00	211.00	80.00	43.00	330.00
10.80	97.75	5.40	341.00	212.00	80.50	43.20	331.00
10.85	98.00	5.45	343.00	213.00	80.75	43.40	333.00
10.90	98.50	5.45	344.00	214.00	81.25	43.60	334.00
10.95	99.00	5.50	346.00	215.00	81.50	43.80	336.00
11.00	99.50	5.50	348.00	216.00	82.00	44.00	338.00
11.05	100.00	5.55	349.00	217.00	82.25	44.20	339.00
11.10	100.25	5.55	351.00	218.00	82.75	44.40	341.00
11.15	100.75	5.60	352.00	219.00	83.00	44.60	342.00
11.20	101.25	5.60	354.00	220.00	83.50	44.80	344.00
11.25	101.75	5.65	356.00	221.00	83.75	45.00	346.00
11.30	102.25	5.65	357.00	221.00	84.25	45.20	347.00
11.35	102.50	5.70	359.00	222.00	84.50	45.40	349.00
11.40	103.00	5.70	360.00	223.00	85.00	45.60	350.00
11.45	103.50	5.75	362.00	224.00	85.25	45.80	352.00
11.50	104.00	5.75	363.00	225.00	85.75	46.00	353.00
11.55	104.50	5.80	365.00	226.00	86.00	46.20	355.00
11.60	104.75	5.80	367.00	227.00	86.50	46.40	357.00
11.65	105.25	5.85	368.00	228.00	86.75	46.60	358.00
11.70	105.75	5.85	370.00	229.00	87.25	46.80	360.00
11.75	106.25	5.90	371.00	230.00	87.50	47.00	361.00
11.80	106.75	5.90	373.00	231.00	88.00	47.20	363.00
11.85	107.00	5.95	374.00	232.00	88.25	47.40	364.00
11.90	107.50	5.95	376.00	233.00	88.75	47.60	366.00
11.95	108.00	6.00	378.00	234.00	89.00	47.80	368.00
12.00	108.50	6.00	379.00	235.00	89.50	48.00	369.00
12.05	109.00	6.05	381.00	236.00	89.75	48.20	371.00
12.10	109.50	6.05	382.00	237.00	90.25	48.40	372.00
12.15	109.75	6.10	384.00	238.00	90.50	48.60	374.00
12.20	110.25	6.10	386.00	239.00	91.00	48.80	376.00
12.25	110.75	6.15	387.00	240.00	91.25	49.00	377.00
12.30	111.25	6.15	389.00	241.00	91.75	49.20	379.00
12.35	111.75	6.20	390.00	242.00	92.00	49.40	380.00
12.40	112.00	6.20	392.00	243.00	92.50	49.60	382.00
12.45	112.50	6.25	393.00	244.00	92.75	49.80	383.00
12.50	113.00	6.25	395.00	245.00	93.25	50.00	385.00
12.55	113.50	6.30	397.00	246.00	93.50	50.20	387.00
12.60	114.00	6.30	398.00	247.00	93.75	50.40	388.00
12.65	114.25	6.35	400.00	248.00	94.25	50.60	390.00
12.70	114.75	6.35	401.00	249.00	94.50	50.80	391.00

Fare Conversion Table

SINGLE	TENS	HALF	ADULT	STUDENT	S-TENS	GROUP	TWIN
12.75	115.25	6.40	403.00	250.00	95.00	51.00	393.00
12.80	115.75	6.40	404.00	251.00	95.25	51.20	394.00
12.85	116.25	6.45	406.00	252.00	95.75	51.40	396.00
12.90	116.50	6.45	408.00	253.00	96.00	51.60	398.00
12.95	117.00	6.50	409.00	254.00	96.50	51.80	399.00
13.00	117.50	6.50	411.00	255.00	96.75	52.00	401.00
13.05	118.00	6.55	412.00	256.00	97.25	52.20	402.00
13.10	118.50	6.55	414.00	257.00	97.50	52.40	404.00
13.15	119.00	6.60	416.00	258.00	98.00	52.60	406.00
13.20	119.25	6.60	417.00	259.00	98.25	52.80	407.00
13.25	119.75	6.65	419.00	260.00	98.75	53.00	409.00
13.30	120.25	6.65	420.00	261.00	99.00	53.20	410.00
13.35	120.75	6.70	422.00	262.00	99.50	53.40	412.00
13.40	121.25	6.70	423.00	263.00	99.75	53.60	413.00
13.45	121.50	6.75	425.00	264.00	100.25	53.80	415.00
13.50	122.00	6.75	427.00	265.00	100.50	54.00	417.00
13.55	122.50	6.80	428.00	266.00	101.00	54.20	418.00
13.60	123.00	6.80	430.00	267.00	101.25	54.40	420.00
13.65	123.50	6.85	431.00	268.00	101.75	54.60	421.00
13.70	123.75	6.85	433.00	269.00	102.00	54.80	423.00
13.75	124.25	6.90	435.00	270.00	102.50	55.00	425.00
13.80	124.75	6.90	436.00	270.00	102.75	55.20	426.00
13.85	125.25	6.95	438.00	271.00	103.25	55.40	428.00
13.90	125.75	6.95	439.00	272.00	103.50	55.60	429.00
13.95	126.00	7.00	441.00	273.00	104.00	55.80	431.00
14.00	126.50	7.00	442.00	274.00	104.25	56.00	432.00
14.05	127.00	7.05	444.00	275.00	104.75	56.20	434.00
14.10	127.50	7.05	446.00	276.00	105.00	56.40	436.00
14.15	128.00	7.10	447.00	277.00	105.50	56.60	437.00
14.20	128.25	7.10	449.00	278.00	105.75	56.80	439.00
14.25	128.75	7.15	450.00	279.00	106.25	57.00	440.00
14.30	129.25	7.15	452.00	280.00	106.50	57.20	442.00
14.35	129.75	7.20	453.00	281.00	107.00	57.40	443.00
14.40	130.25	7.20	455.00	282.00	107.25	57.60	445.00
14.45	130.75	7.25	457.00	283.00	107.75	57.80	447.00
14.50	131.00	7.25	458.00	284.00	108.00	58.00	448.00
14.55	131.50	7.30	460.00	285.00	108.50	58.20	450.00
14.60	132.00	7.30	461.00	286.00	108.75	58.40	451.00
14.65	132.50	7.35	463.00	287.00	109.25	58.60	453.00
14.70	133.00	7.35	465.00	288.00	109.50	58.80	455.00
14.75	133.25	7.40	466.00	289.00	110.00	59.00	456.00
14.80	133.75	7.40	468.00	290.00	110.25	59.20	458.00
14.85	134.25	7.45	469.00	291.00	110.75	59.40	459.00
14.90	134.75	7.45	471.00	292.00	111.00	59.60	461.00
14.95	135.25	7.50	472.00	293.00	111.50	59.80	462.00
15.00	135.50	7.50	474.00	294.00	111.75	60.00	464.00
15.05	136.00	7.55	476.00	295.00	112.00	60.20	466.00
15.10	136.50	7.55	477.00	296.00	112.50	60.40	467.00
15.15	137.00	7.60	479.00	297.00	112.75	60.60	469.00
15.20	137.50	7.60	480.00	298.00	113.25	60.80	470.00
15.25	137.75	7.65	482.00	299.00	113.50	61.00	472.00
15.30	138.25	7.65	483.00	300.00	114.00	61.20	473.00
15.35	138.75	7.70	485.00	301.00	114.25	61.40	475.00
15.40	139.25	7.70	487.00	302.00	114.75	61.60	477.00
15.45	139.75	7.75	488.00	303.00	115.00	61.80	478.00
15.50	140.00	7.75	490.00	304.00	115.50	62.00	480.00
15.55	140.50	7.80	491.00	305.00	115.75	62.20	481.00
15.60	141.00	7.80	493.00	306.00	116.25	62.40	483.00
15.65	141.50	7.85	495.00	307.00	116.50	62.60	485.00
15.70	142.00	7.85	496.00	308.00	117.00	62.80	486.00
15.75	142.50	7.90	498.00	309.00	117.25	63.00	488.00
15.80	142.75	7.90	499.00	310.00	117.75	63.20	489.00
15.85	143.25	7.95	501.00	311.00	118.00	63.40	491.00
15.90	143.75	7.95	502.00	312.00	118.50	63.60	492.00
15.95	144.25	8.00	504.00	313.00	118.75	63.80	494.00

Fare Conversion Table

SINGLE	TENS	HALF	ADULT	STUDENT	S-TENS	GROUP	TWIN
16.30	147.25	8.15	515.00	319.00	121.50	65.20	505.00
16.35	147.75	8.20	517.00	320.00	121.75	65.40	507.00
16.40	148.25	8.20	518.00	321.00	122.25	65.60	508.00
16.45	148.75	8.25	520.00	322.00	122.50	65.80	510.00
16.50	149.25	8.25	521.00	323.00	123.00	66.00	511.00
16.55	149.50	8.30	523.00	324.00	123.25	66.20	513.00
16.60	150.00	8.30	525.00	325.00	123.75	66.40	515.00
16.65	150.50	8.35	526.00	326.00	124.00	66.60	516.00
16.70	151.00	8.35	528.00	327.00	124.50	66.80	518.00
16.75	151.50	8.40	529.00	328.00	124.75	67.00	519.00
16.80	151.75	8.40	531.00	329.00	125.25	67.20	521.00
16.85	152.25	8.45	532.00	330.00	125.50	67.40	522.00
16.90	152.75	8.45	534.00	331.00	126.00	67.60	524.00
16.95	153.25	8.50	536.00	332.00	126.25	67.80	526.00
17.00	153.75	8.50	537.00	333.00	126.75	68.00	527.00
17.05	154.25	8.55	539.00	334.00	127.00	68.20	529.00
17.10	154.50	8.55	540.00	335.00	127.50	68.40	530.00
17.15	155.00	8.60	542.00	336.00	127.75	68.60	532.00
17.20	155.50	8.60	544.00	337.00	128.25	68.80	534.00
17.25	156.00	8.65	545.00	338.00	128.50	69.00	535.00
17.30	156.50	8.65	547.00	339.00	129.00	69.20	537.00
17.35	156.75	8.70	548.00	340.00	129.25	69.40	538.00
17.40	157.25	8.70	550.00	341.00	129.75	69.60	540.00
17.45	157.75	8.75	551.00	342.00	130.00	69.80	541.00
17.50	158.25	8.75	553.00	343.00	130.50	70.00	543.00
17.55	158.75	8.80	555.00	344.00	130.75	70.20	545.00
17.60	159.00	8.80	556.00	345.00	131.00	70.40	546.00
17.65	159.50	8.85	558.00	346.00	131.50	70.60	548.00
17.70	160.00	8.85	559.00	347.00	131.75	70.80	549.00
17.75	160.50	8.90	561.00	348.00	132.25	71.00	551.00
17.80	161.00	8.90	562.00	349.00	132.50	71.20	552.00
17.85	161.25	8.95	564.00	350.00	133.00	71.40	554.00
17.90	161.75	8.95	566.00	351.00	133.25	71.60	556.00
17.95	162.25	9.00	567.00	352.00	133.75	71.80	557.00
18.00	162.75	9.00	569.00	353.00	134.00	72.00	559.00
18.05	163.25	9.05	570.00	354.00	134.50	72.20	560.00
18.10	163.50	9.05	572.00	355.00	134.75	72.40	562.00
18.15	164.00	9.10	574.00	356.00	135.25	72.60	564.00
18.20	164.50	9.10	575.00	357.00	135.50	72.80	565.00

Fare Conversion Table

SINGLE	TENS	HALF	ADULT	STUDENT	S-TENS	GROUP	TWIN
18.25	165.00	9.15	577.00	358.00	136.00	73.00	567.00
18.30	165.50	9.15	578.00	359.00	136.25	73.20	568.00
18.35	166.00	9.20	580.00	360.00	136.75	73.40	570.00
18.40	166.25	9.20	581.00	361.00	137.00	73.60	571.00
18.45	166.75	9.25	583.00	362.00	137.50	73.80	573.00
18.50	167.25	9.25	585.00	363.00	137.75	74.00	575.00
18.55	167.75	9.30	586.00	364.00	138.25	74.20	576.00
18.60	168.25	9.30	588.00	365.00	138.50	74.40	578.00
18.65	168.50	9.35	589.00	366.00	139.00	74.60	579.00
18.70	169.00	9.35	591.00	367.00	139.25	74.80	581.00
18.75	169.50	9.40	593.00	368.00	139.75	75.00	583.00
18.80	170.00	9.40	594.00	368.00	140.00	75.20	584.00
18.85	170.50	9.45	596.00	369.00	140.50	75.40	586.00
18.90	170.75	9.45	597.00	370.00	140.75	75.60	587.00
18.95	171.25	9.50	599.00	371.00	141.25	75.80	589.00
19.00	171.75	9.50	600.00	372.00	141.50	76.00	590.00
19.05	172.25	9.55	602.00	373.00	142.00	76.20	592.00
19.10	172.75	9.55	604.00	374.00	142.25	76.40	594.00
19.15	173.00	9.60	605.00	375.00	142.75	76.60	595.00
19.20	173.50	9.60	607.00	376.00	143.00	76.80	597.00
19.25	174.00	9.65	608.00	377.00	143.50	77.00	598.00
19.30	174.50	9.65	610.00	378.00	143.75	77.20	600.00
19.35	175.00	9.70	611.00	379.00	144.25	77.40	601.00
19.40	175.50	9.70	613.00	380.00	144.50	77.60	603.00
19.45	175.75	9.75	615.00	381.00	145.00	77.80	605.00
19.50	176.25	9.75	616.00	382.00	145.25	78.00	606.00
19.55	176.75	9.80	618.00	383.00	145.75	78.20	608.00
19.60	177.25	9.80	619.00	384.00	146.00	78.40	609.00
19.65	177.75	9.85	621.00	385.00	146.50	78.60	611.00
19.70	178.00	9.85	623.00	386.00	146.75	78.80	613.00
19.75	178.50	9.90	624.00	387.00	147.25	79.00	614.00
19.80	179.00	9.90	626.00	388.00	147.50	79.20	616.00
19.85	179.50	9.95	627.00	389.00	148.00	79.40	617.00
19.90	180.00	9.95	629.00	390.00	148.25	79.60	619.00
19.95	180.25	10.00	630.00	391.00	148.75	79.80	620.00
20.00	180.75	10.00	632.00	392.00	149.00	80.00	622.00

O. Reg. 110/91, s. 4.

5. The Schedule to the Regulation, as remade by section 1 of Ontario Regulation 285/90, is revoked and the following substituted:

Schedule

SCHEDULE OF AMOUNTS BETWEEN ZONES

ZONE	AND	ZONE	FARE
2 Toronto	2	Toronto	1.68
2 Toronto	3	Etobicoke South	1.78
2 Toronto	4	Metro Northwest	1.78
2 Toronto	5	Metro North	1.78
2 Toronto	6	Scarboro South	1.78
2 Toronto	7	Scarboro North	2.43
2 Toronto	8	Scarboro East	2.34
2 Toronto	11	Port Credit/Cooksville	2.34
2 Toronto	12	Clarkson/Erindale	2.94
2 Toronto	13	Oakville	3.55
2 Toronto	14	Oakville West/Bronte	4.11
2 Toronto	15	Burlington	4.81
2 Toronto	16	Aldershot	5.51
2 Toronto	18	Hamilton	5.89
2 Toronto	21	Streetsville	3.79
2 Toronto	22	Meadowvale	3.83
2 Toronto	24	Milton	4.86
2 Toronto	31	Malton	2.80
2 Toronto	32	Bramalea	3.41
2 Toronto	33	Brampton	3.88
2 Toronto	34	Huttonville	4.49
2 Toronto	35	Georgetown	5.09

SCHEDULE OF AMOUNTS BETWEEN ZONES

	<u>ZONE</u>	<u>AND</u>	<u>ZONE</u>	<u>FARE</u>
2	Toronto	36	Silvercreek	5.75
2	Toronto	37	Acton	6.21
2	Toronto	38	Rockwood	7.06
2	Toronto	39	Guelph	7.57
2	Toronto	61	Richmond Hill/Maple	2.62
2	Toronto	62	Oak Ridges/King	3.22
2	Toronto	63	Aurora	3.74
2	Toronto	64	Newmarket	4.07
2	Toronto	65	Bradford/Queensville	4.86
2	Toronto	66	Deerhurst/Keswick	5.79
2	Toronto	67	Churchill/Island Grove	6.26
2	Toronto	68	Stroud/Sutton	6.92
2	Toronto	69	Barrie	7.34
2	Toronto	70	Milliken	3.13
2	Toronto	71	Markham	3.18
2	Toronto	72	Wideman	3.60
2	Toronto	73	Stouffville	4.35
2	Toronto	74	Goodwood	5.05
2	Toronto	75	Uxbridge	5.51
2	Toronto	91	Pickering	3.18
2	Toronto	92	Ajax	3.64
2	Toronto	93	Whitby	4.21
2	Toronto	94	Oshawa	4.72
2	Toronto	95	Courtice	5.19
2	Toronto	96	Bowmanville	5.56
3	Etobicoke South	3	Etobicoke South	1.68
3	Etobicoke South	4	Metro Northwest	1.68
3	Etobicoke South	5	Metro North	2.20
3	Etobicoke South	6	Scarboro South	3.08
3	Etobicoke South	7	Scarboro North	3.08
3	Etobicoke South	8	Scarboro East	3.74
3	Etobicoke South	11	Port Credit/Cooksville	1.73
3	Etobicoke South	12	Clarkson/Erindale	2.29
3	Etobicoke South	13	Oakville	2.90
3	Etobicoke South	14	Oakville West/Bronte	3.46
3	Etobicoke South	15	Burlington	4.16
3	Etobicoke South	16	Aldershot	4.86
3	Etobicoke South	18	Hamilton	5.19
3	Etobicoke South	21	Streetsville	2.71
3	Etobicoke South	22	Meadowvale	2.76
3	Etobicoke South	24	Milton	4.25
3	Etobicoke South	31	Malton	2.10
3	Etobicoke South	32	Bramalea	2.80
3	Etobicoke South	33	Brampton	3.18
3	Etobicoke South	35	Georgetown	4.44
3	Etobicoke South	36	Silvercreek	5.09
3	Etobicoke South	37	Acton	5.56
3	Etobicoke South	38	Rockwood	6.36
3	Etobicoke South	39	Guelph	6.92
3	Etobicoke South	61	Richmond Hill/Maple	3.22
3	Etobicoke South	62	Oak Ridges/King	3.83
3	Etobicoke South	63	Aurora	4.35
3	Etobicoke South	64	Newmarket	4.72
3	Etobicoke South	65	Bradford/Queensville	5.47
3	Etobicoke South	66	Deerhurst/Keswick	6.45
3	Etobicoke South	67	Churchill/Island Grove	6.87
3	Etobicoke South	68	Stroud/Sutton	7.52
3	Etobicoke South	69	Barrie	7.94
3	Etobicoke South	70	Milliken	3.97
3	Etobicoke South	71	Markham	4.02
3	Etobicoke South	72	Wideman	4.07
3	Etobicoke South	73	Stouffville	5.23
3	Etobicoke South	74	Goodwood	6.31
3	Etobicoke South	75	Uxbridge	6.78
3	Etobicoke South	91	Pickering	4.44
3	Etobicoke South	92	Ajax	4.91
3	Etobicoke South	93	Whitby	5.47
3	Etobicoke South	94	Oshawa	5.98
3	Etobicoke South	95	Courtice	6.45
3	Etobicoke South	96	Bowmanville	6.82
4	Metro Northwest	4	Metro Northwest	1.68

SCHEDULE OF AMOUNTS BETWEEN ZONES

<u>ZONE</u>	<u>AND</u>	<u>ZONE</u>	<u>FARE</u>	
4	Metro Northwest	5	Metro North	1.78
4	Metro Northwest	6	Scarboro South	3.22
4	Metro Northwest	7	Scarboro North	2.43
4	Metro Northwest	8	Scarboro East	3.22
4	Metro Northwest	11	Port Credit/Cooksville	2.10
4	Metro Northwest	12	Clarkson/Erindale	2.66
4	Metro Northwest	13	Oakville	3.22
4	Metro Northwest	14	Oakville West/Bronte	3.83
4	Metro Northwest	15	Burlington	4.53
4	Metro Northwest	16	Aldershot	5.23
4	Metro Northwest	18	Hamilton	5.56
4	Metro Northwest	21	Streetsville	2.66
4	Metro Northwest	22	Meadowvale	2.71
4	Metro Northwest	24	Milton	3.79
4	Metro Northwest	31	Malton	1.78
4	Metro Northwest	32	Bramalea	2.34
4	Metro Northwest	33	Brampton	2.80
4	Metro Northwest	34	Huttonville	3.46
4	Metro Northwest	35	Georgetown	4.07
4	Metro Northwest	36	Silvercreek	4.72
4	Metro Northwest	37	Acton	5.23
4	Metro Northwest	38	Rockwood	6.03
4	Metro Northwest	39	Guelph	6.54
4	Metro Northwest	52	Kleinburg	4.72
4	Metro Northwest	53	Nobleton	5.28
4	Metro Northwest	54	Bolton	5.75
4	Metro Northwest	55	Palgrave	6.26
4	Metro Northwest	61	Richmond Hill/Maple	2.62
4	Metro Northwest	62	Oak Ridges/King	3.22
4	Metro Northwest	63	Aurora	3.74
4	Metro Northwest	64	Newmarket	4.07
4	Metro Northwest	65	Bradford/Queensville	4.86
4	Metro Northwest	66	Deerhurst/Keswick	5.79
4	Metro Northwest	67	Churchill/Island Grove	6.26
4	Metro Northwest	68	Stroud/Sutton	6.92
4	Metro Northwest	69	Barrie	7.34
4	Metro Northwest	70	Milliken	3.41
4	Metro Northwest	71	Markham	3.46
4	Metro Northwest	72	Wideman	3.83
4	Metro Northwest	73	Stouffville	4.63
4	Metro Northwest	74	Goodwood	5.70
4	Metro Northwest	75	Uxbridge	6.17
4	Metro Northwest	91	Pickering	3.83
4	Metro Northwest	92	Ajax	4.30
4	Metro Northwest	93	Whitby	4.86
4	Metro Northwest	94	Oshawa	5.37
4	Metro Northwest	95	Courtice	5.84
4	Metro Northwest	96	Bowmanville	6.21
5	Metro North	5	Metro North	1.68
5	Metro North	6	Scarboro South	2.34
5	Metro North	7	Scarboro North	1.68
5	Metro North	8	Scarboro East	2.34
5	Metro North	11	Port Credit/Cooksville	2.85
5	Metro North	12	Clarkson/Erindale	3.55
5	Metro North	13	Oakville	4.02
5	Metro North	14	Oakville West/Bronte	4.72
5	Metro North	15	Burlington	5.42
5	Metro North	16	Aldershot	5.61
5	Metro North	18	Hamilton	6.03
5	Metro North	21	Streetsville	2.90
5	Metro North	22	Meadowvale	2.94
5	Metro North	24	Milton	4.67
5	Metro North	31	Malton	2.01
5	Metro North	32	Bramalea	2.76
5	Metro North	33	Brampton	3.50
5	Metro North	34	Huttonville	4.39
5	Metro North	35	Georgetown	5.05
5	Metro North	36	Silvercreek	5.70
5	Metro North	37	Acton	6.17
5	Metro North	38	Rockwood	6.96
5	Metro North	39	Guelph	7.48

SCHEDULE OF AMOUNTS BETWEEN ZONES

<u>ZONE</u>	<u>AND</u>	<u>ZONE</u>	<u>FARE</u>	
5	Metro North	40	Canada's Wonderland	2.80
5	Metro North	52	Kleinburg	3.41
5	Metro North	53	Nobleton	3.88
5	Metro North	54	Bolton	4.39
5	Metro North	55	Palgrave	4.86
5	Metro North	56	Schomberg	1.73
5	Metro North	61	Richmond Hill/Maple	1.78
5	Metro North	62	Oak Ridges/King	2.34
5	Metro North	63	Aurora	2.85
5	Metro North	64	Newmarket	3.22
5	Metro North	65	Bradford/Queensville	4.02
5	Metro North	66	Deerhurst/Keswick	4.95
5	Metro North	67	Churchill/Island Grove	5.42
5	Metro North	68	Stroud/Sutton	6.07
5	Metro North	69	Barrie	6.45
5	Metro North	70	Milliken	2.34
5	Metro North	71	Markham	2.34
5	Metro North	72	Wideman	2.94
5	Metro North	73	Stouffville	3.74
5	Metro North	74	Goodwood	4.86
5	Metro North	75	Uxbridge	5.33
5	Metro North	91	Pickering	2.99
5	Metro North	92	Ajax	3.46
5	Metro North	93	Whitby	4.02
5	Metro North	94	Oshawa	4.53
5	Metro North	95	Courtice	5.00
5	Metro North	96	Bowmanville	5.37
6	Scarboro South	6	Scarboro South	1.68
6	Scarboro South	7	Scarboro North	1.78
6	Scarboro South	8	Scarboro East	1.87
6	Scarboro South	11	Port Credit/Cooksville	3.69
6	Scarboro South	12	Clarkson/Erindale	4.25
6	Scarboro South	13	Oakville	4.86
6	Scarboro South	14	Oakville West/Bronte	5.42
6	Scarboro South	15	Burlington	6.12
6	Scarboro South	16	Aldershot	6.82
6	Scarboro South	18	Hamilton	7.15
6	Scarboro South	21	Streetsville	5.09
6	Scarboro South	22	Meadowvale	5.14
6	Scarboro South	24	Milton	6.21
6	Scarboro South	31	Malton	3.83
6	Scarboro South	32	Bramalea	4.49
6	Scarboro South	33	Brampton	4.91
6	Scarboro South	35	Georgetown	6.12
6	Scarboro South	36	Silvercreek	6.78
6	Scarboro South	37	Acton	7.24
6	Scarboro South	38	Rockwood	8.08
6	Scarboro South	39	Guelph	8.60
6	Scarboro South	61	Richmond Hill/Maple	3.22
6	Scarboro South	62	Oak Ridges/King	3.88
6	Scarboro South	63	Aurora	4.35
6	Scarboro South	64	Newmarket	4.72
6	Scarboro South	65	Bradford/Queensville	5.51
6	Scarboro South	66	Deerhurst/Keswick	6.45
6	Scarboro South	67	Churchill/Island Grove	6.87
6	Scarboro South	68	Stroud/Sutton	7.57
6	Scarboro South	69	Barrie	7.94
6	Scarboro South	70	Milliken	2.34
6	Scarboro South	71	Markham	2.34
6	Scarboro South	72	Wideman	2.94
6	Scarboro South	73	Stouffville	3.69
6	Scarboro South	74	Goodwood	4.39
6	Scarboro South	75	Uxbridge	4.86
6	Scarboro South	91	Pickering	2.52
6	Scarboro South	92	Ajax	2.99
6	Scarboro South	93	Whitby	3.55
6	Scarboro South	94	Oshawa	4.07
6	Scarboro South	95	Courtice	4.49
6	Scarboro South	96	Bowmanville	4.91
7	Scarboro North	8	Scarboro East	1.82
7	Scarboro North	11	Port Credit/Cooksville	3.69

SCHEDULE OF AMOUNTS BETWEEN ZONES

<u>ZONE</u>	<u>AND</u>	<u>ZONE</u>	<u>FARE</u>	
7	Scarboro North	12	Clarkson/Erindale	4.25
7	Scarboro North	13	Oakville	4.86
7	Scarboro North	14	Oakville West/Bronte	5.42
7	Scarboro North	15	Burlington	6.12
7	Scarboro North	16	Aldershot	6.82
7	Scarboro North	18	Hamilton	7.15
7	Scarboro North	21	Streetsville	4.30
7	Scarboro North	22	Meadowvale	4.35
7	Scarboro North	24	Milton	5.37
7	Scarboro North	31	Malton	3.36
7	Scarboro North	32	Bramalea	4.02
7	Scarboro North	33	Brampton	4.44
7	Scarboro North	34	Huttonville	5.05
7	Scarboro North	35	Georgetown	5.70
7	Scarboro North	36	Silvercreek	6.31
7	Scarboro North	37	Acton	6.82
7	Scarboro North	38	Rockwood	7.62
7	Scarboro North	39	Guelph	8.13
7	Scarboro North	52	Kleinburg	4.53
7	Scarboro North	53	Nobleton	5.09
7	Scarboro North	54	Bolton	5.56
7	Scarboro North	55	Palgrave	6.07
7	Scarboro North	61	Richmond Hill/Maple	2.38
7	Scarboro North	62	Oak Ridges/King	3.04
7	Scarboro North	63	Aurora	3.50
7	Scarboro North	64	Newmarket	3.88
7	Scarboro North	65	Bradford/Queensville	4.67
7	Scarboro North	66	Deerhurst/Keswick	5.61
7	Scarboro North	67	Churchill/Island Grove	6.03
7	Scarboro North	68	Stroud/Sutton	6.73
7	Scarboro North	69	Barrie	7.10
7	Scarboro North	70	Milliken	1.78
7	Scarboro North	71	Markham	1.82
7	Scarboro North	72	Wideman	2.29
7	Scarboro North	73	Stouffville	3.04
7	Scarboro North	74	Goodwood	3.74
7	Scarboro North	75	Uxbridge	4.21
7	Scarboro North	91	Pickering	2.52
7	Scarboro North	92	Ajax	2.99
7	Scarboro North	93	Whitby	3.55
7	Scarboro North	94	Oshawa	4.07
7	Scarboro North	95	Courtice	4.49
7	Scarboro North	96	Bowmanville	4.91
8	Scarboro East	8	Scarboro East	1.68
8	Scarboro East	11	Port Credit/Cooksville	4.44
8	Scarboro East	12	Clarkson/Erindale	5.05
8	Scarboro East	13	Oakville	5.65
8	Scarboro East	14	Oakville West/Bronte	6.21
8	Scarboro East	15	Burlington	6.96
8	Scarboro East	16	Aldershot	7.62
8	Scarboro East	18	Hamilton	7.99
8	Scarboro East	21	Streetsville	5.09
8	Scarboro East	22	Meadowvale	5.14
8	Scarboro East	24	Milton	6.21
8	Scarboro East	31	Malton	4.02
8	Scarboro East	32	Bramalea	4.67
8	Scarboro East	33	Brampton	5.19
8	Scarboro East	34	Huttonville	5.84
8	Scarboro East	35	Georgetown	6.45
8	Scarboro East	36	Silvercreek	7.15
8	Scarboro East	37	Acton	7.62
8	Scarboro East	38	Rockwood	8.41
8	Scarboro East	39	Guelph	8.93
8	Scarboro East	61	Richmond Hill/Maple	3.18
8	Scarboro East	62	Oak Ridges/King	3.83
8	Scarboro East	63	Aurora	4.35
8	Scarboro East	64	Newmarket	4.67
8	Scarboro East	65	Bradford/Queensville	5.47
8	Scarboro East	66	Deerhurst/Keswick	6.40
8	Scarboro East	67	Churchill/Island Grove	6.87
8	Scarboro East	68	Stroud/Sutton	7.52

SCHEDULE OF AMOUNTS BETWEEN ZONES

<u>ZONE</u>	<u>AND</u>	<u>ZONE</u>	<u>FARE</u>	
8	Scarboro East	69	Barrie	7.90
8	Scarboro East	70	Milliken	2.80
8	Scarboro East	71	Markham	2.85
8	Scarboro East	72	Wideman	3.74
8	Scarboro East	73	Stouffville	4.11
8	Scarboro East	74	Goodwood	4.21
8	Scarboro East	75	Uxbridge	4.44
8	Scarboro East	91	Pickering	1.82
8	Scarboro East	92	Ajax	2.29
8	Scarboro East	93	Whitby	2.80
8	Scarboro East	94	Oshawa	3.22
8	Scarboro East	95	Courtice	3.83
8	Scarboro East	96	Bowmanville	4.16
11	Port Credit/Cooksville	11	Port Credit/Cooksville	1.68
11	Port Credit/Cooksville	12	Clarkson/Erindale	1.68
11	Port Credit/Cooksville	13	Oakville	2.24
11	Port Credit/Cooksville	14	Oakville West/Bronte	2.85
11	Port Credit/Cooksville	15	Burlington	3.55
11	Port Credit/Cooksville	16	Aldershot	4.25
11	Port Credit/Cooksville	18	Hamilton	4.58
11	Port Credit/Cooksville	21	Streetsville	1.73
11	Port Credit/Cooksville	22	Meadowvale	2.48
11	Port Credit/Cooksville	24	Milton	3.64
11	Port Credit/Cooksville	32	Bramalea	3.22
11	Port Credit/Cooksville	33	Brampton	2.57
11	Port Credit/Cooksville	34	Huttonville	3.18
11	Port Credit/Cooksville	35	Georgetown	3.83
11	Port Credit/Cooksville	36	Silvercreek	4.49
11	Port Credit/Cooksville	37	Acton	4.95
11	Port Credit/Cooksville	38	Rockwood	5.75
11	Port Credit/Cooksville	39	Guelph	6.31
12	Clarkson/Erindale	12	Clarkson/Erindale	1.68
12	Clarkson/Erindale	13	Oakville	1.68
12	Clarkson/Erindale	14	Oakville West/Bronte	2.24
12	Clarkson/Erindale	15	Burlington	2.94
12	Clarkson/Erindale	16	Aldershot	3.64
12	Clarkson/Erindale	18	Hamilton	3.97
12	Clarkson/Erindale	21	Streetsville	1.73
12	Clarkson/Erindale	22	Meadowvale	1.87
12	Clarkson/Erindale	24	Milton	3.04
13	Oakville	13	Oakville	1.68
13	Oakville	14	Oakville West/Bronte	1.68
13	Oakville	15	Burlington	2.34
13	Oakville	16	Aldershot	3.08
13	Oakville	18	Hamilton	3.41
13	Oakville	21	Streetsville	1.73
14	Oakville West/Bronte	14	Oakville West/Bronte	1.68
14	Oakville West/Bronte	15	Burlington	1.78
14	Oakville West/Bronte	16	Aldershot	2.48
14	Oakville West/Bronte	18	Hamilton	2.85
14	Oakville West/Bronte	21	Streetsville	2.24
15	Burlington	15	Burlington	1.68
15	Burlington	16	Aldershot	1.68
15	Burlington	18	Hamilton	2.10
15	Burlington	21	Streetsville	2.94
16	Aldershot	16	Aldershot	1.68
16	Aldershot	18	Hamilton	1.68
16	Aldershot	21	Streetsville	3.64
18	Hamilton	21	Streetsville	3.97
21	Streetsville	21	Streetsville	1.68
21	Streetsville	22	Meadowvale	1.68
21	Streetsville	24	Milton	2.10
22	Meadowvale	22	Meadowvale	1.68
22	Meadowvale	24	Milton	2.06
24	Milton	24	Milton	1.68
31	Malton	31	Malton	1.68
31	Malton	32	Bramalea	1.68
31	Malton	33	Brampton	2.06
31	Malton	34	Huttonville	2.71
31	Malton	35	Georgetown	3.32
31	Malton	36	Silvercreek	3.97

SCHEDULE OF AMOUNTS BETWEEN ZONES

<u>ZONE</u>	<u>AND</u>	<u>ZONE</u>	<u>FARE</u>	
31	Malton	37	Acton	4.44
31	Malton	38	Rockwood	5.28
31	Malton	39	Guelph	5.79
32	Bramalea	32	Bramalea	1.68
32	Bramalea	33	Brampton	1.68
32	Bramalea	34	Huttonville	2.20
32	Bramalea	35	Georgetown	2.80
32	Bramalea	36	Silvercreek	3.50
32	Bramalea	37	Acton	3.97
32	Bramalea	38	Rockwood	4.77
32	Bramalea	39	Guelph	5.28
33	Brampton	33	Brampton	1.68
33	Brampton	34	Huttonville	1.68
33	Brampton	35	Georgetown	2.15
33	Brampton	36	Silvercreek	2.80
33	Brampton	37	Acton	3.32
33	Brampton	38	Rockwood	4.11
33	Brampton	39	Guelph	4.63
34	Huttonville	34	Huttonville	1.68
34	Huttonville	35	Georgetown	1.78
34	Huttonville	36	Silvercreek	2.34
34	Huttonville	37	Acton	2.85
34	Huttonville	38	Rockwood	3.69
34	Huttonville	39	Guelph	4.21
35	Georgetown	35	Georgetown	1.68
35	Georgetown	36	Silvercreek	1.78
35	Georgetown	37	Acton	2.29
35	Georgetown	38	Rockwood	3.08
35	Georgetown	39	Guelph	3.60
36	Silvercreek	36	Silvercreek	1.68
36	Silvercreek	37	Acton	1.68
36	Silvercreek	38	Rockwood	2.43
36	Silvercreek	39	Guelph	2.94
37	Acton	37	Acton	1.68
37	Acton	38	Rockwood	1.78
37	Acton	39	Guelph	2.29
38	Rockwood	38	Rockwood	1.68
38	Rockwood	39	Guelph	1.78
39	Guelph	39	Guelph	1.68
52	Kleinburg	52	Kleinburg	1.68
52	Kleinburg	53	Nobleton	1.96
52	Kleinburg	54	Bolton	2.43
52	Kleinburg	55	Palgrave	2.94
52	Kleinburg	56	Schomberg	1.73
52	Kleinburg	61	Richmond Hill/Maple	1.78
52	Kleinburg	64	Newmarket	6.31
53	Nobleton	53	Nobleton	1.68
53	Nobleton	54	Bolton	1.68
53	Nobleton	55	Palgrave	2.06
53	Nobleton	56	Schomberg	1.73
53	Nobleton	61	Richmond Hill/Maple	2.43
53	Nobleton	64	Newmarket	6.78
54	Bolton	54	Bolton	1.68
54	Bolton	55	Palgrave	1.68
54	Bolton	56	Schomberg	1.73
54	Bolton	61	Richmond Hill/Maple	2.94
54	Bolton	64	Newmarket	7.24
55	Palgrave	55	Palgrave	1.68
55	Palgrave	56	Schomberg	1.68
55	Palgrave	61	Richmond Hill/Maple	3.46
55	Palgrave	64	Newmarket	7.71
56	Schomberg	61	Richmond Hill/Maple	1.73
56	Schomberg	64	Newmarket	1.73
61	Richmond Hill/Maple	61	Richmond Hill/Maple	1.68
61	Richmond Hill/Maple	62	Oak Ridges/King	1.78
61	Richmond Hill/Maple	63	Aurora	2.34
61	Richmond Hill/Maple	64	Newmarket	2.76
61	Richmond Hill/Maple	65	Bradford/Queensville	3.50
61	Richmond Hill/Maple	66	Deerhurst/Keswick	4.49
61	Richmond Hill/Maple	67	Churchill/Island Grove	4.91
61	Richmond Hill/Maple	68	Stroud/Sutton	5.61

SCHEDULE OF AMOUNTS BETWEEN ZONES

<u>ZONE</u>	<u>AND</u>	<u>ZONE</u>	<u>FARE</u>	
61	Richmond Hill/Maple	69	Barrie	5.98
61	Richmond Hill/Maple	71	Markham	1.68
61	Richmond Hill/Maple	72	Wideman	1.96
61	Richmond Hill/Maple	73	Stouffville	2.76
61	Richmond Hill/Maple	74	Goodwood	3.27
61	Richmond Hill/Maple	75	Uxbridge	3.93
62	Oak Ridges/King	62	Oak Ridges/King	1.68
62	Oak Ridges/King	63	Aurora	1.68
62	Oak Ridges/King	64	Newmarket	2.01
62	Oak Ridges/King	65	Bradford/Queensville	2.80
62	Oak Ridges/King	66	Deerhurst/Keswick	3.74
62	Oak Ridges/King	67	Churchill/Island Grove	4.16
62	Oak Ridges/King	68	Stroud/Sutton	4.81
62	Oak Ridges/King	69	Barrie	5.23
63	Aurora	63	Aurora	1.68
63	Aurora	64	Newmarket	1.68
63	Aurora	65	Bradford/Queensville	2.15
63	Aurora	66	Deerhurst/Keswick	3.08
63	Aurora	67	Churchill/Island Grove	3.55
63	Aurora	68	Stroud/Sutton	4.21
63	Aurora	69	Barrie	4.63
64	Newmarket	64	Newmarket	1.68
64	Newmarket	65	Bradford/Queensville	1.68
64	Newmarket	66	Deerhurst/Keswick	2.62
64	Newmarket	67	Churchill/Island Grove	3.04
64	Newmarket	68	Stroud/Sutton	3.69
64	Newmarket	69	Barrie	4.11
65	Bradford/Queensville	65	Bradford/Queensville	1.68
65	Bradford/Queensville	66	Deerhurst/Keswick	2.20
65	Bradford/Queensville	67	Churchill/Island Grove	2.66
65	Bradford/Queensville	68	Stroud/Sutton	3.32
65	Bradford/Queensville	69	Barrie	3.74
66	Deerhurst/Keswick	66	Deerhurst/Keswick	1.68
66	Deerhurst/Keswick	67	Churchill/Island Grove	1.82
66	Deerhurst/Keswick	68	Stroud/Sutton	2.34
66	Deerhurst/Keswick	69	Barrie	2.94
67	Churchill/Island Grove	67	Churchill/Island Grove	1.68
67	Churchill/Island Grove	68	Stroud/Sutton	1.68
67	Churchill/Island Grove	69	Barrie	2.01
68	Stroud/Sutton	68	Stroud/Sutton	1.68
68	Stroud/Sutton	69	Barrie	1.68
69	Barrie	69	Barrie	1.68
70	Milliken	70	Milliken	1.68
70	Milliken	71	Markham	1.68
70	Milliken	72	Wideman	1.73
70	Milliken	73	Stouffville	2.20
70	Milliken	74	Goodwood	2.90
70	Milliken	75	Uxbridge	3.36
71	Markham	71	Markham	1.68
71	Markham	72	Wideman	1.68
71	Markham	73	Stouffville	2.15
71	Markham	74	Goodwood	2.85
71	Markham	75	Uxbridge	3.32
72	Wideman	72	Wideman	1.68
72	Wideman	73	Stouffville	1.68
72	Wideman	74	Goodwood	2.34
72	Wideman	75	Uxbridge	2.85
73	Stouffville	73	Stouffville	1.68
73	Stouffville	74	Goodwood	1.87
73	Stouffville	75	Uxbridge	2.43
74	Goodwood	74	Goodwood	1.68
74	Goodwood	75	Uxbridge	1.68
75	Uxbridge	75	Uxbridge	1.68
91	Pickering	91	Pickering	1.68
91	Pickering	92	Ajax	1.68
91	Pickering	93	Whitby	2.10
91	Pickering	94	Oshawa	2.62
91	Pickering	95	Courtice	3.04
91	Pickering	96	Bowmanville	3.46
92	Ajax	92	Ajax	1.68
92	Ajax	93	Whitby	1.68

SCHEDULE OF AMOUNTS BETWEEN ZONES

<u>ZONE</u>	<u>AND</u>	<u>ZONE</u>	<u>FARE</u>
92 Ajax	94	Oshawa	1.78
92 Ajax	95	Courtice	2.52
92 Ajax	96	Bowmanville	2.90
93 Whitby	93	Whitby	1.68
93 Whitby	94	Oshawa	1.68
93 Whitby	95	Courtice	2.01
93 Whitby	96	Bowmanville	2.38
94 Oshawa	94	Oshawa	1.68
94 Oshawa	95	Courtice	1.68
94 Oshawa	96	Bowmanville	1.82
95 Courtice	95	Courtice	1.68
95 Courtice	96	Bowmanville	1.68
96 Bowmanville	96	Bowmanville	1.68

O. Reg. 110/91, s. 5.

6. This Regulation shall be deemed to have come into force on the 1st day of January, 1991.

TORONTO AREA TRANSIT OPERATING AUTHORITY:

L. H. PARSONS
*Chair*T. G. SMITH
Managing Director

Dated at Toronto, this 20th day of February, 1991.

14/91

MINING ACT**O. Reg. 111/91.**

Forms.

Made—March 20th, 1991.

Filed—March 21st, 1991.

REGULATION MADE UNDER THE
MINING ACT

FORMS

1. An application for a prospector's licence shall be in Form 1. O. Reg. 111/91, s. 1.**2.** A notice of change of address of a holder of a prospector's licence shall be in Form 2. O. Reg. 111/91, s. 2.**3.** An application for renewal of a prospector's licence shall be in Form 3. O. Reg. 111/91, s. 3.**4.** An application to record a staked mining claim under subsection 51 (1) of the Act shall be in Form 4. O. Reg. 111/91, s. 4.**5.—(1)** A dispute of a recorded claim under subsection 56 (1) of the Act shall be in Form 5.**(2)** An affidavit verifying the dispute shall be in Form 6. O. Reg. 111/91, s. 5.**6.** A notice of re-staking of a transferred claim under subsection 56 (7) of the Act shall be in Form 7. O. Reg. 111/91, s. 6.**7.** A transfer of an unpatented mining claim or any interest in an unpatented mining claim shall be in Form 8. O. Reg. 111/91, s. 7.**8.** An affidavit of a subscribing witness under subsection 71 (2) of the Act shall be in Form 9. O. Reg. 111/91, s. 8.**9.** A certificate of a pending proceeding under subsection 75 (2) of the Act shall be in Form 10. O. Reg. 111/91, s. 9.**10.** A report of assessment work under subsection 76 (2) of the Act,**(a)** shall be in Form 11 for work conducted before the mining claim is recorded; and**(b)** shall be in Form 12 for work conducted after the mining claim is recorded. O. Reg. 111/91, s. 10.**11.** A notice of abandonment or partial abandonment under section 83 of the Act shall be in Form 13. O. Reg. 111/91, s. 11.**12.** An affidavit verifying compliance with a recorder's order concerning partial abandonment of a mining claim under subsection 83 (5) of the Act shall be in Form 14. O. Reg. 111/91, s. 12.**13.—(1)** A notice of intention to perform ground assessment work under section 91a of the Act shall be in Form 15.**(2)** A certificate confirming the notice shall be in Form 16. O. Reg. 111/91, s. 13.**14.** An application for determination of surface rights compensation under section 92 of the Act shall be in Form 17. O. Reg. 111/91, s. 14.**15.** An application to exchange a lease for replacement leases under subsection 96 (1) of the Act shall be in Form 18. O. Reg. 111/91, s. 15.**16.** An application for a lease of surface rights under subsection 97 (2) of the Act shall be in Form 19. O. Reg. 111/91, s. 16.**17.—(1)** A boring permit under subsection 112 (1) of the Act shall be in Form 20.**(2)** An application for a boring permit under clause 112 (1) (b) of the Act shall be in Form 21.**(3)** An affidavit verifying the application referred to in subsection (2) shall be in Form 22.

(4) A transfer of a boring permit under subsection 112 (6) of the Act shall be in Form 23. O. Reg. 111/91, s. 17.

18. A notice of appeal under subsection 133 (3) of the Act shall be in Form 24. O. Reg. 111/91, s. 18.

19. A notice of advanced exploration under subsection 161a (1) of the Act shall be in Form 25. O. Reg. 111/91, s. 19.

20. A notice of mine production under subsection 161b(1) of the Act shall be in Form 26. O. Reg. 111/91, s. 20.

21. A notice of expansion or alteration under subsection 161d (5) of the Act shall be in Form 27. O. Reg. 111/91, s. 21.

22. A notice of declaration of abandonment under subsection 161h (4) or 161i (5) of the Act shall be in Form 28. O. Reg. 111/91, s. 22.

23. A notice to require a hearing under subsection 161-l (1) of the Act in respect of a matter under Part IX of the Act shall be in Form 29. O. Reg. 111/91, s. 23.

24. A notice of intention to retain an interest in surrendered mining lands in the form on unpatented mining claims under section 198 of the Act shall be in Form 30. O. Reg. 111/91, s. 24.

25. A notice of liability to taxation and forfeiture under section 208 of the Act shall be in Form 31. O. Reg. 111/91, s. 25.

26. A certificate of forfeiture under subsection 212 (3) of the Act shall be in Form 32. O. Reg. 111/91, s. 26.

27. **Regulation 635 of Revised Regulations of Ontario, 1980 is revoked.**

28. **This Regulation comes into force on the day section 82 of the Mining Amendment Act, 1989 comes into force.**

Form 1

Mining Act

APPLICATION FOR PROSPECTOR'S LICENCE

New Duplicate

Last Name (Please print)		Area Code ()	Home Telephone No.
First Name	Middle Name	Area Code ()	Work Telephone No.
Street			Apartment No.
City, Town or Village	Province/State	Country	Postal/Zip Code
Date of birth (year/month/day)			

I hereby apply for a prospector's licence and in support of my application make the following statements:

1. I am eighteen years of age or older.
2. I am / am not the holder of a prospector's licence.

Signature of Applicant	Date Signed
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Form 2

Mining Act

CHANGE OF ADDRESS

Client Number

Last Name	First Name	Middle Name
-----------	------------	-------------

Old Address

Street	
City, Town, Village	Province/State
Country	Postal/Zip Code
Area Code Home Telephone No. ()	
Area Code Work Telephone No. ()	

New Address

Street	
City, Town, Village	Province/State
Country	Postal/Zip Code
Area Code Home Telephone No. ()	
Area Code Work Telephone No. ()	

Signature	Date
-----------	------

Form 3*Mining Act*

APPLICATION FOR RENEWAL OF PROSPECTOR'S LICENCE

Prospector's Licence Number		Client Number	
Last Name (Please print)		Area Code ()	Home Telephone No.
First Name	Middle Name	Area Code ()	Work Telephone No.
Street			Apartment No.
City, Town or Village	Province/State	Country	Postal/Zip Code
Date of birth	Signature of Applicant		Date Signed

O. Reg. 111/91, Form 3.

Form 4

Mining Act

APPLICATION TO RECORD STAKED MINING CLAIM(S)

PART A

Name of Applicant			Licence No.:			
			Telephone No.:			
Address: Street, City/Town/Village, Province, Postal Code						
Name and address for service in Ontario: (required if applicant resides outside of Ontario)						
Name of Recorded Holder: same as above <input type="checkbox"/>			Client No.:			
			Telephone No.:			
Address: Street, City/Town/Village, Province, Postal Code						
Name and address for service In Ontario: (required if recorded holder resides outside Ontario)						
Mining division			Township(s) or Area(s) (show plan No.)			
Claim Number (tag number)	Number of 16-hectare Units per claim	Description if staking in sub- divided township (Lot No., Concession No., Section of Lot)	Staking			Office Use
			Post No.	Date	Time	
			Commenced			
			Completed			
			Commenced			
			Completed			
			Commenced			
			Completed			

PART B

Certificate of Applicant

I, the undersigned, state that:

- 1. My prospector's licence is valid.
- 2. I staked out or caused to be staked out, in accordance with the *Mining Act* and the regulations, the mining claim(s) on the lands described and shown in my application and on the sketch or plan in Part D.
- 3. I was personally on the ground during the staking of the lands.
- 4. The distances given in my application and in the sketch or plan in Part D are as accurate as could reasonably be ascertained.
- 5. All other statements and particulars set forth in my application and shown on the sketch or plan in Part D are correct.
- 6. At the time of staking there was nothing upon the lands to indicate that they were not open to be staked and I believe they were so open.
- 7. The staking is valid and should be recorded.
- 8. There are upon the lands staked, no buildings, clearings or improvements for farming or other purposes, except as follows and indicated on the sketch or plan in Part D:

9. The names and licence numbers of all persons who assisted in the staking are listed below: (if applicable)

Name	Licence No.
Name	Licence No.
Name	Licence No.
Name	Licence No.

- 10. I have staked using tags; or
 I have staked without using tags and have not used common posts.

..... Name of Applicant Applicant's signature
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..... Telephone No. Date
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PART C

Sample Sketches

SCALE: 1:20,000

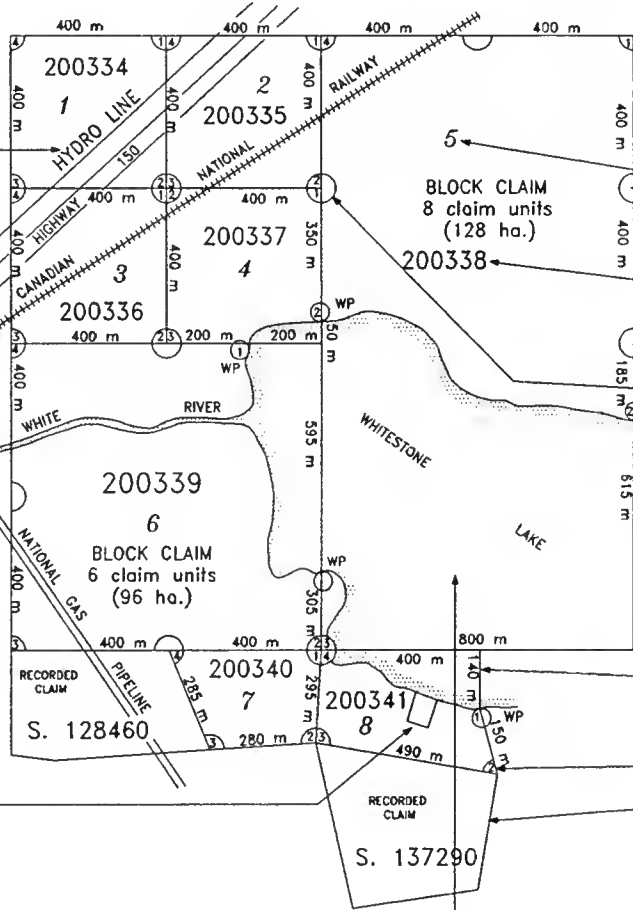
Complete the group sketch in Part D using this as a guide. Where applicable, the items indicated below must be shown in the sketch



Location of Claims
(Show lot and concession lines and numbers if township is subdivided)

Good Township

Developments
SUCH AS:
Hydro lines
Highways (and roads)
Railway lines
Pipeline
Summer cottages (or other buildings)



Claim Information
SUCH AS:
Claim line
Group claim number
Line post
Tag number if claim is pre-lagged
Common post
Witness post
Distance
Witness distance
Corner post
Tie-ons to existing claims

Topographic Features
SUCH AS: Lakes, rivers, creeks, ponds, etc.

- NOTE:
- In unusual circumstances please consult the mining recorder.
 - The sketch may require an attachment.
 - Indicate where flogging was used instead of blazes on the claim lines.
- Group claim No. 1 to 4 indicate claims staking individual claim units (16 ha.)
 Group claim No. 5 indicates a block claim staking 8 claim units (128 ha.)
 Group claim No. 6 indicates a block claim staking 6 claim units (96 ha.)
 Group claim No. 7 and 8 indicate claims staking individual claim units (16 ha.)

PART D

Form 6

PLEASE COMPLETE SKETCH IN INK

Mining Act

<p>GROUP SKETCH of claims listed in Part A. Sketch or plan of the mining claim(s) must show the corner posts, witness posts and line posts, and the distances between the posts in metres.</p> <p>Include topographic features such as lakes, rivers, creeks, ponds, etc. and developments such as hydro lines, highways, railways, pipelines, buildings, etc.</p> <p>Refer to sample sketches in Part C.</p>	<p>Magnetic declination used:</p> <p>Scale:</p>
---	---

O. Reg. 111/91, Form 4.

Form 5

Mining Act

DISPUTE AGAINST A RECORDED CLAIM

To the recorder of the Mining Division:

I, (name)

of (address)

allege that Mining Claim No.(s) recorded in the name of

is illegal or invalid in whole or in part because:

(state generally how and why claim is illegal or invalid, with details to be set out in an attached Statement of Claim).

If the disputant or the person on whose behalf the disputant is acting claims to be entitled to be recorded for or to be entitled to any right or interest in the lands or mining rights, or any part thereof, comprised in the disputed claim, give a general statement of particulars below, with details to be set out in an attached Statement of Claim.

Disputant's address for service in Ontario:

Disputant's Telephone No.:

Dated at	Date 19	Signature
----------	---------	-----------

O. Reg. 111/91, Form 5.

AFFIDAVIT VERIFYING DISPUTE

I, (name) of the of in the of , make oath and say (or affirm):

1. I have personal knowledge of the matters mentioned in the annexed dispute and the statements contained in it are true.

2. I signed the dispute

on the day of , 19

Sworn (or Affirmed) before me

at in the

of

this day of

19

Commissioner/Notary Public

Signature of Disputant

O. Reg. 111/91, Form 6.

Form 7

Mining Act

NOTICE OF RE-STAKING OF TRANSFERRED CLAIM

I, of the of in the of state that:

Mining Claim No. is a re-staking of transferred Claim No. (Note: If more than one transferred claim is being re-staked, please attach a schedule relating the old and new claim numbers).

The re-staking conforms as nearly as possible with the intended boundaries of Mining Claim No.

The re-staking was not performed to abandon any part of the claim.

This notice is made for no improper purpose.

Name (Please Print)

Signature

Date

O. Reg. 111/91, Form 7.

Form 8

Mining Act

TRANSFER OF UNPATENTED MINING CLAIM(S)

I, (client number),
the recorded holder of interest, in consideration
(specify percentage)
of dollars or other valuable consideration paid to me,
hereby transfer interest in () mining claim(s)
(specify percentage)
numbered

.....
(claim numbers must be listed separately; attach separate schedule if
required)

in
(specify township or area)

to as transferee.

Transferee's address

Transferee's telephone number ()

Transferee's client number

Dated at , this day of , 19

.....
Signature of witness

.....
Signature of transferor

NOTE: 1. The transfer must not be dated and executed before the
date of recording of the mining claim.

2. If transferee is not a resident of Ontario, show here the
name of the person who is a resident of Ontario upon
whom service may be made.

Name:

Telephone number: ()

Residence address in Ontario:

Mailing address in Ontario:

O. Reg. 111/91, Form 8.

Form 9

Mining Act

AFFIDAVIT OF SUBSCRIBING WITNESS

I,
of the of
in the of
make oath and say (or affirm):

1. I was personally present and did see the attached instrument signed
and executed by
one of the parties to the instrument.

- 2. The attached instrument was executed at
- 3. I know the above-mentioned party.
- 4. I am a subscribing witness to the attached instrument.

Sworn (or Affirmed) before me at

.....
in the of
this day of , 19

.....
Signature of witness

.....
Commissioner/Notary Public

- NOTE:
- 1. The subscribing witness must be a person other than the transferee.
 - 2. The commissioner or notary public must be a person other than the transferee.
 - 3. The signature and affidavit of a subscribing witness is not required if the transferor is a corporation and the corporate seal is affixed over the signature of an officer of the corporation on the transfer document.

O. Reg. 111/91, Form 9.

Form 10

Mining Act

CERTIFICATE OF PENDING PROCEEDING

I certify that in a proceeding commenced by

.....
(name)

.....
(address)

an interest is called in question in Mining Claim(s)

.....
recorded in the office of the recorder for the

.....
mining division in the name of

.....
The nature of the proceeding is

.....
Dated this day of , 19

.....
Mining and Lands Commissioner or

.....
Recorder of
Mining Division

O. Reg. 111/91, Form 10.

Form 11

Mining Act

REPORT OF WORK CONDUCTED BEFORE RECORDING CLAIM

Recorded Holder(s)		Client No.
Address		Telephone No.
Mining Division	Township/Area	M or G Plan No.
Dates work performed: From:		To:

Work performed (check one work group only)	
Work Group:	Type:
..... Regional surveys
..... Prospecting

Total assessment work claimed on the attached statement of cost \$. . .

Persons and survey company who performed the work: (give name and address of author of report)	
Name	Address
.....
.....
(attach a schedule if necessary)	

Certification of beneficial interest:

I certify that at the time the work was performed the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date	Recorded Holder or Agent (Signature)
---	------	---

Certification of work report:

I certify that I have personal knowledge of the facts set forth in this work report, having performed the work or witnessed it during and/or after its completion, and the annexed report is true.			
Name and address of person certifying			
	Telephone No.	Date	Certified by (Signature)

Claim Number	Number of claim units

Value of work done on land subsequently staked as this claim

Value applied to this claim		
From work done on land subsequently staked as this claim	From the allowable 25% of the survey costs from adjacent Crown land	Total applied to this claim

Value assigned from this claim	Reserve: work to be claimed at future date

Total number of claims

Total value of work done on subsequently

Total applied

Total assigned

Total reserve

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

1. Credits are to be cut back starting with the claim listed last, working backwards. _____
2. Credits are to be cut back equally over all claims contained in this work report. _____
3. Credits are to be cut back as prioritized on the attached appendix. _____

In the event that you have not specified your choice of priority, option 1 will be implemented.

If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.

.....
Signed

.....
Date

Form 12

Mining Act

REPORT OF WORK CONDUCTED AFTER RECORDING CLAIM

Recorded Holder(s)		Client No.
Address		Telephone No.
Mining Division	Township/Area	M or G Plan No.
Dates work performed:	From:	To:

Work performed (check one work group only)	
Work Group:	Type:
..... Geotechnical survey
..... Physical work, including drilling
..... Rehabilitation
..... Other authorized work
..... Assays
..... Assignment from reserve

Total assessment work claimed on the attached statement of cost \$. . .

Persons and survey company who performed the work: (give name and address of author of report)	
Name	Address
.....
.....
..... (attach a schedule if necessary)	

Certification of beneficial interest:

I certify that at the time the work was performed the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date	Recorded Holder or Agent (Signature)
---	------	---

Certification of work report:

I certify that I have personal knowledge of the facts set forth in this work report, having performed the work or witnessed it during and/or after its completion, and the annexed report is true.			
Name and address of person certifying			
	Telephone No.	Date	Certified by (Signature)

Work report number for applying reserve	Claim Number	Number of claim units

Value of assessment work done on this claim	Value applied to this claim

Value assigned from this claim	Reserve: Work to be claimed at a future date

--	--	--

--	--

--	--

Total number of claims

Total value of work done

Total value of work applied

Total assigned

Total reserve

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

- 1. Credits are to be cut back starting with the claim listed last, working backwards. _____
- 2. Credits are to be cut back equally over all claims contained in this work report. _____
- 3. Credits are to be cut back as prioritized on the attached appendix. _____

In the event that you have not specified your choice of priority, option 1 will be implemented.

If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.

.....
Signed

.....
Date

O. Reg. 111/91, Form 12.

Form 13

Mining Act

NOTICE OF ABANDONMENT OR PARTIAL ABANDONMENT

I,
the recorded holder of 100% of Mining Claim number
situate in
(township or area)

give notice that:

- I have abandoned all of this Mining Claim.
- I have abandoned the part of this Mining Claim that is indicated on the sketch below.

Dated at, this day of, 19 ...

Witness Recorded holder's signature

Sketch for partial abandonment:

O. Reg. 111/91, Form 13.

Form 14

Mining Act

AFFIDAVIT VERIFYING PARTIAL ABANDONMENT

I, of the
of in the of
make oath and say (or affirm):

- 1. I have partially abandoned Mining Claim number
situate in
(township or area)
- 2. I have complied with the instructions for partial abandonment set out in the Mining Recorder's order dated
the day of, 19 ...

Sworn (or Affirmed) before me
at in the
..... of
this day of,
19

.....
Signature of
Recorded Holder

.....
Commissioner/Notary Public

O. Reg. 111/91, Form 14.

Form 15

Mining Act

NOTICE OF INTENTION TO PERFORM ASSESSMENT WORK

To of
being the registered holder(s) of the surface rights of:

.....
Lot/Concession/Township/Area

recorded as Mining Claim(s)
.....

I, of
being the holder of the above-mentioned mining claim(s), give notice as follows:

- 1. A review of the parcel register/abstract of title for the above-mentioned lands confirms that you are the registered holder of the surface rights to the lands.
- 2. It is my intention to carry out ground assessment work on the lands, commencing on or about, in accordance with the *Mining Act*.

Dated at, this day of, 19 ...

.....
Signature of recorded holder of
mining claim(s)

O. Reg. 111/91, Form 15.

Form 16

Mining Act

**CERTIFICATE CONFIRMING NOTICE
OF INTENTION TO PERFORM ASSESSMENT WORK**

I, of
certify that the annexed notice of my intention to perform assessment work was given to the holder of the surface rights on

Dated at, this day of, 19 ...

.....
Signature of recorded holder of
mining claim(s)

O. Reg. 111/91, Form 16.

Form 17

Mining Act

**APPLICATION FOR DETERMINATION OF
SURFACE RIGHTS COMPENSATION**

Applicant		Telephone
Address — Street number and name		
City, Town or Village	Province	Postal Code

Applicant's lawyer or agent (if any)		Telephone
Address — Street number and name		
City, Town or Village	Province	Postal Code

Property to which application relates:

Mining Division
Lot/Concession/Township
Mining Claim No.

State briefly the reasons for the application:

.....

.....

.....

.....

State the amount of compensation offered and the amount expected:

.....

.....

Name of the other party		Telephone
Address — Street number and name		
City, Town or Village	Province	Postal Code

Date signed

Signature

O. Reg. 111/91, Form 17.

Form 18

Mining Act

APPLICATION TO EXCHANGE LEASE

Name of Lessee (Please print)	Date of birth
-------------------------------	---------------

I wish to surrender mining lease, which consists of mining claims

..... in the Mining Division, and to convert it to leases.

I wish the mining claims to be assigned to leases in the following manner:

	Mining Claims	MRO	MR&SR
1st Lease			
2nd Lease			
3rd Lease			
4th Lease			
5th Lease			
6th Lease			

For more than six leases, please attach a schedule.

MRO = mining rights only MR & SR = mining and surface rights

This lease is registered in the Registry/Land Titles Office for as parcel number

I have enclosed:

- (a) a copy of the application to surrender the lease,
- (b) a survey of legal description, and
- (c) the application fee.

Date

Signature

O. Reg. 111/91, Form 18.

Form 19

Mining Act

APPLICATION FOR LEASE OF SURFACE RIGHTS

Name of Applicant in full (Enter corporate name if application made on behalf of a corporation)

Address

Postal Code

Telephone No.

being the holder of Licence of Occupation No. or being the lessee or owner of mining rights described as follows: (Lease No., Parcel No., Township, Lot, Concession or Area.)

The applicant applies for the issue of a surface rights lease under the Mining Act for the land described as follows: (Township, Lot, Concession or Area.)

M or G Plan Number

Accompanying this application are the following:

- Statement of the purpose for which the surface rights are to be used.
- Description of the area applied for.
- Survey plan or sketch of the area.
- First year's rent of \$
- Application fee.
- Proof of ownership (deed or parcel register or registrar's abstract).

Date

Signature of Applicant

If signing officer for corporation, state name and office held

O. Reg. 111/91, Form 19.

Form 20

Mining Act

BORING PERMIT

No. Fee \$100.00

Under the Mining Act and the regulations, and subject to the limitations thereof, this boring permit is granted to

the holder of prospector's licence No. to prospect for petroleum or natural gas upon the area of land shown on the attached sketch or plan for a period of one year from the date of issue of this permit.

Dated at, this day of, 19 ...

..... Minister of Natural Resources O. Reg. 111/91, Form 20.

Form 21

Mining Act

APPLICATION FOR BORING PERMIT

To the Recorder of Mining Division:

I, (name)

of (address)

the holder of prospector's licence No. attached hereto, apply for a boring permit to prospect for petroleum or natural gas upon the area of land shown on the attached sketch or plan, and described as follows:

containing acres more or less.

Address for service of non-resident

Service may be made upon

whose residence and post office address is

Dated at, this day of, 19 ...

..... Signature of Applicant O. Reg. 111/91, Form 21.

Form 22

Mining Act

AFFIDAVIT TO ACCOMPANY APPLICATION FOR BORING PERMIT

County, etc., of | I, of the of in the of make oath and say (or affirm) that:

1. On the day of, 19 .., I staked out the area of land described in the attached application.

2. The distances given in the application and sketch or plan are as accurate as could reasonably be ascertained and all other statements and particulars set forth and shown in the application and sketch or plan are true and correct.

3. At the time of staking there was nothing upon the lands to indicate they were not open to be staked out for the purposes of the application and I believe that they were so open.

4. There are upon the lands so staked no buildings, clearing or improvements for farming or other purposes, except as follows:

..... and indicated on the sketch annexed hereto.

Sworn (or Affirmed) before me at in the of this day of, 19 Signature

..... Commissioner/Notary Public

O. Reg. 111/91, Form 22.

Form 23

Mining Act

TRANSFER OF BORING PERMIT

I,, the holder of Boring Permit No. as transferor, in consideration of dollars or other valuable consideration paid to me, transfer all my rights in Boring Permit No. or the land included therein to the holder of prospector's licence No. as transferee.

Dated at this day of, 19

Form 25

Mining Act

NOTICE OF ADVANCED EXPLORATION

Signature of Transferor

Witness

O. Reg. 111/91, Form 23.

Form 24

Mining Act

NOTICE OF APPEAL

Appellant	Telephone
Address — Street number and name	
City, Town or Village	Province Postal Code

Appellant's address for service in Ontario:

Street number and name		
City, Town or Village	Province	Postal Code

Appellant's lawyer or agent (if any)	Telephone
Address — Street number and name	
City, Town or Village	Province Postal Code

Specify the mining division of the mining recorder being appealed:

Specify the matter being appealed:

(complete if applicable)

Date the decision was recorded:

Date the act was done or refused to be done:

State briefly the reasons for the appeal:

Date signed

Signature

O. Reg. 111/91, Form 24.

Proponent	Telephone
Address — Street number and name	
City, Town or Village	Province Postal Code

Project name

Project manager	Telephone
Project site address	
City, Town or Village	Province Postal Code

Contractors associated with project (give all names and addresses)
--

Proposed date of commencement or recommencement of advanced exploration:

Attach to this notice a document containing the following information:

1. Description of project location (attach location map).
2. Boundaries of project site.
3. Land tenure of project site (surface and mineral rights).
4. Uses of adjacent land and water.
5. Owners and occupants of adjacent lands.
6. Operating plan (accompanied by a site plan) including:
 - (a) description of nature and extent of proposed work;
 - (b) means and location of access to project site;
 - (c) targeted minerals;
 - (d) expected life of project;
 - (e) number of workers;
 - (f) operating schedule.
7. Project schedule.
8. Description of any previous public notice or consultation.

Submitted by
(authorized contact person)
Signature
Date

O. Reg. 111/91, Form 25.

Form 26

Mining Act

NOTICE OF MINE PRODUCTION

Proponent		Telephone
Address — Street number and name		
City, Town or Village	Province	Postal Code

Project name

Project manager		Telephone
Project site address		
City, Town or Village	Province	Postal Code

Contractors associated with project (give all names and addresses)
--

Proposed date of commencement or recommencement of mine production:

Attach to this notice a document containing the following information:

1. Description of project location (attach location map).
2. Boundaries of project site.
3. Land tenure of project site (surface and mineral rights).
4. Uses of adjacent land and water.
5. Owners and occupants of adjacent lands.
6. Current status of project.
7. Operating plan (accompanied by a site plan) including:
 - (a) description of nature and extent of proposed work;
 - (b) means and location of access to project site;
 - (c) minerals to be recovered;
 - (d) expected production rates;
 - (e) expected life of project;
 - (f) number of workers;
 - (g) operating schedule.
8. Project schedule.
9. Description of any previous public notice or consultation.

Submitted by	(authorized contact person)
Signature	
Date	

O. Reg. 111/91, Form 26.

Form 27

Mining Act

NOTICE OF EXPANSION OR ALTERATION

Proponent		Telephone
Address — Street number and name		
City, Town or Village	Province	Postal Code

Project name

Senior operating manager		Telephone
Address — street number and name		
City, Town or Village	Province	Postal Code

Nature and extent of proposed expansion or alteration

.....

Expected effect on closure plan

.....

Submitted by	(authorized contact person)
Signature	
Date	

O. Reg. 111/91, Form 27.

Form 28

Mining Act

NOTICE OF DECLARATION OF ABANDONMENT

I declare the following project to be abandoned under section ... of the *Mining Act*:

Project:

Form 30

Mining Act

NOTICE OF INTENTION TO RETAIN INTEREST IN SURRENDERED MINING LANDS

Name of Owner, Lessee or Licensee	Client Number	Interest Held
-----------------------------------	---------------	---------------

Date: Signature:
Director of Mine Rehabilitation

O. Reg. 111/91, Form 28.

If there is more than one owner, lessee or licensee, please provide a schedule with the above information.

I have applied to surrender mining lands or mining rights described as

.....
(description)

in the Mining Division and hereby give notice that I wish to retain an interest in the lands or rights in the form of unpatented mining claims as follows:

..... I wish to retain an interest in all of the lands or rights.

..... I wish to retain an interest in part of the lands or rights in the following manner: (describe the area to be retained by former mining claim number, lot and concession, or mining location number, and township or area. Provide a map or sketch outlining the area to be retained.)

I have enclosed:

- (a) a copy of the application to surrender the above-mentioned mining lands or mining rights, and
- (b) the filing fee.

.....
Date

.....
Signature

O. Reg. 111/91, Form 30.

Specify the matter being appealed:
.....
.....
.....
.....
.....
.....

Date of the notice, order or declaration of the

Director of Mine Rehabilitation:

State briefly the reasons for the appeal:
.....
.....
.....
.....
.....
.....

.....
Date

.....
Signature

O. Reg. 111/91, Form 29.

Form 31

Mining Act

NOTICE OF LIABILITY TO TAXATION AND FORFEITURE

To
(the proper land registrar)

at

I hereby give notice under section 208 of the *Mining Act* of liability to mining land tax in respect of the lands or mining rights described in the attached Schedule, and give notice that arrears of tax for two years or more may result in forfeiture to the Crown of those lands or mining rights.

Dated at, this day of, 19

.....
Deputy Minister of Northern
Development and Mines

O. Reg. 111/91, Form 31.

Form 32

Mining Act

CERTIFICATE OF FORFEITURE

This is to certify that under subsection 212 (3) of the *Mining Act* the lands or mining rights described in the attached Schedule, and every interest therein, are declared forfeited to and vested in the Crown in right of Ontario.

Dated at , this day of , 19

.....
Minister of Mines

O. Reg. 111/91, Form 32.

14/91

MINING ACT

O. Reg. 112/91.

Fees.

Made—March 20th, 1991.

Filed—March 21st, 1991.

**REGULATION MADE UNDER THE
MINING ACT**

FEEES

1. The following fees are payable under the Act:

- 1. For inspecting a document filed with a recorder no charge
- 2. For a prospector's licence or renewal of a prospector's licence \$ 25.00
- 3. For a substituted prospector's licence, including fee for affidavit sworn in the recorder's office 5.00
- 4. For recording a mining claim under section 51 of the Act or for filing an application to record a mining claim under subsection 54 (2) of the Act:
 - i. For each claim composed of one unit of 16-hectares or less 20.00
 - ii. For each claim composed of more than one but less than seven 16-hectare units 40.00
 - iii. For each claim composed of seven or more 16-hectare units 60.00
- 5. The fees for metal tags to be used in staking out claims are as follows:
 - i. For each set of four corner post tags 2.00
 - ii. For each duplicate corner post tag 2.00
 - iii. For each line post tag50
- 6. For recording a dispute, per claim 50.00
- 7. For filing a notice of re-staking, per claim 10.00

- 8. For recording an order of the Commissioner or an order in an appeal from the Commissioner, per order 10.00
- 9. For recording a certificate of a pending proceeding, per claim 10.00
- 10. For filing a notice of abandonment or partial abandonment, per claim 10.00
- 11. For recording a recorder's order extending the time for performing and filing a report of assessment work, per claim 10.00
- 12. For submitting an application for a lease:
 - application fee, per lease 50.00
 - plus fee for each 16-hectare unit of land 4,400.00
 less the dollar value of assessment work recorded to date
- 13. For consenting to the transfer of a mining lease or licence of occupation or any interest in a lease or licence, per lease or licence 50.00
- 14. For approving the renewal of a mining lease or licence of occupation, per lease or licence 50.00
- 15. For submitting an application to exchange a lease for replacement leases, per replacement lease 250.00
- 16. For an inspection of mining claims proposed to be included in a perimeter survey, per claim 50.00
- 17. For a certificate of a recorder's decision 5.00
- 18. For a certified copy of an order or judgment of the Commissioner 5.00
- 19. For filing a notice of appeal from a decision of the Commissioner under section 155 of the Act, per notice 25.00
- 20. For appealing a requirement, order or declaration of a Director of Mine Rehabilitation 50.00
- 21. For appealing a decision of the Commissioner under Part IX of the Act to the Minister 50.00
- 22. For issuing a licence of occupation, lease or patent under subsection 190 (3) of the Act 750.00
- 23. For submitting an application for an order of the Commissioner requiring a co-owner to pay the owner's share of rents or expenditures or mining land tax 50.00

24. For filing a notice of intention to retain an interest in mining lands in the form of unpatented mining claims	50.00
25. For an order of the Lieutenant Governor in Council under section 200 of the Act revoking, cancelling or annulling the forfeiture of any mining lands or mining rights or the termination of a lease or relieving from forfeiture any mining claims, per application	750.00
26. For filing a transfer of the whole of or any interest in a mining claim, per claim	10.00
27. For filing an agreement, power of attorney, writ of execution or any other instrument affecting a recorded claim, right or interest, per claim	10.00
28. For a copy of a document or record obtained from the recorder's office, per page	1.00
29. For a certified copy of a document, record, or inspection report obtained from the recorder's office, per page	2.00
30. For an abstract of entries in a record book respecting a mining claim	1.00
31. For a certified abstract of entries in a record book respecting a mining claim	2.00
32. For an affidavit sworn in the recorder's office	5.00
33. For the receipt and handling in a recorder's office of a document filed by telephone transmission	5.00
34. For sending a document by telephone transmission from a recorder's office, per page	2.00

O. Reg. 112/91, s. 1.

2. This Regulation comes into force on the day section 82 of the Mining Amendment Act, 1989 comes into force.

14/91

MINING ACT

O. Reg. 113/91.

General.

Made—March 20th, 1991.

Filed—March 21st, 1991.

REGULATION MADE UNDER THE
MINING ACT

GENERAL

1. In the definition of "mine" as a noun in section 1 of the Act, a prescribed substance is any discharge or waste produced as a result of washing, crushing, grinding, sifting, reducing, leaching, roasting, smelting, refining, treating or research on a mineral or mineral bearing substance. O. Reg. 113/91, s. 1.

2. The annual rental for a licence of occupation under section 44 of the Act is \$5 per hectare. O. Reg. 113/91, s. 2.

3. The annual rental for a lease or renewal lease under section 94 of the Act is \$5 per hectare for mining rights and surface rights and \$3 per hectare for mining rights only. O. Reg. 113/91, s. 3.

4. The annual rental for a lease or renewal lease under section 95 of the Act is \$5 per hectare for mining rights and surface rights and \$3 per hectare for mining rights only. O. Reg. 113/91, s. 4.

5. The annual rental for a lease or renewal lease of surface rights under section 97 of the Act is \$5 per hectare. O. Reg. 113/91, s. 5.

6. The following conditions apply with respect to the partial abandonment of a mining claim under subsection 83 (2) of the Act:

1. Before the notice of partial abandonment is filed, the first prescribed unit of assessment work for the claim must be completed and the report of assessment work must be filed and approved.
2. The notice of partial abandonment shall be filed at least sixty days before the next anniversary date of the claim.
3. The portion of the claim remaining after partial abandonment must be contiguous.
4. Any assessment work performed on the portion of the claim being abandoned lapses upon the filing of the notice of partial abandonment unless the report of assessment work for that work has been filed and approved. O. Reg. 113/91, s. 6.

7. The rate of interest under subsection 196 (2) of the Act is 9 per cent. O. Reg. 113/91, s. 7.

8.—(1) A person who files a notice of intention to retain an interest in surrendered mining lands under subsection 198 (2) of the Act shall, within 120 days after the filing of the notice, stake out and record or cause to be staked out and recorded mining claims on the lands in which an interest is to be retained.

(2) The claims shall be staked out and recorded in the size, form and manner specified in the Act and the regulations. O. Reg. 113/91, s. 8.

9. The mining land tax payable under section 202 of the Act is,
- (a) \$1.2356 per hectare for 1991;
 - (b) \$2 per hectare for 1992 and 1993;
 - (c) \$4 per hectare for 1994 and 1995; and
 - (d) \$8 per hectare for 1996 and each subsequent year. O. Reg. 113/91, s. 9.

10. The following documents may be filed in a recorder's office by the telephone transmission of a facsimile of the document, if the facsimile is legible when received and the number of pages being transmitted, including the cover page, does not exceed eleven:

1. An application to obtain or renew a prospector's licence.
2. An application to record a mining claim.
3. A dispute under section 56 of the Act.
4. A notice of re-staking of a mining claim.
5. An order, judgment or certificate of the Divisional Court being filed under section 75 of the Act.
6. A report of assessment work, if no drawing contained in the report is larger than 8½ inches by 14 inches.

MINING ACT

O. Reg. 114/91.

Mine Development and Closure under Part IX of the Act.
Made—March 20th, 1991.
Filed—March 21st, 1991.

REGULATION MADE UNDER THE
MINING ACTMINE DEVELOPMENT AND CLOSURE
UNDER PART IX OF THE ACT

Definitions

1. In this Regulation,

“crown pillar” means a rock mass of variable geometry that is situated above the uppermost underground workings of a mine and that serves to ensure permanently or temporarily the stability of surface elements and underground workings;

“milling” means the treatment of a mineral-bearing substance for the recovery of metals or the concentration of minerals. O. Reg. 114/91, s. 1.

2.—(1) In this section,

“material” means rock, ore or any other substance excavated for the purpose of testing, mining or deposit evaluation, but does not include excavated overburden;

“surface stripping” means the removal of overburden to expose bedrock.

(2) For the purposes of this Regulation and Part IX of the Act, “advanced exploration” includes the following types of work:

1. Exploration carried out underground involving the construction or reconstruction of mine workings.
2. Extraction of material in excess of 500 tonnes.
3. Surface stripping on any mining lands, other than unpatented mining claims, of an area in excess of 10,000 square metres or displacement of material in excess of 10,000 cubic metres.
4. Surface stripping on any mining lands, other than unpatented mining claims, of an area in excess of 2,500 square metres or displacement of material in excess of 2,500 cubic metres, if any of the activity occurs less than 100 metres from a body of water. O. Reg. 114/91, s. 2.

Notice of Advanced Exploration or Mine Production

3. A notice of advanced exploration under subsection 161a (1) of the Act shall be signed by the proponent or an agent of the proponent and shall be submitted at least thirty days before the proposed date of commencement or recommencement of advanced exploration. O. Reg. 114/91, s. 3.

4. A notice of mine production under subsection 161b (1) of the Act shall be signed by the proponent or an agent of the proponent. O. Reg. 114/91, s. 4.

5. If any portion of the work being carried out on a project deviates by more than twelve months from the dates specified in the project schedule submitted with a notice under subsection 161a (1) or 161b (1) of the Act, the proponent shall submit a new notice to the Director. O. Reg. 114/91, s. 5.

7. A notice of abandonment or partial abandonment.

8. A certificate confirming that a notice of intention to perform assessment work has been given under section 91a of the Act.

9. An agreement respecting surface rights compensation.

10. An application for a lease.

11. A notice of appeal to the Commissioner under section 133 of the Act.

12. An order or judgment of the Commissioner being filed under section 150 of the Act.

13. A notice of appeal to the Divisional Court under section 155 of the Act.

14. An order of a Director of Mine Rehabilitation for the performance of a rehabilitation measure under section 161e of the Act. O. Reg. 113/91, s. 10.

11. A document filed by telephone transmission shall include a cover page containing the following information:

1. The name, address and telephone number of the person on whose behalf the document is being filed and the person's licence number and client number, if any.

2. The name of the recorder's office to which the document is being transmitted.

3. If applicable, a list of the mining claims in respect of which the document is to be recorded, if this information is not already set out in the document.

4. The date and time of the transmission.

5. The total number of pages being transmitted, including the cover page.

6. The name and telephone number of a person to contact in the event of transmission problems.

7. A statement indicating that the transmission is being made from an original document. O. Reg. 113/91, s. 11.

12.—(1) The time of filing a document filed by telephone transmission shall be deemed to be the time the transmission is completed in the recorder's office, as evidenced by the time shown on the last page of the transmission as printed in the recorder's office.

(2) If the telephone transmission of a document is completed in the recorder's office after 4.30 p.m. local time on a day the office is open for business, or at any time on a day the office is not open for business, the time of filing the document shall be deemed to be 8.15 a.m. on the next day that the office is open for business.

(3) Documents filed by telephone transmission during a period referred to in subsection (2) shall be deemed to have been filed in the order they were received in the recorder's office, as evidenced by the time shown on the last page of each transmission as printed in the recorder's office. O. Reg. 113/91, s. 12.

13. If fees are required to be paid to a recorder in respect of the filing of a document that is being filed by telephone transmission, the time of filing shall be deemed to be the later of the time of filing determined under section 12 and the time the fees are received in the recorder's office. O. Reg. 113/91, s. 13.

14. This Regulation comes into force on the day section 82 of the *Mining Amendment Act, 1989* comes into force.

Public Notice

6.—(1) Public notice under subsection 161a(1) or 161b(1) of the Act shall be given,

- (a) by publishing a notice in a newspaper having general circulation in the area in which the project is located; and
- (b) by holding a public information session in the area in which the project is located, unless a session has been previously held for the project within six months of the proposed date of commencement or recommencement of advanced exploration or mine production.

(2) The newspaper notice shall be published at least thirty days before the proposed date of commencement or recommencement of advanced exploration or mine production.

(3) The newspaper notice shall include the following:

1. The name and address of the proponent.
2. The name of the project.
3. The name, address and telephone number of the authorized contact person.
4. A description of the location of the project site and a map showing the location.
5. A description of the project, indicating its nature and size and the nature and extent of related work to be carried out to complete the project.
6. The proposed date of commencement or recommencement of advanced exploration or mine production.
7. The time and location of the public information session for the project.

(4) The public information session shall be held,

- (a) at least seven days after the date of publication of the newspaper notice; and
- (b) at least twenty days before the proposed date of commencement or recommencement of advanced exploration or mine production. O. Reg. 114/91, s. 6.

Closure Plan

7.—(1) A closure plan under Part IX of the Act shall be signed by the proponent or an agent of the proponent.

(2) The proponent shall submit eleven copies of the closure plan document to the Director.

(3) The closure plan shall set out the following:

1. The name and address of the proponent.
2. The location and address of the project site.
3. The name of the project.
4. The name and address of the person authorized to act on behalf of the proponent for purposes of obtaining the Director's acceptance of the closure plan.
5. The nature of the proponent's mining and surface rights in the land on the project site. O. Reg. 114/91, s. 7.

8.—(1) The closure plan shall include the following information with respect to the project site and areas to be affected by the project:

1. The current conditions and uses of the site and areas.

2. The expected conditions and uses of the site and areas after the project has been closed out and all rehabilitation measures have been completed.

(2) The information provided under subsection (1) shall include details of at least the following matters:

1. Climate and local air quality.
2. Mineralogy.
3. Topography.
4. Hydrology, including water quality.
5. Soils.
6. Plant and animal life.
7. Previous activity that may have resulted in contamination of the site. O. Reg. 114/91, s. 8.

9.—(1) The closure plan shall include details of the nature, extent and timing of the project and related work.

(2) The information provided under subsection (1) shall include details of at least the following matters:

1. The history of the project site.
2. The mineralogy of ore and host rock.
3. The expected mine life.
4. Mining and milling processes.
5. Expected rates of mining and milling production.
6. The nature, location and expected size of all tailings impoundment areas and all piles of ore, concentrate, rock, overburden and waste.
7. The nature and location of all structures, facilities and infrastructures.
8. The nature and location of all mine openings to surface.
9. The nature and location of all waste treatment systems.
10. The storage of all petroleum products, chemicals, hazardous substances and toxic substances.

(3) The closure plan shall include a schedule of any development work and mining work that may cause surface disturbances or hazards. O. Reg. 114/91, s. 9.

10.—(1) The closure plan shall include details of specific rehabilitation measures to be carried out progressively and at each stage of closure for each site or part of a site in order to attain the conditions and uses referred to in paragraph 2 of subsection 8 (1).

(2) The information provided under subsection (1) shall include details of at least the following matters:

1. Security of the project site.
2. Mine openings to surface.
3. Crown pillars.
4. Structures, facilities and infrastructures.
5. Machinery and equipment.
6. Ore, concentrate, waste, rock and overburden piles.

7. Tailings impoundment areas, including associated structures and treatment systems.
8. Other waste disposal or management sites, including associated structures and treatment systems.
9. Storage of petroleum products, chemicals, hazardous substances and toxic substances.
10. Dams and other drainage control structures.

(3) The closure plan shall include a schedule of rehabilitation work.

(4) The closure plan shall include details of alternative rehabilitation measures that have been considered. O. Reg. 114/91, s. 10.

11.—(1) The closure plan shall include details of the monitoring program to be carried out during and following each stage of closure, including,

- (a) the nature, frequency and duration of the monitoring program; and
- (b) the procedures for verifying the attainment of the conditions and uses referred to in paragraph 2 of subsection 8 (1).

(2) The closure plan shall include details of the long term site management program that will be implemented if the proposed rehabilitation work does not attain the conditions and uses referred to in paragraph 2 of subsection 8 (1). O. Reg. 114/91, s. 11.

12.—(1) The closure plan shall include details of the expected costs of carrying out the proposed rehabilitation measures, monitoring program and long term site management program.

(2) The information provided under this section shall include at least an expenditure schedule and an estimate of expected capital costs and operating costs.

(3) The information provided under this section shall be certified by the project geologist, a professional engineer or a public accountant. O. Reg. 114/91, s. 12.

13. The closure plan shall specify the form and amount of the financial assurances to be provided by the proponent in respect of the project. O. Reg. 114/91, s. 13.

14. The closure plan shall include an assessment of the effect of all mine openings on the stability of the surface areas above and adjacent to mining activity in order to determine whether the surface areas have been or are likely to be disturbed. O. Reg. 114/91, s. 14.

15.—(1) The closure plan shall include the plans referred to in sections 16 and 17 but copies of the plans are not required to be submitted to the Director except as provided in subsections (4) and (5).

(2) The proponent shall semi-annually review and revise the plans and shall make copies of them available for inspection at the project site or another location approved by the Director.

(3) Copies of the plans shall be prepared at a legible scale and shall be digitized or microfilmed or suitable for being digitized or microfilmed.

(4) The proponent shall promptly submit copies of the plans to the Director if the Director so requests.

(5) If the project is placed in a state of inactivity or is closed out, the proponent shall promptly revise the plans to the date of inactivity or closure and submit copies of the plans to the Director. O. Reg. 114/91, s. 15.

16. The proponent of the project to which the closure plan relates shall prepare,

- (a) plans on a horizontal plane with separate drawings for each mining level, showing all underground workings, including shafts, tunnels, diamond drill holes, dams and bulkheads;
- (b) plans on a vertical plane of all mine sections at suitable intervals and azimuths, showing all shafts, tunnels, drifts, stopes and other mine workings in relation to the surface, including the location of the top of the bedrock and the surface of any known body of water; and
- (c) a plan showing,
 - (i) the position of all fixed electrical apparatus and communication systems,
 - (ii) the routes of all fixed power feeders and fixed branch feeders, and
 - (iii) the ratings of all electrical feeder control apparatus and equipment. O. Reg. 114/91, s. 16.

17.—(1) The proponent of the project to which the closure plan relates shall prepare a surface plan showing the following:

1. The boundaries of the project site.
2. The co-ordinates of the portion of the project site on which mining has been carried out.
3. All bodies of water, roads, railways, power transmission lines, main pipelines, buildings, adits, surface workings, diamond drill holes, outcroppings of rock, dumps, tailing disposal sites, impoundment structures and mine openings to surface.
4. All stoppings of mine openings to surface.
5. The location of all crown pillars in relation to survey points on the surface.

(2) The surface plan shall show the boundaries of the project site,

- (a) if the site is in a subdivided township, in relation to the lot fabric;
- (b) if the site is in an unsubdivided township, in relation to the nearest mile post on a surveyed township boundary; or
- (c) if the site is in unsurveyed territory, in relation to the nearest mile post on a surveyed township boundary or the nearest base line or meridian line.

(3) The surface plan shall show the boundaries of the project site in relation to a coordinate control survey monument, if one exists within ten kilometres of the site.

(4) The measurements for boundaries referred to in subsection (2) or (3) shall be consistent with the accuracy standards for third order horizontal control surveys based on Ontario Specifications for Horizontal Control Surveys, 1979.

(5) The surface plan shall show the position and form of a permanent bench mark to which all elevations are related, and the permanent bench mark shall be related to,

- (a) the permanent bench mark of each property adjoining the project site; and
- (b) a Canadian Geodetic Datum bench mark, if one exists within ten kilometres of the project site. O. Reg. 114/91, s. 17.

Annual Report

18.—(1) The annual report under subsection 161d (3) of the Act shall contain the following information:

1. The name and address of the proponent.
2. The name of the project.
3. The name and address of the senior operating manager.
4. The name, address and telephone number of the authorized contact person.
5. The nature and extent of rehabilitation work carried out over the past year.
6. The nature and extent of rehabilitation work to be carried out during the next year.
7. Any changes in conditions of the project that may affect the closure plan for the project during the next three years.
8. The results of all monitoring described in the closure plan.
9. Any changes in conditions that may affect the rehabilitation of an advanced exploration project that is not subject to a closure plan.

(2) The annual report shall include an assessment of the effect of all mine openings on the stability of the surface areas above and adjacent to mining activity in order to determine whether the surface areas have been or are likely to be disturbed. O. Reg. 114/91, s. 18.

Notice of Producing or Temporarily Suspended Mine

19.—(1) A notice of a producing or temporarily suspended mine under subsection 161g (1) of the Act shall be signed by the proponent or an agent of the proponent and shall contain the following information:

1. The name and address of the proponent.
2. The name of the mine.
3. The name and address of the senior operating manager.
4. The name, address and telephone number of the authorized contact person for the mine and for each operation, site and sub-site.
5. A description of the location and boundaries of the mine and a map showing the location and boundaries.
6. The nature of the proponent's mining and surface rights in the land on the project site.
7. Any anticipated closure events.
8. A list of all relevant government certificates, orders, permits and approvals that relate to closure of the mine and that are currently in effect or applied for, by type, number and date of issue or application, as applicable.

(2) The notice shall contain a description of the nature and status of the project, including the following information:

1. Minerals produced.
2. Mining and milling operations, processes and rates of production.
3. The expected mine life.
4. The number of workers.
5. Operating schedules. O. Reg. 114/91, s. 19.

Notice of Declaration of Abandonment

20. A notice of declaration of abandonment under section 161h or

161i of the Act shall be sent by registered mail to the proponent at the proponent's last known address at least thirty days before,

- (a) an agent of the Crown enters onto the site to implement rehabilitative measures; or
- (b) the Lieutenant Governor in Council declares the proponent's lease to be void. O. Reg. 114/91, s. 20.

Rehabilitation Standards

21.—(1) Before a project is placed in a state of temporary suspension, the proponent shall take all reasonable measures to prevent personal injury or property damage that is reasonably foreseeable as a result of the project being in a state of temporary suspension.

(2) The following are the minimum rehabilitative measures that shall be taken by the proponent:

1. All mine openings that are potentially dangerous shall be protected against inadvertent access.
2. All reasonable measures shall be taken to restrict access to the site and all buildings and other structures to authorized persons only.
3. All mechanical and hydraulic systems shall be left in a no-load condition.
4. All waste management systems shall be maintained as required by the closure plan.
5. All monitoring programs shall be continued as required by the closure plan.
6. All contaminated effluents shall be controlled as required by the closure plan.
7. All petroleum products, chemicals and waste other than tailings and rock shall be made secure.
8. All tailings and water impoundment structures and all rock piles, overburden piles and stockpiles shall be left in a stable and safe condition. O. Reg. 114/91, s. 21.

22.—(1) Before a project is placed in a state of inactivity, the proponent shall take all reasonable measures to prevent personal injury or property damage that is reasonably foreseeable as a result of the project being in a state of inactivity.

(2) The following are the minimum rehabilitative measures that shall be taken by the proponent:

1. All shafts, raises and stopes open to surface shall be stopped with a reinforced concrete cap anchored to bedrock and capable of supporting a uniformly-distributed load of twelve kilopascals and a concentrated load of fifty-four kilonewtons and shall be supplied with a vent capable of preventing accumulations of gas beneath the cap.
2. All portals of adits and declines shall be sealed in a manner to prevent unauthorized or inadvertent access.
3. All mine openings to surface that create a hazard greater than the hazards associated with the natural topographic features of the area shall be stabilized and secured against inadvertent access.
4. All surface areas disturbed or likely to be disturbed by mining shall be stabilized or protected against inadvertent access if such disturbance is likely to endanger the public or property.
5. All reasonable measures shall be taken to restrict access to the site and all buildings and other structures to authorized persons only.

6. All mechanical and hydraulic systems shall be left in a no-load condition.
7. All tailings impoundment areas, landfill sites and other waste management sites and systems shall be monitored, maintained or decommissioned as required by the closure plan.
8. All petroleum products, chemicals and waste shall be removed, disposed of, isolated or managed on site.
9. All tailings and water impoundment structures and all rock piles, overburden piles and stockpiles shall be left in a stable and safe condition.

(3) The proponent shall inspect the site at least once every six months to ensure that all required rehabilitative measures are in place.

(4) The proponent shall take all necessary steps to maintain the required rehabilitative measures. O. Reg. 114/91, s. 22.

23.—(1) Before a project is closed out, the proponent shall take all reasonable measures to prevent personal injury or property damage that is reasonably foreseeable as a result of the project being closed out.

(2) The following are the minimum rehabilitative measures that shall be taken by the proponent:

1. All shafts, raises and stopes open to surface shall be stopped with a reinforced concrete cap anchored to bedrock and capable of supporting a uniformly distributed load of twelve kilopascals and a concentrated load of fifty-four kilonewtons, and shall be supplied with a vent capable of preventing an accumulation of gas beneath the cap.
2. All portals of adits and declines shall be sealed off in a manner to prevent unauthorized or inadvertent access.
3. All mine openings to surface that create a hazard greater than the hazards associated with the natural topographic features of the area shall be stabilized and secured against inadvertent access.
4. All surface areas disturbed or likely to be disturbed by mining shall be stabilized or protected against inadvertent access if such disturbance is likely to endanger the public or property.
5. All buildings, power transmission lines, pipelines, railways, airstrips and other structures shall be dismantled and removed from the site or otherwise disposed of.
6. All machinery, equipment and storage tanks shall be removed from the site or otherwise disposed of.
7. All transportation corridors shall be closed off and re-vegetated.
8. All concrete structures, foundations and slabs shall be removed or covered by overburden and re-vegetated.
9. All petroleum products, chemicals and waste shall be removed, disposed of, isolated or managed on site.
10. All landfill sites and other waste management sites shall be rehabilitated.
11. If petroleum products, chemicals or waste have been stored or transferred during the life of the operation, the soils in the immediate vicinity of the storage sites shall be tested and any contaminated soils shall be controlled or disposed of.
12. All tailings impoundment areas, rock piles, overburden piles and stockpiles shall be rehabilitated or treated to ensure stability, erosion control and effluent quality.

13. All tailings, water and other control structures shall be either breached or made stable against any static and dynamic loading to which they may be subjected.
14. All watercourses on the site shall be either restored to their original courses or directed to new courses that will sustain themselves in the future without maintenance and that are consistent with the intended future use of the land.
15. All disturbed sites shall, to the extent practicable, be re-vegetated. O. Reg. 114/91, s. 23.

24. A proponent is not required to carry out a specific rehabilitative measure referred to in subsection 21 (2), 22 (2) or 23 (2) in circumstances where,

- (a) it is impracticable to carry out the measure;
- (b) the measure would adversely affect the environment; or
- (c) the measure is inconsistent with a land use control set out in a municipal by-law made under Part V of the *Planning Act, 1983* or an order of the Minister of Municipal Affairs made under Part V of the *Planning Act, 1983*. O. Reg. 114/91, s. 24.

25.—(1) The proponent of a project shall have a professional engineer conduct an evaluation to assess the long-term stability of the work described in paragraphs 1, 3, 4 and 9 of subsection 22 (2) and paragraphs 1, 3, 4, 12 and 14 of subsection 23 (2).

(2) The proponent shall submit to the Director a copy of a report on the evaluation prepared by the engineer who conducted it. O. Reg. 114/91, s. 25.

Commencement

26. This Regulation comes into force on the day section 82 of the *Mining Amendment Act, 1989* comes into force.

14/91

MINING ACT

O. Reg. 115/91.
Claims Staking.
Made—March 20th, 1991.
Filed—March 21st, 1991.

REGULATION MADE UNDER THE MINING ACT

CLAIMS STAKING

1. Sections 2 and 3 apply with respect to mining claims staked out in unsurveyed territory or in an annulled part of a subdivided township. O. Reg. 115/91, s. 1.

2.—(1) A mining claim shall be staked out so that it,

- (a) consists of one or more square 16-hectare units;
- (b) has a contiguous area of not less than 16 hectares, more or less, and not more than 256 hectares, more or less;
- (c) has boundaries running north and south and east and west astronomically; and
- (d) has the form of a rectangle.

(2) The size of a mining claim shall as nearly as practicable be a multiple of 16 hectares.

(3) The boundaries of a mining claim shall extend downwards vertically on all sides.

(4) The length of any boundary of a mining claim shall not exceed 3,200 metres, more or less, and shall not exceed four times the length of any other boundary.

(5) The measurements of the boundaries of a mining claim shall be horizontal. O. Reg. 115/91, s. 2.

3.—(1) An irregular area of land lying between land not open to be staked out, or bordering on water, may be staked out with boundaries coterminous to the land or water, but the mining claim shall be made to conform as nearly as practicable to the form and size specified in section 2.

(2) Land covered with water may be included in a mining claim in the same way as land not covered with water. O. Reg. 115/91, s. 3.

4. Sections 5 to 7 apply with respect to mining claims staked out in surveyed territory other than an annulled part of a subdivided township. O. Reg. 115/91, s. 4.

5.—(1) A mining claim shall be staked out so that it,

- (a) has an area of not more than 256 hectares, more or less, and not less than the minimum size specified in this section;
- (b) has boundaries coincident with or parallel to lot or concession lines established by the original survey; and
- (c) has the form of a rectangle or parallelogram.

(2) A mining claim may consist of contiguous lots or parts thereof, quarter sections or subdivisions of a section in any combination.

(3) The boundaries of a mining claim shall extend downwards vertically on all sides.

(4) The length of any boundary of a mining claim shall not exceed 3,200 metres, more or less, and shall not exceed four times the length of any other boundary.

(5) Every survey of a mining claim,

- (a) shall describe the parts of the lots or sections shown on the original survey of the township that are included within the limits of the claim, together with their areas; and
- (b) shall be governed by the lot and concession lines established by an existing survey and not by the location of corner posts.

(6) In a township surveyed into sections of approximately 260 hectares that are subdivided into quarter sections or subdivisions containing approximately 65 hectares, a mining claim of minimum size shall contain 16 hectares, more or less, and shall consist of the northeast, northwest, southeast or southwest quarter of a quarter section or subdivision.

(7) In a township surveyed into lots of approximately 130 hectares, a mining claim of minimum size shall contain 16 hectares, more or less, and shall consist of the northeast, northwest, southeast or southwest quarter of the north half of a lot or an equivalent quarter of the south half of a lot.

(8) In a township surveyed into lots of approximately 80 hectares, a mining claim of minimum size shall contain 20 hectares, more or less, and shall consist of the northeast, northwest, southeast or southwest quarter of a lot.

(9) In a township surveyed into lots of approximately 60 hectares, a mining claim of minimum size shall contain 15 hectares, more or less, and shall consist of the northeast, northwest, southeast or southwest quarter of a lot.

(10) In a township surveyed into lots of approximately 40 hectares, a mining claim of minimum size shall contain 20 hectares, more or less, and shall consist of the north, south, east or west half of a lot. O. Reg. 115/91, s. 5

6.—(1) A mining claim shall be staked out in accordance with this section if it is impossible to stake out a claim of the applicable form and size specified in section 5 because the lot or subdivision of a section being staked out is covered with water or is irregular in form or for some other reason relating to the nature of the lot or subdivision.

(2) The mining claim shall as nearly as practicable be of the applicable form and size specified in section 5.

(3) The mining claim shall have such, if any, of its boundaries as can be so made coincident with boundary lines of the lot or subdivision of a section being staked out and shall have as many as possible of its boundaries that are not so coincident parallel to boundaries of the lot or subdivision that are straight lines.

(4) If necessary in order to procure the applicable size specified in section 5, the mining claim,

- (a) may extend into any part of the lot or subdivision of a section being staked out; and
- (b) may include land lying between parcels of land not open to be staked out or between such land and the lot or subdivision of a section being staked out. O. Reg. 115/91, s. 6.

7. Land that would otherwise be included in the area of a lot or subdivision of a section, but that is excluded from the lot or subdivision because it is covered with water or for some other reason, may be included in a mining claim as if it were part of the lot or subdivision. O. Reg. 115/91, s. 7.

8.—(1) The staking out of a mining claim shall be a continuous action.

(2) A licensee shall stake out a mining claim by erecting a post at each of the four corners of the claim so that,

- (a) the No. 1 post is at the northeast corner;
- (b) the No. 2 post is at the southeast corner;
- (c) the No. 3 post is at the southwest corner; and
- (d) the No. 4 post is at the northwest corner.

(3) A corner post tag affixed to a corner post shall face the next post following the post in the order specified in subsection (2).

(4) Where there are standing trees on the area being staked, the perimeter of the mining claim shall be clearly marked during staking by plainly blazing the trees on two sides only in the direction of travel and by cutting the underbrush along the boundary lines of the claim.

(5) Despite subsection (4), the perimeter of a mining claim or portion of a claim located in an area referred to in subsection 33 (1) of the Act may be clearly marked by securely affixing durable flagging tape to standing trees and underbrush along the boundary lines of the claim.

(6) Where there are no standing trees on the area being staked, the perimeter of the mining claim shall be clearly marked during staking by erecting durable pickets or monuments of earth or rock along the perimeter so that the boundary lines of the claim are clearly outlined.

(7) A licensee staking out a claim may use other persons to assist him or her in constructing posts and marking the perimeter of the claim.

(8) If a claim is staked in an area open to staking for twenty-four hours or more, the licensee shall inscribe on one of the corner posts the date and time of completion of the staking.

(9) If the area to be staked has been open to staking for less than twenty-four hours,

- (a) the staking shall commence in the northeast corner of the mining claim and proceed in a clockwise direction;
- (b) a single licensee shall erect and inscribe all posts; and
- (c) the date and time of commencement and completion of the staking shall be inscribed on the No. 1 post. O. Reg. 115/91, s. 8.

9.—(1) If a mining claim consists of a block of two or more 16-hectare units and is staked out in unsurveyed territory or an annulled part of a subdivided township, line posts shall be erected along the perimeter of the claim at 400 metre intervals, more or less.

(2) If a mining claim consists of a block of two or more 16-hectare units and is staked out in surveyed territory other than an annulled part of a subdivided township, line posts shall be erected at all locations where the corner of a lot or subdivision of a section lies on the perimeter of the claim. O. Reg. 115/91, s. 9.

10.—(1) Witness posts shall be erected in accordance with this section for a corner of a mining claim at which it is impracticable to erect a corner post for one of the following reasons:

1. The nature or conformation of the ground makes the erecting of a corner post impracticable.
2. The true location of the corner falls within a body of water.
3. The corner is inaccessible because of incumbent surface rights.

(2) The witness posts shall be erected at the nearest practicable points to the true corner on each boundary of the claim so that the extensions of each boundary to the corner will intersect.

(3) The first erected witness post shall bear the same marking and tag as that required for a corner post at the true corner, together with the letters "WP" and an indication of the direction and distance of the site of the true corner from the witness post.

(4) The other witness post shall bear the letters "WP", the corner post number for the true corner and an indication of the direction and distance of the site of the true corner from the witness post. O. Reg. 115/91, s. 10.

11.—(1) If the nature or conformation of the ground at the true location of a line post makes the erecting of a line post impracticable, a line post need not be erected at that location if a witness post is erected on the claim boundary on each side of the impracticable area at the nearest practicable point to the true location.

(2) If the true location of a line post falls within a body of water, a line post need not be erected at that location if a witness post is erected on the claim boundary on each side of the body of water at the nearest practicable point to the true location.

(3) If the true location of a line post is inaccessible because of incumbent surface rights, a line post need not be erected at that location if a witness post is erected on the claim boundary on each side of the incumbent surface rights boundary at the nearest practicable point to the true location. O. Reg. 115/91, s. 11.

12.—(1) Every claim post used for staking a mining claim shall stand 1.2 metres above the ground when erected, be squared or faced on four sides for thirty centimetres from the top, and be ten centimetres in diameter within the squared section.

(2) Claim posts shall be erected only by a licensee.

(3) Every claim post shall be a post or standing stump not previously used as a post for a mining claim.

(4) Commercial timber may be used for claim posts in areas where it is impracticable or undesirable to cut down trees. O. Reg. 115/91, s. 12.

13.—(1) A licensee staking a claim using metal tags,

- (a) shall affix to each corner post the appropriately numbered tag in accordance with subsection 8 (2); and
- (b) shall inscribe on each corner post his or her name and licence number and the date and time of erecting the post.

(2) A licensee staking a claim without using metal tags shall inscribe on each corner post,

- (a) the number of the post in accordance with subsection 8 (2); and
- (b) his or her name and licence number and the date and time of erecting the post.

(3) If a claim is located in a township surveyed into lots, quarter sections or subdivisions of a section, the licensee staking the claim shall inscribe on the No. 1 corner post a description of the part of the township comprised in the claim, mentioning the lot and concession or the section by number.

(4) A licensee staking a claim using metal tags shall inscribe on the line post tag attached to each line post the claim number and the direction and distance from the corner post from which the licensee is proceeding.

(5) A licensee staking a claim without using metal tags shall inscribe upon each line post his or her licence number and the direction and distance from the corner post from which the licensee is proceeding.

(6) Inscriptions and line post tags on line posts shall be located,

- (a) on the south face of any line post erected between the No. 1 corner post and the No. 2 corner post;
- (b) on the west face of any line post erected between the No. 2 corner post and the No. 3 corner post;
- (c) on the north face of any line post erected between the No. 3 corner post and the No. 4 corner post; and
- (d) on the east face of any line post erected between the No. 4 corner post and the No. 1 corner post.

(7) Information required to be inscribed on a claim post or metal tag shall be inscribed in a legible and durable manner.

(8) Inscriptions and metal tags shall be located on the same side of a claim post. O. Reg. 115/91, s. 13.

14.—(1) If metal tags are affixed to the corner posts and line posts at the time of staking out a mining claim, the licensee who staked out the claim shall so indicate in the application to record the claim.

(2) If metal tags are not used at the time a mining claim is staked out, as soon as possible after the recording of the claim but not later than six months thereafter, the holder of the claim,

- (a) shall affix or cause to be affixed to each corner post of the claim a corner post tag inscribed with the recorded number of the claim; and
- (b) shall affix or cause to be affixed to each line post of the claim a line post tag inscribed with the information specified in subsection 13 (5). O. Reg. 115/91, s. 14.

15.—(1) If a licensee uses metal tags in staking out a group of two or more contiguous mining claims and the licensee applies to record the claims at the same time, the licensee may erect common posts at common corners or at common line post or witness post locations if,

- (a) the corner post tag and the inscription pertaining to each claim are placed on the side of the common corner post facing the next corner post for that claim in a clockwise manner;
- (b) the line post tag and the inscription pertaining to each claim are placed on the side of the common line post facing the next corner post for that claim in a clockwise manner; and
- (c) the sketch or plan accompanying the application to record the claims indicates any common posts so erected.

(2) If a licensee stakes out a group of two or more contiguous mining claims without using metal tags at the time of staking and the licensee applies to record the claims at the same time, the licensee may erect common posts at common corners or at common line post or witness post locations if,

- (a) the inscription pertaining to each claim is placed on the side of the common post facing the next corner post for that claim in a clockwise manner; and
- (b) the sketch or plan accompanying the application to record the claims indicates any common posts so erected. O. Reg. 115/91, s. 15.

16.—(1) Subject to subsection (3), a person who stakes out any land open to prospecting or erects or places any post or marking upon any land open to prospecting, in a manner not in accordance with the Act and this Regulation, is not entitled to record a mining claim on the land or to stake out the land again.

(2) Subject to subsection (3), a person who stakes out any land open to prospecting and fails to make an application to record the claim within the time specified in subsection 51 (1) of the Act is not entitled to record a mining claim on the land or to stake out the land again.

(3) A person ceases to be disentitled under subsection (1) or (2) if the person notifies the recorder in writing of the staking out or post or marking and of the person's abandonment of it, satisfies the recorder that the person acted in good faith and for no improper purpose and obtains from the recorder a certificate stating that the recorder is satisfied that the person so acted.

(4) A recorder who issues a certificate referred to in subsection (3) shall enter the certificate in his or her books with its date of issue. O. Reg. 115/91, s. 16.

17. If it appears that a licensee has attempted in good faith to comply with the Act and this Regulation, a mining claim of the licensee is not invalidated by,

- (a) the inclusion in the claim of an area of more or less than the applicable size specified in section 2 or 5; or
- (b) the failure of the licensee to describe or set out the actual area or parcel of land staked out in the application to record the claim or the sketch or plan accompanying the application. O. Reg. 115/91, s. 17.

18. This Regulation comes into force on the day section 82 of the Mining Amendment Act, 1989 comes into force.

14/91

MINING ACT

O. Reg. 116/91.
Assessment Work.
Made—March 20th, 1991.
Filed—March 21st, 1991.

REGULATION MADE UNDER THE MINING ACT

ASSESSMENT WORK

1. In this Regulation "assessment year" means the year between anniversary dates. O. Reg. 116/91, s. 1.

2. Until a lease is applied for, the holder of a mining claim shall perform, on each unit of 16 hectares or less of that claim, assessment work having the minimum value specified in Column 2 within the period specified in Column 1:

<u>COLUMN 1</u>	<u>COLUMN 2</u>
<u>Number of assessment years after the recording of the claim</u>	<u>Value of assessment work</u>
1	\$ 0
2	400
3	800
4	1200
5	1600
6 and subsequent years	An additional \$400 per year

O. Reg. 116/91, s. 2.

3.—(1) Expenses incurred by the holder of a mining claim are eligible for credit as assessment work if they are related to a type of work eligible for assessment work credit under this Regulation and if they,

- (a) are direct expenses related to labour and field supervision, contractor's and consultant's fees, supplies used and equipment rental; or
- (b) are indirect expenses related to,
 - (i) the transportation of supplies from the point of procurement to the mining claim,
 - (ii) the shipment of samples, assays and chemical analyses of samples from the claim,
 - (iii) food and lodging,
 - (iv) the mobilization and demobilization of equipment and crew, or
 - (v) the transportation of persons within the Province of Ontario to and from the claim.

(2) Indirect expenses are eligible for credit to a maximum of 20 per cent of the direct expenses.

(3) No credit shall be given for indirect expenses related to rehabilitation work.

(4) If the holder of a mining claim personally works on the claim, that work is eligible for assessment work credit at a value based on industry standards for similar work.

(5) Expenses are eligible for work assessment credit only if they are reasonable and carried out for the purposes of exploration. O. Reg. 116/91, s. 3.

4.—(1) Subject to sections 8 and 21, assessment work performed on a mining claim in any assessment year is eligible for assessment work credit if filed within sixty months after the date of performance.

(2) Assessment work filed for credit within twenty-four months after the date of performance shall be credited at 100 per cent of the value.

(3) Assessment work filed for credit after twenty-four and before sixty months after the date of performance shall be credited at 50 per cent of the value.

(4) Assessment work credits filed in excess of the minimum value described in section 2 shall be banked by the recorder and carried forward indefinitely.

(5) Upon the request of the holder, the banked amount may be applied against future assessment work requirements for that mining claim or other contiguous mining claims under section 7, for up to a maximum of five assessment years at a time.

(6) The excess amount is a credit in respect of the relevant mining claim even if the claim is transferred or leased but reverts to zero if the claim is forfeited or otherwise terminated. O. Reg. 116/91, s. 4.

5. An application for an extension of time under subsection 86 (1) of the Act may be granted on the following conditions:

1. There is no deficiency of assessment work yet to be performed under any previous extension of time granted for performing and filing assessment work.
2. The length of the extension does not exceed one year. O. Reg. 116/91, s. 5.

6.—(1) All work reports shall be filed in duplicate in the prescribed form in the office of the recorder for the area in which the claims are located and the recorder shall forward a copy to the Minister for approval.

(2) The Minister may reject assessment work submitted for work credit if,

- (a) the assessment work has not in fact been carried out on the mining claim;
- (b) the work report is incomplete;
- (c) the data presented in the work report is not in a comprehensible form;
- (d) the work report is not accompanied by adequate technical support data as required by this Regulation;
- (e) the cost claimed for assessment work credit exceeds the industry standard for similar work;
- (f) the holder of the mining claim fails to verify the expenses claimed within thirty days of a written request for verification being made by the Minister;
- (g) the assessment work is a duplication of previous work performed and reported on the same mining claim; or
- (h) the data presented in the work report consists predominantly of expressions of opinion or compilations of previously published material and previously accepted documents.

(3) If work claimed is rejected for assessment work credit under subsection (2), the Minister shall notify the holder of the mining claim in writing of the details of the deficiencies.

(4) If within forty-five days after the date of the notice the holder of the mining claim files with the recorder a revised work report and the work credit requirements of this Regulation are met, the revised report shall be deemed to have been filed on the date the rejected work report was filed.

(5) If no notice of deficiency is given by the Minister within ninety days of the work report being filed, the assessment work described in the

work report shall be deemed to be approved for assessment work credit. O. Reg. 116/91, s. 6.

7.—(1) A holder of a mining claim, a person holding a beneficial interest in a mining claim or a person who is an optionee of record of a mining claim may perform on one or more unpatented, patented or leased mining claims any of the assessment work required to be performed in respect of contiguous unpatented mining claims recorded in the holder's name or in which the person holds a beneficial interest or is the optionee of record.

(2) Assessment work that is filed for assignment to contiguous unpatented claims shall be accompanied by a certified abstract of the holder's title for the patented or leased claim or proof of a beneficial interest in the claim.

(3) The maximum value of the assessment work that may be assigned from any 16 hectare unit of an unpatented claim to any contiguous unpatented claim under this section is \$12,000 in any assessment year.

(4) The maximum value of assessment work that may be assigned from any patented or leased mining claim in any assessment year is \$750 per hectare up to a maximum of \$192,000. O. Reg. 116/91, s. 7.

8.—(1) Regional surveys and prospecting work performed on Crown land before the recording of a mining claim are eligible for assessment work credit if,

- (a) they were performed no earlier than twelve months before the recording date; and
- (b) a claim for the credit is submitted within one year following the recording date.

(2) Regional surveys and prospecting are eligible for assessment work credit at a rate of 100 per cent of the costs in relation to any mining claim subsequently staked and recorded in the area covered by the survey or prospecting and at a rate of 25 per cent in relation to any other Crown land which is part of the survey or prospecting.

(3) To obtain assessment work credit, the regional survey must be submitted in its entirety and must be accompanied by a survey report substantially in the form outlined in section 11.

(4) Prospecting work carried out in conformity with the Act and performed before the recording of a mining claim is eligible for assessment work credit at a rate of \$150 per day if a report, a plan and assay results are submitted substantially in the form outlined in section 9. O. Reg. 116/91, s. 8.

9. Prospecting work performed after the recording of a mining claim is eligible for assessment work credit at a rate of \$150 per day if the holder of the claim submits,

- (a) a report describing in detail the nature and content of the work and the observations made during performance of the work;
- (b) a plan of the mining claim drawn in ink on durable paper at a scale of between 1: 100 and 1: 5,000 showing,
 - (i) the location of all traverses,
 - (ii) the location of all outcrops investigated and rock types, mineralization and trenches,
 - (iii) any established survey lines and stations,
 - (iv) any roads, trails and any other distinctive topographic features,
 - (v) a graphic or bar scale and the north direction and indicating whether the bearing is astronomic or magnetic,
 - (vi) the dates on which the work was performed,

- (vii) the licence numbers and printed names and signatures of persons who performed the work,
- (viii) the mining claim clearly identified by outline and claim post locations, and
- (ix) the character of the overburden including boulders, clay, gravel, sand and the distribution of swamp, muskeg and forest cover areas along all lines traversed particularly where no outcrop is found and identified; and

(c) within sixty days after the submission of the report referred to in clause (a), the location, sample numbers and results of all sampling and assays performed. O. Reg. 116/91, s. 9.

10.—(1) The types of physical work eligible for assessment work credit are,

- (a) manual and mechanical overburden stripping;
- (b) bedrock trenching;
- (c) shaft sinking;
- (d) driving adits;
- (e) open cutting;
- (f) digging pits;
- (g) recutting claim lines once every five years; and
- (h) dewatering of underground workings.

(2) Physical work submitted for assessment work credit shall be supported by,

- (a) a brief report of work outlining,
 - (i) the nature of the rocks and mineralization exposed,
 - (ii) all assay results of any samples taken,
 - (iii) the type of equipment used,
 - (iv) the hours and dates that the equipment was used and the operator worked and the hourly rates for each, and
 - (v) where there is any recutting of claim lines, the location of claim lines, claim posts and geographic, geologic and exploration features; and
- (b) a legible, uncoloured, detailed map of the workings on durable paper at a scale between 1: 5,000 and 1: 10 suitable for photographic reproduction, showing,
 - (i) the location of trenches and stripping areas in relation to the mineral disposition boundaries, claim lines, claim posts and topography, and any survey, grid or co-ordinate lines, survey stations, roads or trails,
 - (ii) the dimension of workings, trenches and stripping,
 - (iii) the plan of sampling, and
 - (iv) a graphic or bar scale and the north direction and indicating whether the bearing is astronomic or magnetic.

(3) Line cutting and ground control surveys are eligible for assessment work credit only if accompanied by a report of a geological, geophysical, geochemical or other survey performed on the lines.

(4) Subsequent line cutting and ground control surveys are not eligible for assessment work credit unless new lines have been cut or the existing grid re-established for that survey.

(5) The grid or picket lines on the surveys shall be established and located with respect to base lines, claim posts and readily identifiable topographic features. O. Reg. 116/91, s. 10.

11.—(1) A geotechnical survey relating to geological, geochemical, geophysical, airborne geophysical or regional survey work is eligible for assessment work credit if a typewritten survey report is submitted on good quality paper suitable for reproduction.

(2) The survey report shall,

- (a) contain a table of contents and a list of illustrations;
- (b) identify the mining claims on which the survey was performed;
- (c) give the names and addresses of the holders of the mining claims covered by the survey;
- (d) identify the location of and means of access to the mining claims;
- (e) contain a key map showing the claims surveyed in relation to identifiable topographic features and township boundaries or established survey lines, stations or markers;
- (f) identify the author of the report;
- (g) give the names and addresses of the persons who supervised the survey;
- (h) give the dates during which the survey work was performed;
- (i) give a summary of the exploration and development work performed on the mining claim;
- (j) include all assays and analyses with appropriate certificates;
- (k) give an interpretation of anomalous values and are commendation for further exploration;
- (l) provide a statement of qualifications of the person who conducted the survey and drafted the report;
- (m) give the date of completion of the report and the signature of the author; and
- (n) contain a list of references or a bibliography.

(3) Any geotechnical survey report submitted for assessment work credit shall be accompanied by an uncoloured map or plan on durable paper or transparencies and which,

- (a) utilizes a scale between 1: 5,000 and 1: 10 or, in the case of a regional survey, between 1: 250,000 and 1: 500;
- (b) shows traverse lines that have been run;
- (c) shows a graphic or bar scale and the north direction and indicating whether the bearing is astronomic or magnetic;
- (d) shows lakes, streams and other notable topographic features, and railways, roads, trails, power lines, pipelines and buildings;
- (e) shows claim posts and boundary lines, township boundary lines, lot and concession lines, base lines, picket lines, traverse lines;
- (f) shows survey stations and markers in relation to topographic features;

- (g) shows any grid or co-ordinate lines established for reference purposes;
- (h) shows the mining claim numbers of all mining claims covered by the survey; and
- (i) shows the printed name of the author of the accompanying report.

(4) In areas where suitable base maps are not available, the key map may be plotted on aerial photographic mosaics at a scale between 1: 50,000 and 1: 5,000. O. Reg. 116/91, s. 11.

12.—(1) A geological survey report submitted for assessment work credit shall, in addition to the requirements of subsection 11 (2),

- (a) contain a table of the rock types, lithologies and formations with their descriptions and illustrated on any accompanying maps and illustrations;
- (b) describe the regional geology;
- (c) give descriptions of significant geological structures;
- (d) identify the character, attitudes and dimensions of any veins, mineralization and alteration found during the survey; and
- (e) identify the sources of geological data contained in the report if obtained from sources other than the survey being reported.

(2) Any geological map or plan submitted in connection with a geological survey report shall, in addition to the requirements of subsection 11 (3),

- (a) contain a table of rock types, lithologies and formations, with a descriptive list of the symbols used;
- (b) show outcrops designated by a letter or number corresponding to the rock type, lithologies and formations;
- (c) show the character of the overburden including boulder, clay, gravel or sand, and the distribution of swamp, muskeg and forest cover areas along all lines traversed, particularly where no outcrop is found and identified;
- (d) show all observed and interpreted folds, schistosity, actual and indicated faults, attitudes of flows and stratified rocks, including strikes and dips, and the direction in which they face, locations and attitudes of actual and interpreted contacts and other structural features;
- (e) show zones of shearing, alteration or mineralization and veins;
- (f) show the location of trenches, test pits, shafts and adits; and
- (g) show the location, direction and dip of drill holes.

(3) Where available, the dimensions and grade of the mineral deposit, assay plans and analyses shall be submitted with the geological survey report. O. Reg. 116/91, s. 12.

13.—(1) Any geochemical survey report submitted for assessment work credit shall, in addition to the requirements of subsection 11 (2),

- (a) disclose and identify any geochemical data obtained in the report which has been obtained from any source other than the survey;
- (b) provide pertinent geological, topographic, ground water and surface water data with particular emphasis on the material being sampled;
- (c) describe the type, location and amount of the samples collected and the tools used in collecting the samples;

(d) in the case of soil samples, indicate the depth or range of depth below the surface and the particular soil horizon sampled;

(e) in the case of samples of living vegetation, plant, humus or peat, describe the samples as specifically and completely as possible including giving the plant name, species, part of the plant sampled and location of the material sampled;

(f) if only a part of the sample is to be used for analysis, indicate the procedure used to obtain this part of the sample or particular size fraction, and in any biochemical report indicate the sample preparation technique;

(g) give the numbers of the samples and their analytical results, and state whether the analysis was made in the field, a field laboratory or a commercial laboratory and indicate the name of the laboratory;

(h) give the weight of the sample used, extraction method, analytical method and elements determined;

(i) tabulate separately the data obtained from duplicate sampling and analysis in order to estimate data variability;

(j) indicate the total number of sample stations and kilometres of line traversed;

(k) give an analysis of the geochemical data by mathematical or other means in order to establish background, threshold and anomalous values;

(l) describe the possible causes of background and threshold and anomalous values, relating the anomalous values to known or speculated causes; and

(m) give an evaluation of the significance of anomalous values together with recommendations for further exploration.

(2) Any geochemical map or plan submitted in connection with a geochemical survey report shall, in addition to the requirements of subsection 11 (3),

(a) show all station points and values of the analyses obtained and units measured;

(b) provide a legend or explanation to identify the units plotted with clear definitions of all abbreviations used on the map;

(c) show profiled or contours as determined from the analytical results of the survey and give the vertical scale where profiles are used; and

(d) show the printed name of the author of the related geochemical report.

(3) A geochemical survey is not eligible for assessment work credit unless all the analytical receipt results are submitted. O. Reg. 116/91, s. 13.

14.—(1) Any geophysical survey report submitted for assessment work credit shall, in addition to the requirements of subsection 11 (2),

(a) identify the name, type and model of the instrument used to perform the survey, specifying the scale constant or sensitivity;

(b) describe the method of survey and the use of the instrument and operational technique;

(c) specify the total distance of line traversed;

(d) give the background count for radiometric readings;

(e) identify the sources of any geophysical or geological data

contained in the report or shown on the accompanying illustrations which have been obtained from any source other than the survey being reported;

- (f) give an analysis of the geophysical data to better define the geometrical and physical parameters of the anomalous zones;
- (g) describe the possible causes of background and anomalous values relating the latter to known or speculated causes; and
- (h) give a brief evaluation of the significance of anomalous values and recommendations for further exploratory work.

(2) Any geophysical map or plan submitted in connection with a geophysical survey report shall, in addition to the requirements of subsection 11 (3),

- (a) show all station points, the values of readings taken and the units measured such as gammas, degrees, milliamps, milligals, milliseconds and ohm-meters, and dimensionless units such as per cent and ratios;
- (b) show basic numerical data and filtered data if available;
- (c) indicate total radiation units or radiation units from uranium, thorium or potassium separately or in combination for radiometric surveys on land;
- (d) show, where appropriate, the location of a topographic feature as a main base control point;
- (e) show profiles or contours as determined from the values obtained by the survey and give the vertical scale where profiles are used;
- (f) contain a legend or explanation indicating how the measured units in clause (a) are plotted, anomalous zones are indicated and spurious suspect readings are identified, and indicating the radiometric background count; and
- (g) contain an outcrop map where a radiometric survey has been performed. O. Reg. 116/91, s. 14.

15.—(1) Any airborne geophysical report submitted for assessment work credit shall, in addition to the requirements of subsection 11 (2),

- (a) identify the manufacturer, type and model of all instruments used in the performance of the survey specifying the scale contrast or sensitivity and the accuracy of the survey;
- (b) specify the method of ground control related to flight path recovery, ground speed and the terrain clearance of the aircraft used in the performance of the survey; and
- (c) specify the flight-line spacing, the total distance flown over the entire survey and the distance flown over the claims in respect of which the assessment work is to be credited.

(2) Any geophysical map or plan submitted in connection with an airborne geophysical survey report shall, in addition to the requirements of subsection 11 (3),

- (a) contain a base map or photomosaic showing all lakes, streams and other notable topographic features, and all railways, roads, trails, power lines, pipe lines and buildings; and
- (b) show, as appropriate, profiles or contours representing electromagnetic and magnetic responses determined from the readings obtained by the survey, stating the units measured with values indicated at convenient regular intervals along the flight lines. O. Reg. 116/91, s. 15.

diamond or core drilling, and other drilling such as percussion, reverse circulation and auger drilling, is eligible for assessment work credit if the holder of the claim submits legible drill hole logs, suitable for photographic reproduction, in duplicate, a drilling plan and a drill hole section.

(2) The drill hole logs shall,

- (a) identify the hole by number;
- (b) give the mining claim numbers on which the hole is drilled;
- (c) indicate the location of the drill hole collar in relation to the grid line co-ordinates, claim posts and identifiable geographic reference points;
- (d) indicate the angle and azimuth of the hole;
- (e) indicate the size of the core, or the diameter of the drill hole if bored other than by core drilling;
- (f) state the starting and completion dates of the drilling;
- (g) state the name of the drill contractor;
- (h) state the storage location of the core or drill sample material;
- (i) indicate the thickness of overburden in the core drilling holes;
- (j) adequately describe all geological units encountered in terms of their thickness, composition, colour, textures, structure, grain size, degree of sorting, mineralization and alteration, as appropriate;
- (k) indicate the total depth of penetration of the drill hole in bedrock and unconsolidated material;
- (l) indicate the location and type of all samples taken for assay or physical tests;
- (m) state the date of completion of the log;
- (n) contain the printed name and signature of the author of the logs; and
- (o) provide a legend of all symbols or abbreviations used in the logs.

(3) The drilling plan map shall be on durable paper, suitable for photographic reproduction, and shall,

- (a) be at a scale between 1: 5,000 and 1: 10;
- (b) contain a graphic or bar scale and show the magnetic north and the declination;
- (c) show all lakes, streams and other notable topographic features, and all relative cultural features such as railroads and hydro lines;
- (d) accurately show all claim boundaries, claim posts, township boundary lines, roads, lot and concession lines, base lines, picket lines and survey stations where identifiable, in relation to topographic features; and
- (e) show the location of drill hole collars and the numbers, angles and depths of all drill holes in relation to clauses (2)(c), (d) and (e) in such a manner that relocation of the hole is simplified.

(4) The drill hole section shall be on durable paper, suitable for photographic reproduction, and shall,

- (a) indicate the rock types or type of material intersected;

16.—(1) Exploratory drilling by core or non-core method, including

- (b) be at a scale between 1: 5,000 and 1: 10;
- (c) contain a bar or graphic scale;
- (d) give the astronomic azimuth of the hole;
- (e) show co-ordinate lines corresponding with those shown on the drilling map;
- (f) indicate the total length of the hole;
- (g) contain a legend for codes or symbols corresponding to unconsolidated materials, mineralization and structure;
- (h) show the location of the unconsolidated materials and mineralization designated by code or symbol corresponding to those mentioned in clause (g);
- (i) indicate the mining claim number on which the hole is drilled; and
- (j) show the number and angle of the drill hole.

(5) Overburden drilling designed specifically to sample unconsolidated materials is eligible for assessment work credit if the holder of the claim submits legible drill hole descriptive logs, a drilling plan map and a drill hole graphic section.

(6) The drill hole descriptive logs shall be suitable for photographic reproduction, in duplicate, and shall,

- (a) describe the stratigraphy of the materials encountered as to type of material, thickness, colour, textures, structure, grain size, degree of sorting and mineralization; and
- (b) describe the type of bedrock penetrated, if reached.

(7) The drilling plan map shall be on durable paper, suitable for photographic reproduction, and shall,

- (a) be at a scale between 1: 5,000 and 1: 10;
- (b) contain a graphic or bar scale and show the north direction indicating whether astronomic or magnetic;
- (c) show all lakes, streams and other notable topographic features, and all railways, roads, trails, power lines, pipelines and buildings;
- (d) accurately show all claim boundary lines, claim posts, township boundary lines, lot and concession lines, base line, picket lines and survey stations in relation to topographic features;
- (e) show any co-ordinate lines established for reference purposes;
- (f) show the location of the drill hole collars, the numbers and angles of all drill holes in relation to topographic features and survey, grid and co-ordinate lines; and
- (g) show survey stations and markers in such a manner that they can be located on the ground by persons unfamiliar with the area.

(8) The drill hole graphic section shall be on durable paper, suitable for photographic reproduction, and shall,

- (a) illustrate the overburden, the rock types and mineralization intersected;
- (b) contain a graphic or bar scale;
- (c) give the azimuth direction of the hole indicating whether astronomic or magnetic;

- (d) show co-ordinate lines corresponding with those shown on the drilling plan map and UTM co-ordinates if possible;
- (e) indicate the total length of the hole;
- (f) contain a legend indicating by letters, numbers or symbols the unconsolidated materials and mineralization intersected in the hole;
- (g) show the location of the unconsolidated materials and mineralization designated by letters, numbers or symbols corresponding with those in the legend mentioned in clause (f);
- (h) show the number of the mining claim on which the hole is drilled; and
- (i) show the number of the drill hole.

(9) A holder of a mining claim who performs a program of diamond drilling or overburden drilling on it is eligible for an assessment work credit, in addition to that claimed elsewhere under this section, of 4 per cent of the cost of the drilling program if the appropriate resident geologist is advised that the holder does not wish to retain the core and samples.

(10) The holder of the mining claim shall,

- (a) dispose of the core and samples in an appropriate manner under the conditions of the holder's work permit issued under the *Public Lands Act* or the *Forest Fires Prevention Act*; or
- (b) if clause (a) does not apply and the resident geologist so requests, deliver the core and samples at the holder's sole expense to the nearest core library or to another location designated by the resident geologist. O. Reg. 116/91, s. 16.

17. The results of beneficiation, geochemical testing or other special studies of assaying and analyses are eligible for assessment work credit if the results,

- (a) include a summary listing of all types of work performed, the costs involved for such work and the mining claim numbers on which the work was carried out;
- (b) where assays or analyses are reported, include the assay certificates and a plan at a scale of between 1: 5,000 and 1: 10 clearly identifying the location of each sample by number, letter or grid co-ordinate designation and showing the assay results; and
- (c) where assays or analyses are reported for core or non-core drilling, indicate the intervals in metres at which the samples were taken. O. Reg. 116/91, s. 17.

18. The following are eligible for assessment work credit:

1. Airphoto and remote imagery interpretations.
2. Downhole geophysics.
3. Metallurgical testing and bulk sampling.
4. Industrial mineral testing and marketing.
5. Underwater geophysics.
6. Microscopic studies.
7. Environmental studies.
8. Digitized base maps including Ontario Basic Mapping.
9. Applications of new methodology or presentation of previ-

ously submitted field data which contribute new information to the geotechnical data base. O. Reg. 116/91, s. 18.

19.—(1) No assessment work credit shall be given for rehabilitation work unless the Director of Mine Rehabilitation has previously approved the rehabilitation work.

(2) If the rehabilitation work submitted for assessment work credit is found to be absent, fraudulent or incomplete, the Director of Mine Rehabilitation shall notify the recorder and the Minister shall adjust the assessment work credit accordingly. O. Reg. 116/91, s. 19.

20.—(1) If the area of a mining claim exceeds by more than 15 per cent the prescribed size under subsection 94(17) of the Act or the average area of the mining claims within a perimeter survey exceeds by more than 15 per cent the prescribed size for a mining claim under subsection 108(6) of the Act, additional annual assessment work shall be performed for the excess area proportional to that of the entire claim.

(2) Money may be paid in place of the additional assessment work required under subsection (1) at double the rate required for assessment work. O. Reg. 116/91, s. 20.

21.—(1) The number of work days filed on a mining claim on the day this Regulation comes into force, up to a maximum of 200 days, shall be converted to an assessment work credit for that mining claim at the rate of \$22 for each day filed less \$400 for each assessment year passed since the claim was recorded.

(2) The amount calculated under subsection (1) shall be deemed to be excess work credits banked under subsection 4 (4).

(3) The work performed on a mining claim but unfiled on the day this Regulation comes into force may be filed after that date in accordance with this Regulation at the rate specified in subsections 4(2) and (3). O. Reg. 116/91, s. 21.

22. This Regulation comes into force on the day that section 82 of the *Mining Amendment Act, 1989* comes into force.

14/91

ONTARIO NEW HOME WARRANTIES PLAN ACT

O. Reg. 117/91.
Administration of the Plan.
Made—November 15th, 1990.
Filed—March 21st, 1991.

REGULATION TO AMEND REGULATION 726 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE ONTARIO NEW HOME WARRANTIES PLAN ACT

1. Section 19 of Regulation 726 of Revised Regulations of Ontario, 1980, as made by section 2 of Ontario Regulation 308/88, is amended by adding the following subsections:

(5) Every vendor of a new home of a type referred to in subclause 1 (d) (iii) of the Act warrants to the purchaser that in the event of a delay in occupancy of the condominium dwelling unit that is more than five days beyond,

- (a) the confirmed occupancy date fixed as set out in subsections (6) and (7); or
- (b) any extension of the confirmed occupancy date under clause (12) (a) or (b),

the vendor shall compensate the purchaser for all direct costs caused by the delay in an amount that does not exceed \$100 a day for living expenses and \$5,000 in total.

(6) Every agreement of purchase and sale in respect of a condominium dwelling unit shall contain a confirmed occupancy date or a tentative occupancy date, clearly identified as such.

(7) If the agreement of purchase and sale contains a tentative occupancy date, a confirmed occupancy date shall be established by written notice delivered to the purchaser,

- (a) not more than thirty days after the completion of the roof slab or of the roof trusses and sheathing, as the case may be, or on an earlier date or event set out in the agreement of purchase and sale; and
- (b) at least 120 days before the confirmed occupancy date.

(8) A confirmed occupancy date established under subsection (7) shall not differ from the tentative occupancy date unless the purchase agreement so permits.

(9) Where a tentative occupancy date has been given, and the vendor fails to set a confirmed occupancy date as specified in subsection (7) at least ninety days before the tentative occupancy date, the tentative occupancy date becomes the confirmed occupancy date for the purpose of calculating compensation under subsection (5).

(10) Where the vendor is able to provide occupancy before the confirmed occupancy date, the vendor warrants that occupancy before that date will not be required unless the purchaser consents in writing, and upon such consent the revised date becomes the confirmed occupancy date for the purpose of calculating compensation payable under subsection (5).

(11) Subsection (5) does not apply to a period of delay in occupancy caused by strike, fire, flood, act of God or civil insurrection.

(12) The vendor may extend the confirmed occupancy date,

- (a) by a maximum of 120 days if written notice is given to the purchaser at least sixty-five days before the confirmed occupancy date; or
- (b) by a maximum of fifteen days if written notice is given to the purchaser at least thirty-five days before the confirmed occupancy date or an extension of it under clause (a).

(13) Where a claim is made under subsection (5), compensation shall be calculated from the confirmed occupancy date or any extension of it under clause (12) (a) or (b). O. Reg. 117/91, s. 1.

2. The Regulation is further amended by adding the following sections:

24. A claim may be made under subsection 19 (5) within one year after the date of possession, if the condominium dwelling unit is occupied and the purchaser is not in default of the purchaser's obligations under the agreement of purchase and sale. O. Reg. 117/91, s. 2, *part*.

25.—(1) The warranty in subsection 19 (1) applies to purchase agreements with closing dates on or after the 1st day of September, 1988.

(2) The warranty in subsection 19 (5) applies to condominium purchase agreements entered into on or after the 1st day of April, 1991.

(3) The warranties in subsection 20 (1) and section 21 apply to purchase agreements entered into after the 30th day of June, 1988. O. Reg. 117/91, s. 2, *part*.

26. A breach of the warranties contained in section 19 is a breach of warranty for the purposes of clause 14 (1) (b) of the Act and a claim

under section 19 is limited to a claim for compensation for costs directly related to the delay. O. Reg. 117/91, s. 2, *part*.

Passed by the Directors on the 15th day of November, 1990.

R. RYAN
Chair

THOMAS COCHREN
Secretary

Confirmed by the members in accordance with the Corporations Act on the 15th day of November, 1990.

THOMAS COCHREN
Secretary

14/91

ONTARIO NEW HOME WARRANTIES PLAN ACT

O. Reg. 118/91.

Administration of the Plan.
Made—October 19th, 1989.
Filed—March 21st, 1991.

REGULATION TO AMEND

REGULATION 726 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE ONTARIO NEW HOME WARRANTIES PLAN ACT

1.—(1) Subsection 6 (3) of Regulation 726 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 308/88, is revoked and the following substituted:

(3) In the case of a home of a type referred to in subclause 1 (d) (i) and (ii) of the Act, the maximum amount payable to an owner out of the guarantee fund in respect of a claim made after August 1, 1989 under clause 14 (1) (b) or (c) of the Act is \$100,000. O. Reg. 118/91, s. 1 (1).

(2) Subsections 6 (4) and (8) of the Regulation, as remade by section 1 of Ontario Regulation 219/87, are revoked and the following substituted:

(4) In the case of a condominium dwelling unit, the maximum amount payable to an owner out of the guarantee fund in respect of a claim made after August 1, 1989 under clause 14 (1) (b) or (c) of the Act is \$100,000. O. Reg. 118/91, s. 1 (2), *part*.

(8) The maximum amount payable out of the guarantee fund in respect of a claim relating to the common elements of a condominium project is the lesser of,

- (a) \$2,500,000; or
- (b) an amount equal to \$50,000 multiplied by the number of condominium dwelling units in the condominium project. O. Reg. 118/91, s. 1 (2), *part*.

2. Subparagraphs 3 (1) and (2) of Schedule A to the Regulation, as remade by section 4 of Ontario Regulation 219/87, are revoked and the following substituted:

(1) Where a home was enrolled or an enrolment fee was payable before the 1st day of August, 1989, the enrolment fee is,

- (a) with respect to a home described in subclause 1 (d) (i) and (ii) of the Act, \$2 for each \$1,000 of the sale price of the home to the owner up to a maximum of \$1,000; or

(b) with respect to a home described in subclause 1 (d) (iii) of the Act, \$2 for each \$1,000 of the sale price of the home to the owner up to a maximum of \$1,000, plus \$50.

(2) Where a home is enrolled or an enrolment fee is payable on or after the 1st day of August, 1989, the enrolment fee is,

(a) with respect to a home described in subclause 1 (d) (i) and (ii) of the Act, \$1 for each \$1,000 of the sale price of the home to the owner up to a maximum of \$1,000; or

(b) with respect to a home described in subclause 1 (d) (iii) of the Act, \$1 for each \$1,000 of the sale price of the home to the owner up to a maximum of \$1,000, plus \$50.

Passed by the Directors on the 19th day of October, 1989.

R. RYAN
Chair

THOMAS COCHREN
Secretary

Confirmed by the members in accordance with the Corporations Act on the 19th day of October, 1989.

THOMAS COCHREN
Secretary

14/91

PESTICIDES ACT

O. Reg. 119/91.

General.
Made—March 20th, 1991.
Filed—March 21st, 1991.

REGULATION TO AMEND REGULATION 751 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE PESTICIDES ACT

1. Section 1 of Regulation 751 of Revised Regulations of Ontario, 1980, as amended by section 1 of Ontario Regulation 252/81, section 1 of Ontario Regulation 70/84 and section 1 of Ontario Regulation 27/91, is further amended by adding the following clause:

(ea) "certified agriculturist" means an agriculturist who is certified under subsection 73 (1);

2.—(1) Subsection 73 (1) of the Regulation is revoked and the following substituted:

(1) A certified agriculturist is an agriculturist who is certified within the last sixty months,

(a) to have successfully completed a course for agriculturists, which has been approved by the Director, with respect to the handling and use of pesticides on farm land; or

(b) to possess experience that in the Director's opinion makes it unnecessary for the agriculturist to take the course described in clause (a). O. Reg. 119/91, s. 2 (1).

(2) Section 73 of the Regulation is amended by adding the following subsections:

(3) An agriculturist who performs a land extermination on the farm land on which he or she is engaged in agricultural or forestry production

by means of a Schedule 4 or 6 pesticide is exempt from subsection 5 (1) of the Act for that extermination.

(4) A certified agriculturist who performs a land extermination on the farm land on which he or she is engaged in agricultural or forestry production by means of a Schedule 2, 3 or 5 pesticide is exempt from subsection 5 (1) of the Act for that extermination.

(5) On or before the 31st day of March, 1996, an agriculturist who performs a land extermination on the farm land on which he or she is engaged in agricultural or forestry production by means of a Schedule 3 pesticide is exempt from subsection 5 (1) of the Act for that extermination.

(6) On or before the 31st day of March, 1996, an agriculturist who performs a land extermination on the farm land on which he or she is engaged with a certified agriculturist in agricultural or forestry production by means of a Schedule 2 or 5 pesticide is exempt from subsection 5 (1) of the Act for that extermination.

(7) Every certified agriculturist shall ensure that the use, storage, transportation and disposal of pesticides on the farm land on which the certified agriculturist is engaged in agricultural or forestry production is carried out in accordance with the Act and this Regulation. O. Reg. 119/91, s. 2 (2).

3.—(1) Subsection 74 (1) of the Regulation is amended by striking out "agriculturist" in the first line and substituting "certified agriculturist".

(2) Subsection 74 (3) of the Regulation is revoked.

4. Subclause 92 (b) (ii) of the Regulation is amended by striking out "agriculturist" in the first line and substituting "certified agriculturist".

5. Subclause 93 (a) (ii) of the Regulation is amended by striking out "agriculturist" in the first line and substituting "certified agriculturist".

6. Section 97 of the Regulation is amended by adding the following subsection:

(5) Where the sale or transfer described in subsection (1) is to a certified agriculturist, the record that is required to be kept shall set out the certificate number of the certified agriculturist. O. Reg. 119/91, s.6.

7. This Regulation comes into force on the 1st day of April, 1991.

14/91

INSURANCE ACT

O. Reg. 120/91.

Order under Paragraph 1 of subsection 85 (2) of the Act—Rates of Interest.
Made—March 20th, 1991.
Filed—March 21st, 1991.

REGULATION TO AMEND REGULATION 532 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE INSURANCE ACT

1.—(1) Item 40 of the Schedule to Regulation 532 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 559/81, is revoked and the following substituted:

40	Gerling Global Life Insurance Company	9.0% ****	Single premium adjustable whole life non-participating plan issued on or after January 1, 1980 and non-fixed premium Infiternum plan issued on or after January 1, 1987.
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(2) Item 47 of the Schedule, as made by section 1 of Ontario Regulation 232/85, is revoked and the following substituted:

47	Gerling Global Life Insurance Company	9.5% ****	Non-fixed annual premium adjustable whole non-participating insurance policies issued on or after January 1, 1981 and non-fixed premium Lifemaster plan issued on or after January 1, 1985.
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(3) Item 60 of the Schedule, as remade by section 1 of Ontario Regulation 99/88, is revoked and the following substituted:

60	Union of Canada Life Insurance	Lesser of 10% or rate assumed in premium basis	Deposits made into Deposit Administration Contracts on or after January 1, 1987 and prior to January 1, 1991.
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(4) Items 62 and 64 of the Schedule, as made by section 1 of Ontario Regulation 99/88, are revoked and the following substituted:

62	Union of Canada Life Insurance	Lesser of 10% or rate assumed in premium basis	Immediate annuities and Annuities Certain issued on or after January 1, 1986 and prior to January 1, 1991.
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64	Union of Canada	6.5%	Whole life plan issued on or after January 1, 1987
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Life Insurance

(special plans such as Ultra Life, select, etc.).

(5) Items 65 and 66 of the Schedule, as remade by section 1 of Ontario Regulation 159/90, are revoked and the following substituted:

65	Security Life Insurance Company	11.66%	Life Annuities issued on or after July 22, 1986 and before January 1, 1991.
66	Security Life Insurance Company	11.66%	Registered Retirement Income Fund (RRIF) policies and other similar plans issued on or after July 22, 1986 and before January 1, 1991.

(6) Items 69, 70 and 71 of the Schedule, as remade by section 1 of Ontario Regulation 159/90, are revoked and the following substituted:

69	Annuity Life Insurance Company	11.0% for each year up to 2010; and 6% thereafter	Single premium immediate annuities issued after December 31, 1987 and before January 1, 1991.
70	Annuity Life Insurance Company	Lesser of, i. 11.36%, or ii. the rate assumed in premium basis plus 0.1%	Registered Retirement Income Fund (RRIF) policies issued after December 31, 1987 and before January 1, 1991.
71	Annuity Life Insurance Company	Lesser of, i. 11.25%, or ii. the rate specified in policy	Registered Retirement Savings Plan policies issued after December 31, 1987 and before January 1, 1991.
72	Gerling Global Life Insurance Company	8.5% **** for 5 years then reducing to 5.5% over next 31 years	Fixed annual premium Infiterm plan issued on or after January 1, 1988.
73	Gerling Global Life Insurance Company	9.5% **** for 5 years then reducing to 6.5% over next 31 years	Fixed annual premium ten year renewable and convertible term plan issued on or after January 1, 1986.
74	Union of Canada Life Insurance	6.0%	Whole life plan (participating and non-participating) issued on or after January 1, 1990.

1941

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1943

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1949

Publications under the Regulations Act

Publications en vertu de la Loi sur les règlements

1991—04—13

BUSINESS NAMES ACT, 1990**O. Reg. 121/91.**

General.

Made—March 20th, 1991.

Filed—March 25th, 1991.

LOI DE 1990 SUR LES NOMS COMMERCIAUX**Règl. de l'Ont. 121/91**

Dispositions générales

pris—le 20 mars 1991

déposé—le 25 mars 1991

REGULATION MADE UNDER THE
BUSINESS NAMES ACT, 1990

GENERAL

Registration for an Individual

1.—(1) An individual must complete Form 1 in full to register a name or to amend, renew or request the cancellation of the registration.

(2) The name of the individual must be set out on the form to show the first given name, followed by the initial of the second given name, if any, followed by the surname.

(3) The date of birth of an individual who is under eighteen years of age must be set out on the form. O. Reg. 121/91, s. 1.

Registration for a Partnership

2.—(1) Persons associated in a partnership must complete Form 1 in full to register a name or to amend, renew or request the cancellation of the registration.

(2) The name of each partner who is an individual must be set out on the form to show the first given name, followed by the initial of the second given name, if any, followed by the surname.

(3) The date of birth of each partner who is an individual under eighteen years of age must be set out on the form.

(4) The following information must be set out on the form for each partner that is a corporation:

1. The name and Ontario corporation number, if any, of the corporation.
2. The address for service of the corporation. O. Reg 121/91, s. 2.

3.—(1) If more than ten persons are associated in a partnership, the partnership may register its name or may amend, renew or request the cancellation of the registration in accordance with this section.

(2) Subject to subsection (3), one or more partners, to be known as the designated partner or partners, must complete Form 1 in full on behalf of the partnership and provide the information required by subsections 2 (2), (3) and (4) to register its name or to amend, renew or request the cancellation of the registration.

(3) If the requirements set out in subsections (4) to (8) are met, the information required by items 8, 9 and 10 of Form 1 may be omitted for persons who are associated in the partnership other than the designated partner.

RÈGLEMENT PRIS EN APPLICATION
DE LA LOI INTITULÉE *BUSINESS NAMES ACT, 1990*
(« LOI DE 1990 SUR LES NOMS COMMERCIAUX »)

DISPOSITIONS GÉNÉRALES

Enregistrement d'un particulier

1 (1) Le particulier doit remplir intégralement la formule 1 pour enregistrer un nom ou pour modifier, renouveler ou demander la révocation de l'enregistrement.

(2) Le nom du particulier doit être indiqué sur la formule en inscrivant le prénom, suivi de l'initiale du deuxième nom, le cas échéant, puis du nom de famille.

(3) La date de naissance d'un particulier de moins de dix-huit ans doit être indiquée sur la formule. Règl. de l'Ont. 121/91, art. 1.

Enregistrement d'une société en nom collectif

2 (1) Les personnes qui se sont associées dans le cadre d'une société en nom collectif doivent remplir intégralement la formule 1 pour enregistrer une raison sociale ou pour modifier, renouveler ou demander la révocation de l'enregistrement.

(2) Le nom de chaque associé qui est un particulier doit être indiqué sur la formule en inscrivant le prénom, suivi de l'initiale du deuxième nom, le cas échéant, puis du nom de famille.

(3) La date de naissance de chaque associé qui est un particulier de moins de dix-huit ans doit être indiquée sur la formule.

(4) Les renseignements suivants doivent être indiqués sur la formule dans le cas de chaque associé qui est une personne morale :

1. Le nom et le numéro matricule, le cas échéant, de la personne morale.
2. Le domicile élu de la personne morale. Règl. de l'Ont. 121/91, art. 2.

3 (1) Si le nombre de personnes qui se sont associées dans le cadre d'une société en nom collectif est supérieur à dix, la société peut enregistrer sa raison sociale ou modifier, renouveler ou demander la révocation de l'enregistrement conformément au présent article.

(2) Sous réserve du paragraphe (3), un ou plusieurs associés connus sous le nom d'associés désignés doivent remplir la formule 1 au complet au nom de la société en nom collectif et fournir les renseignements exigés aux paragraphes 2 (2), (3) et (4) pour enregistrer la raison sociale de cette dernière ou pour modifier, renouveler ou demander la révocation de l'enregistrement.

(3) Si les exigences énoncées aux paragraphes (4) à (8) sont satisfaites, les renseignements prévus aux points 8, 9 et 10 de la formule 1 sont facultatifs pour les personnes associées dans le cadre de la société en nom collectif qui ne sont pas des associés désignés.

(4) A designated partner must maintain at the principal place of business in Ontario of the partnership,

- (a) a record of those persons associated in the partnership who carry out the business of the partnership in Ontario, the information necessary to complete items 8 and 9 of Form 1 respecting each of them and the date on which each of them became associated in the partnership;
- (b) a record of those persons associated in the partnership on the 1st day of May, 1991, who carried on the business of the partnership in Ontario and who subsequently left the partnership, that sets out the period during which each person was associated in the partnership;
- (c) a record of the persons who become associated in the partnership after the 1st day of May, 1991, who carried on the business of the partnership in Ontario and who subsequently left the partnership, that sets out the period during which each person was associated in the partnership.

(5) A designated partner may delete from the records information concerning a person who has left the partnership once six years have elapsed after the departure.

(6) Upon request and without charge, any partner must permit any person to inspect the records during the normal business hours of the partnership and to make copies or take extracts from them.

(7) Upon request and without charge, any partner must provide any person with a copy of the records.

(8) Upon delivery of a written notice from the Registrar, any partner must provide a copy of the records, within the time stated in the notice, to the Registrar or to such other person as the notice may specify. O. Reg. 121/91, s. 3.

4.—(1) An amendment of a registration for a partnership may be signed by one partner on behalf of the partnership.

(2) An amendment that indicates a change of persons associated in the partnership must be signed by,

- (a) all of the persons associated in the partnership, if the registration was made under section 2; or
- (b) a designated partner on behalf of the partnership, if the registration was made under section 3. O. Reg. 121/91, s. 4.

Registration for a Corporation

5. A corporation must complete Form 2 in full to register a name or to amend, renew or request the cancellation of the registration. O. Reg. 121/91, s. 5.

Duties of the Registrar

6.—(1) Upon payment of the applicable fee and receipt of the applicable form, the Registrar shall register a name.

(2) Upon payment of the applicable fee, if any, and receipt of the applicable form, the Registrar shall amend, renew or cancel the registration of a name. O. Reg. 121/91, s. 6.

7.—(1) Upon payment of the applicable fee, the Registrar shall issue to any person who makes a request a certificate stating that a name is not registered.

(2) Upon payment of the applicable fee, the Registrar shall issue to any person who makes a request a copy, or a certified copy, of the record with respect to any name registered. O. Reg. 121/91, s. 7.

(4) Les associés désignés doivent tenir les dossiers suivants à l'établissement principal de la société en nom collectif en Ontario :

- a) le registre concernant les personnes associées dans le cadre de la société en nom collectif qui exploitent l'entreprise de la société en Ontario, les renseignements nécessaires pour remplir les points 8 et 9 de la formule 1 à leur sujet ainsi que la date à laquelle chacune d'entre elles s'est associée dans le cadre de la société en nom collectif;
- b) le registre concernant les personnes associées dans le cadre de la société en nom collectif le 1^{er} mai 1991 qui ont exploité l'entreprise de celle-ci en Ontario et qui l'ont quittée par la suite, et indiquant la durée d'association de chacune d'entre elles avec la société en nom collectif;
- c) le registre concernant les personnes qui se sont associées dans le cadre de la société en nom collectif après le 1^{er} mai 1991, qui ont exploité l'entreprise de celle-ci en Ontario et qui l'ont quittée par la suite, et indiquant la durée d'association de chacune d'entre elles avec la société en nom collectif.

(5) Les associés désignés peuvent radier des registres les renseignements concernant les personnes qui ont quitté la société en nom collectif, dès qu'un délai de six ans s'est écoulé après leur départ.

(6) Tout associé doit, sur demande et sans frais, permettre à toute personne d'examiner les registres pendant les heures normales de bureau de la société en nom collectif, d'en faire des copies ou d'en tirer des extraits.

(7) Tout associé doit, sur demande et sans frais, fournir à toute personne une copie des registres.

(8) Tout associé à qui est remis un avis écrit du registrateur doit fournir une copie des registres, dans le délai imparti dans cet avis, au registrateur ou à l'autre personne dont le nom est précisé dans l'avis. Règl. de l'Ont. 121/91, art. 3.

4 (1) La modification de l'enregistrement d'une société en nom collectif peut être signée par un associé au nom de la société en nom collectif.

(2) La modification qui indique un changement des personnes associées dans le cadre de la société en nom collectif doit être signée par :

- a) toutes les personnes associées dans le cadre de la société en nom collectif, si l'enregistrement a été fait aux termes de l'article 2;
- b) les associés désignés au nom de la société en nom collectif, si l'enregistrement a été fait aux termes de l'article 3. Règl. de l'Ont. 121/91, art. 4.

Enregistrement d'une personne morale

5 La personne morale doit remplir intégralement la formule 2 pour enregistrer un nom ou pour modifier, renouveler ou demander la révocation de l'enregistrement. Règl. de l'Ont. 121/91, art. 5.

Fonctions du registrateur

6 (1) Le registrateur enregistre le nom dès qu'il reçoit les droits exigibles et la formule applicable.

(2) Le registrateur modifie, renouvelle ou révoque l'enregistrement du nom dès qu'il reçoit les droits exigibles, le cas échéant, et la formule applicable. Règl. de l'Ont. 121/91, art. 6.

7 (1) Le registrateur délivre à la personne qui en fait la demande un certificat indiquant qu'un nom n'a pas été enregistré dès qu'il reçoit les droits exigibles.

(2) Le registrateur délivre à la personne qui en fait la demande la copie ou la copie certifiée conforme du dossier concernant le nom enregistré dès qu'il reçoit les droits exigibles. Règl. de l'Ont. 121/91, art. 7.

Custody and Destruction of Records

Garde et destruction des dossiers

8. Sections 9 and 10 apply with respect to records maintained under the Act and records maintained by the Registrar for declarations filed under the *Limited Partnerships Act*. O. Reg. 121/91, s. 8.

8 Les articles 9 et 10 s'appliquent aux dossiers qui sont tenus aux termes de la Loi et aux dossiers que tient le registraire en ce qui concerne les déclarations déposées aux termes de la loi intitulée *Limited Partnership Act* (« Loi sur les sociétés en commandite »). Règl. de l'Ont. 121/91, art. 8.

9. The Registrar may authorize the destruction of documents that form the record with respect to any name registered if the Registrar has microfilmed the documents. O. Reg. 121/91, s. 9.

9 Le registraire peut autoriser la destruction des documents qui constituent le dossier relatif au nom enregistré s'il a mis les documents sur microfilm. Règl. de l'Ont. 121/91, art. 9.

10.—(1) The Registrar may segregate the record with respect to any name registered when the registration expires or is cancelled. The Registrar may authorize the destruction of the record when five years have elapsed after the expiry or cancellation.

10 (1) Le registraire peut mettre à part le dossier concernant le nom enregistré lorsque l'enregistrement vient à expiration ou est révoqué. Le registraire peut autoriser la destruction du dossier dès que cinq ans se sont écoulés après l'expiration ou la révocation.

(2) When a registration is renewed, the Registrar may segregate the record with respect to the registration as it existed before the renewal. The Registrar may authorize the destruction of the segregated portion of the record when five years have elapsed after the renewal.

(2) Lors du renouvellement de l'enregistrement, le registraire peut mettre à part l'ancien dossier concernant l'enregistrement. Le registraire peut autoriser la destruction de la partie du dossier qui a été mise à part dès que cinq ans se sont écoulés après le renouvellement.

(3) For the purposes of subsection 8 (1) of the Act and section 7, a record that has been segregated shall be deemed not to exist. O. Reg. 121/91, s. 10.

(3) Pour l'application du paragraphe 8 (1) de la Loi et de l'article 7, le dossier qui a été mis à part est réputé inexistant. Règl. de l'Ont. 121/91, art. 10.

Fees

Droits

11.—(1) The following fees are payable in respect of registrations:

11 (1) Les droits exigibles suivants sont applicables aux enregistrements :

1. \$50 for registration of a name and for a certified copy of the record with respect to any name registered.
2. \$50 for renewal of a registration and a certified copy of the record with respect to any name registered.

1. 50 \$ pour l'enregistrement d'un nom et pour une copie certifiée conforme du dossier concernant le nom enregistré.
2. 50 \$ pour le renouvellement d'un enregistrement et une copie certifiée conforme du dossier concernant le nom enregistré.

(2) The following fees are payable for the documents indicated:

(2) Les droits exigibles suivants s'appliquent aux documents indiqués :

1. \$21 for a certificate stating that a name is not registered.
2. \$21 for certification of the record with respect to any name registered.
3. \$6 for a copy of the record with respect to any name registered, if the name was registered within five years before the copy is requested.
4. \$30 for a copy of the record with respect to any name registered, if the name was registered five years or more but less than ten years before the copy is requested.
5. 60 cents per page of text, stored on microfilm, of the registrations filed on a particular day, if the request for the copies is made in advance and if no search is required for the documents. O. Reg. 121/91, s. 11.

1. 21 \$ pour le certificat indiquant qu'un nom n'est pas enregistré.
2. 21 \$ pour faire certifier le dossier concernant un nom enregistré.
3. 6 \$ pour la copie d'un dossier concernant un nom enregistré, si la copie est demandée dans les cinq ans de l'enregistrement du nom.
4. 30 \$ pour la copie d'un dossier concernant un nom enregistré, si la copie est demandée au moins cinq ans mais moins de dix ans après l'enregistrement du nom.
5. 0,60 \$ par page, sur microfilm, du texte des enregistrements déposés un jour précis, si la copie est demandée à l'avance et qu'il n'est pas nécessaire de faire une recherche pour retrouver les documents. Règl. de l'Ont. 121/91, art. 11.

Exemptions from Section 2 of the Act

Non-application de l'article 2 de la Loi

12.—(1) Subsection 2 (6) of the Act does not apply with respect to corporations carrying on business in Ontario, or identifying themselves to the public in Ontario, in any form of partnership or business association,

12 (1) Le paragraphe 2 (6) de la Loi ne s'applique pas à la personne morale qui exploite une entreprise en Ontario ou qui s'identifie publiquement en Ontario en tant qu'associée dans une société en nom collectif ou dans une association d'entreprises :

- (a) if the partnership or association consists of at least two corporations;
- (b) if the name of the partnership or association is registered under the Act; and
- (c) if the partnership or association complies with subsection (2).

- a) si la société en nom collectif ou l'association regroupe au moins deux personnes morales;
- b) si le nom de la société en nom collectif ou de l'association est enregistré aux termes de la Loi;
- c) si la société en nom collectif ou l'association se conforme au paragraphe (2).

(2) the name of the partnership or business association, together with the words "Registered Name", "nom enregistré", "Reg'd Name" or

(2) Le nom de la société en nom collectif ou de l'association d'entreprises, ainsi que les mots « Registered Name », « nom en-

“nom enr.” must be set out in all contracts, invoices, negotiable instruments and orders involving goods or services issued or made by the association or partnership. O. Reg. 121/91, s. 12.

Transitional Provisions

13.—(1) Subsection 2 (6) of the Act does not apply to a corporation that, on the 30th day of April, 1991, was exempt from subsection 2 (4) of the *Corporations Information Act* if the corporation complies with subsection (2).

(2) The name of the corporation that is registered under section 2 of the *Corporations Information Act*, together with the words “Reg’d Style Name” must be set out in all contracts, invoices, negotiable instruments and orders involving goods or services issued or made by the corporation.

(3) This section is revoked on the 2nd day of May, 1994. O. Reg. 121/91, s. 13.

14.—(1) Section 2 of the Act does not apply to persons associated in partnership on the 30th day of April, 1991 who were not required to file a declaration under the *Partnerships Registration Act* in respect of the partnership.

(2) Section 2 of the Act does not apply to an individual who, on the 30th day of April, 1991, carried on business or identified his or her business to the public under a name other than his or her own name if the individual was not required to file a declaration under the *Partnerships Registration Act* in respect of the name.

(3) This section is revoked on the 1st day of December, 1991. O. Reg. 121/91, s. 14.

15.—(1) Subject to subsection (2), section 2 of the Act does not apply to persons associated in partnership on the 30th day of April, 1991 who were not required to file a declaration under the *Partnerships Registration Act* in respect of the partnership on or before that date but who were required to file a declaration within sixty days after that date.

(2) Section 2 of the Act applies to a person described in subsection (1) on the date on which the person would have been required to file a declaration in respect of the partnership under the *Partnerships Registration Act*.

(3) This section is revoked on the 1st day of July, 1991. O. Reg. 121/91, s. 15.

Commencement

16. This Regulation comes into force on the 1st day of May, 1991.

registré », « Reg’d Name » ou « nom enr. » doivent figurer dans tous les contrats, factures, effets de commerce et commandes de marchandises ou de services émis ou faits par l’association ou la société en nom collectif. Règl. de l’Ont. 121/91, art. 12.

Dispositions transitoires

13 (1) Le paragraphe 2 (6) de la Loi ne s’applique pas à la personne morale qui, le 30 avril 1991, était soustraite à l’application du paragraphe 2 (4) de la loi intitulée *Corporations Information Act* (« *Loi sur les renseignements exigés des personnes morales* ») si elle se conforme au paragraphe (2).

(2) Le nom de la personne morale qui est enregistré aux termes de l’article 2 de la loi intitulée *Corporations Information Act* (« *Loi sur les renseignements exigés des personnes morales* »), ainsi que les mots « Reg’d Style Name » doivent figurer dans tous les contrats, factures, effets de commerce et commandes de marchandises ou de services émis ou faits par la personne morale.

(3) Le présent article est abrogé le 2 mai 1994. Règl. de l’Ont. 121/91, art. 13.

14 (1) L’article 2 de la Loi ne s’applique pas aux personnes associées dans le cadre d’une société en nom collectif le 30 avril 1991 qui n’étaient pas tenues de déposer, pour la société, une déclaration aux termes de la loi intitulée *Partnerships Registration Act* (« *Loi sur l’enregistrement des sociétés en nom collectif* »).

(2) L’article 2 de la Loi ne s’applique pas au particulier qui, le 30 avril 1991, exploitait une entreprise ou l’identifiait publiquement sous un nom autre que son propre nom, si ce particulier n’était pas tenu de déposer une déclaration aux termes de la loi intitulée *Partnerships Registration Act* (« *Loi sur l’enregistrement des sociétés en nom collectif* »).

(3) Le présent article est abrogé le 1^{er} décembre 1991. Règl. de l’Ont. 121/91, art. 14.

15 (1) Sous réserve du paragraphe (2), l’article 2 de la Loi ne s’applique pas aux personnes associées dans le cadre d’une société en nom collectif le 30 avril 1991 qui n’étaient pas tenues de déposer à cette date ou avant celle-ci, pour la société, une déclaration aux termes de la loi intitulée *Partnerships Registration Act* (« *Loi sur l’enregistrement des sociétés en nom collectif* »), mais qui étaient tenues d’en déposer une dans les soixante jours qui suivent cette date.

(2) L’article 2 de la Loi s’applique aux personnes décrites au paragraphe (1) à la date à laquelle elles auraient été tenues de déposer une déclaration pour leurs sociétés respectives aux termes de la loi intitulée *Partnerships Registration Act* (« *Loi sur l’enregistrement des sociétés en nom collectif* »).

(3) Le présent article est abrogé le 1^{er} juillet 1991. Règl. de l’Ont. 121/91, art. 15.

Entrée en vigueur

16 Le présent règlement entre en vigueur le 1^{er} mai 1991.

<p>Ministry of Consumer and Commercial Relations Ministère de la Consommation et du Commerce</p> <p>REGISTRATION Under the Business Names Act - Sale Partnership ENREGISTREMENT en vertu de la Loi sur les noms commerciaux / (Entreprise personnelle / société en nom collectif)</p>	<p>1. Business name / Nom commercial</p> <p>2. Mailing address / Adresse postale</p> <p>3. Address of principal place of business in Ontario / Adresse de l'établissement principal en Ontario</p>	<p>MINISTRY USE ONLY / RÉSERVÉ AU MINISTÈRE</p> <p>4. Registration type / Type d'enregistrement</p> <p>A <input type="checkbox"/> New / Nouvel</p> <p>B <input type="checkbox"/> Renewal / Renouvellement</p> <p>C <input type="checkbox"/> Amendment / Modification</p> <p>D <input type="checkbox"/> Cancellation / Révocation include date of last use of name: / Nom employé pour la dernière fois le</p>
<p>5. Date of first use of name (month, day, year) Nom employé pour la première fois le (jour, mois, année)</p>	<p>6. Activity carried on / Activité exercée</p>	<p>MINISTRY USE ONLY / Réserve au ministère</p> <p>REGISTRATION DATE / Date d'enregistrement</p> <p>EXPIRY DATE / Date d'expiration</p>
<p>7. Type of Registrant / Type de personne enregistrée</p> <p>A <input type="checkbox"/> Sole proprietorship / Entreprise personnelle</p> <p>B <input type="checkbox"/> Partnership / Société en nom collectif</p> <p><input type="checkbox"/> More than 10 partners: records at business address / Plus de dix associés: dossiers à l'adresse d'affaires</p>	<p>9. Residence address or address for service / Adresse personnelle ou domicile élu</p>	<p>10. Signature</p>
<p>Form 1 / Formule 1</p>		

<p>Ministry of Consumer and Commercial Relations Ministère de la Consommation et du Commerce</p> <p>REGISTRATION UNDER THE BUSINESS NAMES ACT (Corporations) ENREGISTREMENT en vertu de la Loi sur les noms commerciaux (Personnes morales)</p> <p>Form 2 / Formule 2</p>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%; vertical-align: top;"> <p>1. Business or Identification Name / Nom commercial ou d'identification</p> <p>2. Activity carried on under business or identification name / Activité exercée sous le nom commercial ou d'identification</p> <p>3. Name of corporation / Dénomination de la personne morale</p> <p>4. Mailing address of the corporation / Adresse postale de la personne morale</p> </td> <td style="width:40%; vertical-align: top;"> <p>MINISTRY USE ONLY / RÉSERVÉ AU MINISTÈRE</p> <p>5. Registration Type / Type d'enregistrement</p> <p>A <input type="checkbox"/> New / Nouvel</p> <p>B <input type="checkbox"/> Renewal / Renouvellement</p> <p>C <input type="checkbox"/> Amendment / Modification</p> <p>D <input type="checkbox"/> Cancellation / Révocation include date of last use of name: / Norm employé pour la dernière fois le</p> </td> </tr> <tr> <td style="vertical-align: top;"> <p>6. Ontario corporation number / Numéro matricule de la personne morale en Ontario</p> </td> <td style="vertical-align: top;"> <p>B. Date of first use of name / Norm employé pour la première fois le</p> </td> </tr> <tr> <td style="vertical-align: top;"> <p>7. Incorporating jurisdiction / Ressort de constitution</p> </td> <td style="vertical-align: top;"> <p>MINISTRY USE ONLY / RÉSERVÉ AU MINISTÈRE</p> <p>REGISTRATION DATE / Date d'enregistrement</p> <p>EXPIRY DATE / Date d'expiration</p> </td> </tr> <tr> <td style="vertical-align: top;"> <p>9. Head or registered office address of the corporation / Adresse du siège social de la personne morale</p> </td> <td style="vertical-align: top;"> <p>Postal Code / Code postal</p> </td> </tr> <tr> <td style="vertical-align: top;"> <p>10. Address of principal place of business in Ontario / Adresse de l'établissement principal en Ontario</p> </td> <td style="vertical-align: top;"> <p>Postal Code / Code postal</p> </td> </tr> <tr> <td style="vertical-align: top;"> <p>11. Signature of authorized signing officer / Signature du signataire autorisé</p> </td> <td style="vertical-align: top;"> <p>12. Name of the signing officer / Nom du signataire</p> </td> </tr> </table>	<p>1. Business or Identification Name / Nom commercial ou d'identification</p> <p>2. Activity carried on under business or identification name / Activité exercée sous le nom commercial ou d'identification</p> <p>3. Name of corporation / Dénomination de la personne morale</p> <p>4. Mailing address of the corporation / Adresse postale de la personne morale</p>	<p>MINISTRY USE ONLY / RÉSERVÉ AU MINISTÈRE</p> <p>5. Registration Type / Type d'enregistrement</p> <p>A <input type="checkbox"/> New / Nouvel</p> <p>B <input type="checkbox"/> Renewal / Renouvellement</p> <p>C <input type="checkbox"/> Amendment / Modification</p> <p>D <input type="checkbox"/> Cancellation / Révocation include date of last use of name: / Norm employé pour la dernière fois le</p>	<p>6. Ontario corporation number / Numéro matricule de la personne morale en Ontario</p>	<p>B. Date of first use of name / Norm employé pour la première fois le</p>	<p>7. Incorporating jurisdiction / Ressort de constitution</p>	<p>MINISTRY USE ONLY / RÉSERVÉ AU MINISTÈRE</p> <p>REGISTRATION DATE / Date d'enregistrement</p> <p>EXPIRY DATE / Date d'expiration</p>	<p>9. Head or registered office address of the corporation / Adresse du siège social de la personne morale</p>	<p>Postal Code / Code postal</p>	<p>10. Address of principal place of business in Ontario / Adresse de l'établissement principal en Ontario</p>	<p>Postal Code / Code postal</p>	<p>11. Signature of authorized signing officer / Signature du signataire autorisé</p>	<p>12. Name of the signing officer / Nom du signataire</p>
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BUSINESS NAMES ACT, 1990**O. Reg. 122/91.**

Restrictions Respecting Names.
Made—March 20th, 1991.
Filed—March 25th, 1991.

REGULATION MADE UNDER THE
BUSINESS NAMES ACT, 1990

RESTRICTIONS RESPECTING NAMES

General

1. The first character of a name shown in a registration must be a letter of the Roman alphabet or an Arabic numeral. O. Reg. 122/91, s. 1.

2.—(1) For the purposes of subsection 4 (3) of the Act, the following are prescribed as the punctuation marks and other marks that may form part of a registered name:

! " # \$ % & ' () * + , - . / : ; > = < ? [] \ ^ _ ` ,

(2) A name shown in a registration must not consist only or primarily of a combination of punctuation marks and other marks. O. Reg. 122/91, s. 2.

3. If the name contains characters from an alphabet other than the Roman alphabet, the name shown in the registration must consist of a translation of the name into a language which contains only letters from the Roman alphabet. O. Reg. 122/91, s. 3.

Prohibited Usage

4.—(1) A name shown in a registration must not include, in any language, a word or expression that is contrary to public policy, including a word or expression that is scandalous, obscene or immoral.

(2) A name shown in a registration must not use a word or expression that would suggest that the registrant is engaged in an activity that is contrary to public policy. O. Reg. 122/91, s. 4.

5. A name shown in a registration must not include a word, an expression or an abbreviation the use of which is prohibited under a federal Act or an Ontario Act. O. Reg. 122/91, s. 5.

6. A name shown in a registration must not use Arabic numerals or a word or expression that would suggest that the name is a corporate number name. O. Reg. 122/91, s. 6.

7. A name shown in a registration must not use a word or expression that would suggest that the registrant is a form of organization that the registrant is not. O. Reg. 122/91, s. 7.

Restrictions

8.—(1) A name shown in a registration must not include the name of a specific individual,

(a) unless, at any time before or during the period of the registration of the name, the individual has or had a material interest in the business or activity carried on by the registrant; and

(b) unless the individual consents in writing to the use of his or her name.

(2) For the purpose of clause (1) (b), if the individual is deceased and his or her death occurred within thirty years before the name is registered, the heir, executor or administrator of the individual may consent in writing to the use of the individual's name.

LOI DE 1990 SUR LES NOMS COMMERCIAUX**Règl. de l'Ont. 122/91**

Restrictions concernant les noms
commerciaux
pris—le 20 mars 1991
déposé—le 25 mars 1991

RÈGLEMENT PRIS EN APPLICATION
DE LA LOI INTITULÉE *BUSINESS NAMES ACT, 1990*
(« LOI DE 1990 SUR LES NOMS COMMERCIAUX »)

RESTRICTIONS CONCERNANT LES NOMS COMMERCIAUX

Dispositions générales

1 La première lettre du nom figurant dans l'enregistrement doit être un caractère romain ou un chiffre arabe. Règl. de l'Ont. 122/91, art. 1.

2 (1) Pour l'application du paragraphe 4 (3) de la Loi, les signes de ponctuation et autres signes suivants qui peuvent faire partie d'un nom commercial enregistré sont prescrits :

! " # \$ % & ' () * + , - . / : ; > = < ? [] \ ^ _ ` ,

(2) Le nom qui figure dans l'enregistrement ne doit pas consister seulement ou principalement en une combinaison de signes de ponctuation et d'autres signes. Règl. de l'Ont. 122/91, art. 2.

3 Si le nom comprend des lettres en caractères autres que romains, le nom figurant dans l'enregistrement doit représenter une traduction du nom dans une langue qui ne comprend que des caractères romains. Règl. de l'Ont. 122/91, art. 3.

Emploi interdit

4 (1) Le nom figurant dans l'enregistrement ne doit comprendre dans aucune langue un mot ou une expression qui va à l'encontre de l'ordre public, notamment un mot ou une expression de nature infamante, obscène ou immorale.

(2) Le nom figurant dans l'enregistrement ne doit pas comporter un mot ou une expression qui pourraient suggérer que la personne enregistrée se livre à une activité contraire à l'ordre public. Règl. de l'Ont. 122/91, art. 4.

5 Le nom figurant dans l'enregistrement ne doit pas comprendre de mots, d'expressions ou d'abréviations dont une loi fédérale ou une loi de l'Ontario interdit l'emploi. Règl. de l'Ont. 122/91, art. 5.

6 Le nom figurant dans l'enregistrement ne doit pas comporter de chiffres arabes, un mot ou une expression qui pourraient suggérer qu'il s'agit d'une dénomination sociale numérique. Règl. de l'Ont. 122/91, art. 6.

7 Le nom figurant dans l'enregistrement ne doit pas comporter un mot ou une expression qui pourraient suggérer que la personne enregistrée est un genre d'organisation qu'elle n'est pas. Règl. de l'Ont. 122/91, art. 7.

Restrictions

8 (1) Le nom figurant dans l'enregistrement ne doit pas comprendre le nom d'un particulier donné, sauf si :

a) à un moment quelconque avant ou pendant l'enregistrement du nom, le particulier détient ou détenait un intérêt important dans l'entreprise qu'il exploite ou l'activité qu'il exerce;

b) le particulier consent par écrit à ce que son nom soit employé.

(2) Pour l'application de l'alinéa (1) b), si le particulier est décédé dans les trente ans précédant l'enregistrement du nom, son héritier, son exécuteur testamentaire ou son administrateur successoral doit consentir par écrit à ce que le nom du particulier soit employé.

(3) This section does not apply if the individual is deceased and his or her death occurred thirty years or more before the name is registered. O. Reg. 122/91, s. 8.

9. A name shown in a registration must not include a word, expression or abbreviation the use of which is restricted under a federal Act or an Ontario Act unless the registrant satisfies the restriction. O. Reg. 122/91, s. 9.

10.—(1) Subject to subsection (2), a name shown in a registration must not include a word or expression that suggests that the business or activity of the registrant is connected with,

- (a) the Crown in right of Canada or in right of a province;
- (b) the government of Canada, of a territory or of a province;
- (c) a municipality; or
- (d) an agency of the Crown, government or municipality.

(2) If the registrant obtains the written consent of the applicable Crown, government, municipality or agency, a name shown in a registration may include a word or expression described in subsection (1). O. Reg. 122/91, s. 10.

11. A name shown in a registration must not include in any language the word "college", "institute" or "university", if the use of the word would suggest that the registrant is a post-secondary educational institution, unless the Minister of Colleges and Universities gives written consent to the use of the word. O. Reg. 122/91, s. 11.

Exceptions

12.—(1) Sections 1, 2, 3, 6, 7, 8, 10 and 11 do not apply with respect to a name shown in a registration if, on the 30th day of April, 1991,

- (a) the registrant was using the name; and
- (b) the registrant was not required to file a declaration under the *Partnerships Registration Act* respecting the name.

(2) Sections 1, 2, 3, 6, 7, 8, 10 and 11 do not apply with respect to a name shown in a registration,

- (a) if the registrant was using the name on the 30th day of April, 1991; and
- (b) if the registrant was required, on the 30th day of April, 1991, to file a declaration under the *Partnerships Registration Act* respecting the name before the 1st day of July, 1991. O. Reg. 122/91, s. 12.

Commencement

13. This Regulation comes into force on the 1st day of May, 1991.

15/91

(3) Le présent article ne s'applique pas au particulier qui est décédé trente ans ou plus avant l'enregistrement du nom. Règl. de l'Ont. 122/91, art. 8.

9 Le nom figurant dans l'enregistrement ne doit pas comprendre de mots, d'expressions ou d'abréviations dont une loi fédérale ou une loi de l'Ontario restreint l'emploi, sauf si la personne enregistrée respecte ces restrictions. Règl. de l'Ont. 122/91, art. 9.

10 (1) Sous réserve du paragraphe (2), le nom figurant dans l'enregistrement ne doit pas comprendre de mots ou d'expressions qui suggèrent que l'entreprise ou l'activité de la personne enregistrée est liée à l'une des autorités suivantes :

- a) la Couronne du chef du Canada ou de chef d'une province;
- b) le gouvernement du Canada, d'un territoire ou d'une province;
- c) une municipalité;
- d) un organisme de la Couronne, du gouvernement ou d'une municipalité.

(2) Si la personne enregistrée obtient le consentement écrit de la Couronne, du gouvernement, de la municipalité ou de l'organisme, selon le cas, le nom figurant dans l'enregistrement peut comprendre un mot ou une expression décrits au paragraphe (1). Règl. de l'Ont. 122/91, art. 10.

11 Le nom figurant dans l'enregistrement ne doit pas comprendre, dans quelque langue que ce soit, le mot « collège », « institut » ou « université » si l'emploi de ce mot suggérerait que la personne enregistrée est un établissement d'enseignement postsecondaire, sauf consentement écrit à cet effet du ministre des Collèges et Universités. Règl. de l'Ont. 122/91, art. 11.

Exceptions

12 (1) Les articles 1, 2, 3, 6, 7, 8, 10 et 11 ne s'appliquent pas au nom figurant dans l'enregistrement si, le 30 avril 1991 :

- a) la personne enregistrée employait ce nom;
- b) la personne enregistrée n'était pas tenue de déposer une déclaration relative à ce nom aux termes de la loi intitulée *Partnerships Registration Act* (« Loi sur l'enregistrement des sociétés en nom collectif »).

(2) Les articles 1, 2, 3, 6, 7, 8, 10 et 11 ne s'appliquent pas au nom figurant dans l'enregistrement si :

- a) la personne enregistrée employait ce nom le 30 avril 1991;
- b) la personne enregistrée était tenue, le 30 avril 1991, de déposer une déclaration relative à ce nom aux termes de la loi intitulée *Partnerships Registration Act* (« Loi sur l'enregistrement des sociétés en nom collectif ») avant le 1^{er} juillet 1991. Règl. de l'Ont. 122/91, art. 12.

Entrée en vigueur

13 Le présent règlement entre en vigueur le 1^{er} mai 1991.

CORPORATIONS INFORMATION ACT

O. Reg. 123/91.

General.
Made—March 20th, 1991.
Filed—March 25th, 1991.

METROPOLITAN TORONTO CONDOMINIUM PLAN NUMBERS

634	669	684	726	741	763	767
779	799	826	862			

15/91

**REGULATION TO AMEND
REGULATION 189 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
CORPORATIONS INFORMATION ACT**

1. Sections 6 and 7 of Regulation 189 of Revised Regulations of Ontario, 1980 are revoked.

2. This Regulation comes into force on the 1st day of May, 1991.

15/91

PARTNERSHIPS REGISTRATION ACT

O. Reg. 124/91.

General.
Made—March 20th, 1991.
Filed—March 25th, 1991.

REGULATION TO REVOKE

**REGULATION 745 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
PARTNERSHIPS REGISTRATION ACT**

1. Regulation 745 of Revised Regulations of Ontario, 1980 and Ontario Regulations 204/84, 165/87, 458/88, 363/89 and 365/90 are revoked.

2. This Regulation comes into force on the 1st day of May, 1991.

15/91

LAND REGISTRATION REFORM ACT, 1984

O. Reg. 125/91.

General.
Made—May 7th, 1990.
Filed—March 25th, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 580/84
MADE UNDER THE**

LAND REGISTRATION REFORM ACT, 1984

1. Subsection 1 (2) of Ontario Regulation 580/84 is amended by adding the following paragraph:

35. All those condominiums in the City of Scarborough (originally the Township of Scarborough) numbered as follows:

YORK CONDOMINIUM PLAN NUMBERS

124	134	171	183	246	259	315
324	404	424	443			

PROVINCIAL OFFENCES ACT

O. Reg. 126/91.

Parking Infractions.
Made—March 20th, 1991.
Filed—March 26th, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 428/87
MADE UNDER THE
PROVINCIAL OFFENCES ACT**

1. Schedule 32 to Ontario Regulation 428/87 is amended by renumbering item 1 as item 1d and by adding the following items:

- 1. Possess illegal disabled person parking permit clause 17b (a)
- 1a. Illegally display disabled person parking permit clause 17b (b)
- 1b. Fail to surrender disabled person parking permit clause 17b (c)
- 1c. Illegally use disabled person parking permit on Crown land clause 17b (d)

15/91

PROVINCIAL OFFENCES ACT

O. Reg. 127/91.

Parking Infractions.
Made—March 20th, 1991.
Filed—March 26th, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 428/87
MADE UNDER THE
PROVINCIAL OFFENCES ACT**

1. Schedule 44 to Ontario Regulation 428/87, as remade by section 1 of Ontario Regulation 251/88, is amended by adding the following item:

- 6a. Park vehicle without valid permit subsection 10 (5a)

15/91

PLANNING ACT, 1983

O. Reg. 128/91.

Restricted Areas—District of Manitoulin,
Geographic townships of Campbell, Dawson,
Mills and Robinson.
Made—March 21st, 1991.
Filed—March 26th, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 672/81
MADE UNDER THE
PLANNING ACT, 1983**

1. Ontario Regulation 672/81 is amended by adding the following section:

145.—(1) Despite subsection 50 (1), one seasonal dwelling together with buildings and structures accessory to it may be erected and used on the land described in subsection (2) if the following requirements are met:

Maximum lot coverage	15 per cent
Minimum front yard	7.5 metres
Minimum rear yard	7.5 metres
Minimum side yards	5 metres
Maximum height	9 metres

(2) Subsection (1) applies to that parcel of land in the Township of Robinson in the Territorial District of Manitoulin being part of Lot 7, Concession I, designated as Part 87 on Reference Plan RR-39 deposited in the Land Registry Office for the Registry Division of Manitoulin (No. 31). O. Reg. 128/91, s. 1.

PETER W. BOLES
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 21st day of March, 1991.

15/91

PLANNING ACT, 1983

O. Reg. 129/91.

Restricted Areas—District of Manitoulin,
Geographic townships of Campbell, Dawson,
Mills and Robinson.
Made—March 21st, 1991.
Filed—March 26th, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 672/81
MADE UNDER THE
PLANNING ACT, 1983**

1. Ontario Regulation 672/81 is amended by adding the following section:

146.—(1) Despite subsection 50 (1), one seasonal dwelling together with buildings and structures accessory to it may be erected and used on the land described in subsection (2) if the following requirements are met:

Maximum lot coverage	15 per cent
Minimum front yard	15 metres
Minimum rear yard	7.5 metres
Minimum side yards	5 metres
Maximum height	9 metres

(2) Subsection (1) applies to that parcel of land in the Township of

Robinson in the Territorial District of Manitoulin being part of Lot 8, Concession I, designated as Part 68 on Reference Plan RR-39 deposited in the Land Registry Office for the Registry Division of Manitoulin (No. 31). O. Reg. 129/91, s. 1.

PETER W. BOLES
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 21st day of March, 1991.

15/91

PLANNING ACT, 1983

O. Reg. 130/91.

Restricted Areas—District of Manitoulin,
Geographic townships of Campbell, Dawson,
Mills and Robinson.
Made—March 21st, 1991.
Filed—March 26th, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 672/81
MADE UNDER THE
PLANNING ACT, 1983**

1. Ontario Regulation 672/81 is amended by adding the following section:

147.—(1) Despite clauses 5 (4) (a) and (c), an accessory building or structure may be erected and used on the lands described in subsection (2) if it is located at least two metres from the front lot line.

(2) Subsection (1) applies to those lands in the Township of Campbell in the Territorial District of Manitoulin being part of Lot 21 in Concession IX, designated as Part 1 on Reference Plan 31R-263 deposited in the Land Registry Office for the Registry Division of Manitoulin (No. 31). O. Reg. 130/91, s. 1.

PETER W. BOLES
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 21st day of March, 1991.

15/91

PLANNING ACT, 1983

O. Reg. 131/91.

Restricted Areas—District of Sudbury,
Territorial District of Sudbury.
Made—March 21st, 1991.
Filed—March 26th, 1991.

**REGULATION TO AMEND
ONTARIO REGULATION 834/81
MADE UNDER THE
PLANNING ACT, 1983**

1. Schedule 1 to Ontario Regulation 834/81 is amended by adding the following section:

104.—(1) A mobile home together with buildings and structures

accessory to it may be erected and used on the land described in subsection (2), in addition to the single dwelling existing on the land on the date this section comes into force, if the requirements set out in subsection 23 (3) of the Regulation are met.

(2) Subsection (1) applies to that parcel of land in the geographic Township of Delamere in the Territorial District of Sudbury being part of Lot 7 in Concession II designated as Part 1 on Reference Plan 53R-1133 deposited in the Land Registry Office for the Land Titles Division of Sudbury (No. 53).

PETER W. BOLES
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 21st day of March, 1991.

15/91

PLANNING ACT, 1983

O. Reg. 132/91.

Withdrawal of Delegation of Authority of Minister under subsection 4 (4) of the Planning Act, 1983—
Subdivision and Condominium Plans—
Regional Municipality of Peel.
Made—March 27th, 1991.
Filed—March 27th, 1991.

ORDER MADE UNDER THE PLANNING ACT, 1983

WITHDRAWAL OF DELEGATION OF AUTHORITY OF MINISTER UNDER SUBSECTION 4 (4) OF THE PLANNING ACT, 1983 — SUBDIVISION AND CONDOMINIUM PLANS — REGIONAL MUNICIPALITY OF PEEL

WHEREAS under section 4 of the *Planning Act, 1983*, the authority of the Minister of Municipal Affairs under section 50 of that Act and section 50 of the *Condominium Act* was delegated to The Regional Municipality of Peel under Ontario Regulations 475/83 and 476/83;

AND WHEREAS the Minister of Municipal Affairs is concerned that new development in the vicinity of the Britannia Landfill Site in the City of Mississauga may limit options for the future use of the site for landfill purposes;

THEREFORE, the Minister orders as follows:

1. The delegation of authority under section 50 of the *Planning Act, 1983* and section 50 of the *Condominium Act* to The Regional Municipality of Peel filed as Ontario Regulations 475/83 and 476/83 is hereby withdrawn in respect of all applications for approval regarding lands described in section 2. O. Reg. 132/91, s. 1.

2. This Order applies to the area in the City of Mississauga in The Regional Municipality of Peel known as the Britannia Landfill Site and to those lands that are within 500 metres of that area, all of which is shown on a map filed with the Plans Administration Branch, Central and Southwest, of the Ministry of Municipal Affairs in Toronto as Number 180. O. Reg. 132/91, s. 2.

DAVE COOKE
Minister of Municipal Affairs

Dated at Toronto, this 27th day of March, 1991.

15/91

GAME AND FISH ACT

O. Reg. 133/91.

Bullfrogs.
Made—March 28th, 1991.
Filed—March 28th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 694/81 MADE UNDER THE GAME AND FISH ACT

1. Ontario Regulation 694/81 is amended by adding the following section:

3a. No person shall take a bullfrog by means of a fire-arm other than a long-bow or cross-bow. O. Reg. 133/91, s. 1.

15/91

GAME AND FISH ACT

O. Reg. 134/91.

Open Seasons—Snapping Turtles.
Made—March 28th, 1991.
Filed—March 28th, 1991.

REGULATION TO AMEND ONTARIO REGULATION 88/90 MADE UNDER THE GAME AND FISH ACT

1. Ontario Regulation 88/90 is amended by adding the following sections:

6. No person shall take a snapping turtle except,

(a) by means of a box or funnel trap that does not injure or kill the turtle; or

(b) by his or her bare hand. O. Reg. 134/91, s. 1, *part*.

7.—(1) It is a condition of a licence issued in Form 1 or Form 13 of Ontario Regulation 526/86 that the upper shell shall not be removed from any snapping turtle carcass while it is in the possession of or is being transported by the licensee.

(2) Despite subsection (1), the upper shell of a carcass may be removed immediately before it is prepared for consumption. O. Reg. 134/91, s. 1, *part*.

15/91

PROVINCIAL PARKS ACT

O. Reg. 135/91.

General.
Made—March 28th, 1991.
Filed—March 28th, 1991.

REGULATION TO AMEND REGULATION 822 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE PROVINCIAL PARKS ACT

1. Regulation 822 of Revised Regulations of Ontario, 1980 is amended by adding the following section:

5a.—(1) No person shall rappel or climb rock faces in a provincial park with the aid of ropes, anchors or similar equipment except in an area designated for that purpose.

(4) The superintendent may designate an area for the purposes set out in subsection (1) which is in the opinion of the superintendent neither environmentally nor ecologically sensitive. O. Reg. 135/91, s. 1.

2. Subsection 7 (2) of the Regulation, as remade by section 3 of Ontario Regulation 188/82, is revoked and the following substituted:

(2) An officer who believes on reasonable and probable grounds that a person has contravened subsection 31 (2) of the *Liquor Licence Act, 1990*, a regulation made under paragraph 34 of subsection 62 (1) of the *Liquor Licence Act, 1990*, a provision of the *Criminal Code* (Canada), subsection (1) or subsection 2 (1) may,

- (a) remove the person from the provincial park; and
- (b) cancel any permit issued to the person for the provincial park in which the contravention occurred. O. Reg. 135/91, s. 2.

3. The Table to section 33 (3a) of the Regulation, as made by section 1 of Ontario Regulation 87/88 and as amended by section 2 of Ontario Regulation 291/89 and section 6 of Ontario Regulation 128/90, is further amended by adding the following items:

- 42. Little Current River
- 43. Turtle River
- 44. Missinaibi (easterly from the boundary between Lerwich and Kildore townships)

15/91

PROVINCIAL PARKS ACT

O. Reg. 136/91.

Designation of Parks.
Made—March 28th, 1991.
Filed—March 28th, 1991.

**REGULATION TO AMEND
REGULATION 821 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
PROVINCIAL PARKS ACT**

1.—(1) Subparagraph i of paragraph 3 of Schedule 32 of Appendix B to Regulation 821 of Revised Regulations of Ontario, 1980 is revoked and the following substituted:

- i. Part of lots 5 and 6, in Concession XV, and part of Lot 5, in Concession VI, containing an area of 114.181 hectares, more or less.

Beginning at the northeasterly corner of Lot 5, in Concession XV; thence southerly along the easterly limit of said Lot 5 a distance of 272.156 metres; thence north 72°40'30" east 294.464 metres; thence south 10°24'00" east 633.868 metres; thence south 50°15'30" west 332.351 metres, more or less, to the easterly limit of Lot 5; thence south 10°35'30" east along the easterly limit 23.034 metres; thence north 50°15'30" east 340.763 metres; thence north 66°08'45" east 9.799 metres; thence south 70°05'10" east 88.426 metres; thence south 42°16'40" east 83.735 metres; thence north 60°08'50" east 183.026 metres, more or less, to the easterly limit of Lot 6; thence southerly along the easterly limit of Lot 6 a distance of 326.307 metres, more or less, to the southeasterly corner of Lot 6; thence westerly along the southerly limit of lots 6 and 5 a distance of 1,204.765 metres, more or less, to the westerly limit of Lot 5; thence northerly along the westerly limit of Lot 5 a distance of 535.183 metres, more or less, to the southerly bank of

Nottawasaga River; thence in a general easterly and northerly direction along that bank to the most southerly corner of Part 5, Plan 51R-1316; thence north 46°11'50" east along the southeasterly limit of Part 5 a distance of 80.891 metres, more or less, to the southwesterly limit of Part 3, Plan 51R-1316; thence north 43°27'10" west along the southwesterly limit 29.813 metres; thence north 54°07'40" west along the southwesterly limit 6.416 metres; thence north 35°52'20" east 20.117 metres to the northerly limit of Woodland Drive; thence north 54°07'40" west along the northerly limit 27.432 metres; thence westerly along the northerly limit on a curve to the left having a radius of 358.241 metres, an arc distance of 270.800 metres, the chord equivalent being 264.399 metres measured north 75°47'00" west; thence north 10°34'20" west 257.251 metres; thence north 53°27'20" east 103.041 metres; thence north 36°05'40" east 52.685 metres; thence north 06°14'45" west 206.590 metres; thence north 04°42'45" west 36 metres, more or less, to the southerly limit of Part 1, Plan 51R-13794; thence north 85°17'15" east 30.55 metres; thence north 4°41'35" west 39.98 metres; thence north 83°53'5" west 31.09 metres, more or less, to the easterly limit of Oxbow Park Road; thence north 4°42'45" west 54.29 metres, more or less, to the southerly limit of River Road; thence north 41°02'55" east along the southerly limit 136.492 metres; thence south 10°38'20" east 405.805 metres to the northerly limit of Lot 5 in Concession XV; thence easterly along that northerly limit 297.195 metres, more or less, to the place of beginning.

(2) Subparagraphs iii, iv and v of paragraph 4 of Schedule 32 of Appendix B are revoked.

15/91

PROVINCIAL PARKS ACT

O. Reg. 137/91.

Designation of Parks.
Made—March 28th, 1991.
Filed—March 28th, 1991.

**REGULATION TO AMEND
REGULATION 821 OF REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
PROVINCIAL PARKS ACT**

1. Schedule 185 of Appendix B to Regulation 821 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 279/85, is revoked and the following substituted:

Schedule 185

BOYNE VALLEY PROVINCIAL PARK

In the geographical and municipal Township of Mulmur, containing 431 hectares, more or less, being composed of those parts of the said geographic township designated as parts 1, 2, 3 and 4 on a plan entitled Central-Boyne Valley that is filed in the office of the Regional Director for the Central Administrative Region of the Ministry of Natural Resources at Aurora and marked as having been approved on behalf of the Regional Director on the 12th day of November, 1990. O. Reg. 137/91, s. 1.

15/91

MILK ACT

O. Reg. 138/91.

Cheese—Marketing—Exemptions.
Made—March 28th, 1991.
Filed—March 28th, 1991.

TABLE 2
1989 SPECIFIC GRANTS (\$'S PER PUPIL)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	SMALL SCHOOLS	SMALL BOARD	GOODS & SERVICES	COMP. EDUCATION	LANGUAGE INSTRUCTION	MIXED SCHOOLS	TECHNICAL EDUCATION	TOTAL	QUALIFICATIONS & EXPERIENCE
BOARDS OF EDUCATION									
ATIKOKAN									
Elementary	-	348.50	291.00	97.00	-	-	-	736.50	140.40
Secondary	904.17	387.06	371.00	61.00	-	-	186.30	1,909.53	25.14
BRANT									
Elementary	-	-	-	-	-	-	-	-	65.99
Secondary	-	-	-	-	3.25	-	-	3.25	69.66
BRUCE									
Elementary	8.09	-	-	-	-	-	-	8.09	-
Secondary	97.63	53.13	-	-	-	-	-	150.76	37.51
CARLETON									
Elementary	1.29	-	-	-	-	-	-	1.29	25.23
Secondary	-	-	-	-	-	-	-	-	16.49
CENTRAL ALGOMA									
Elementary	44.97	130.18	291.00	97.00	-	-	-	563.15	187.63
Secondary	-	215.34	371.00	61.00	-	-	113.42	760.76	57.30
CHAPLEAU									
Elementary	-	440.29	291.00	97.00	-	-	-	828.29	-
Secondary	1,281.02	650.54	371.00	61.00	-	1,274.21	18.65	3,656.42	-
COCHRANE IROQUOIS FALLS									
Elementary	-	134.37	291.00	97.00	-	-	-	522.37	58.23
Secondary	189.95	211.22	371.00	61.00	-	278.53	85.27	1,196.97	138.50
DRYDEN									
Elementary	112.25	79.84	291.00	161.00	-	-	-	644.09	-
Secondary	304.94	139.71	371.00	103.00	-	-	-	918.65	-
DUFFERIN									
Elementary	-	20.72	-	-	-	-	-	20.72	-
Secondary	-	91.61	-	-	-	-	-	91.61	-
DURHAM									
Elementary	-	-	-	-	-	-	-	-	-
Secondary	-	-	-	-	-	-	-	-	-
EAST PARRY SOUND									
Elementary	126.49	77.46	291.00	64.00	-	-	-	558.95	91.23
Secondary	-	164.00	371.00	41.00	-	-	18.14	594.14	16.49
ELGIN									
Elementary	-	-	-	-	6.67	-	-	6.67	18.76
Secondary	7.81	10.64	-	-	-	-	-	18.45	-
ESPANOLA									
Elementary	55.32	143.18	291.00	97.00	-	-	-	586.50	45.29
Secondary	-	205.42	371.00	61.00	-	35.61	-	673.03	-
ESSEX									
Elementary	6.79	-	-	-	-	-	-	6.79	75.38
Secondary	-	3.71	-	-	-	1.08	2.31	7.10	140.56
FORT FRANCES RAINY RIVER									
Elementary	61.79	95.70	291.00	97.00	-	-	-	545.49	-
Secondary	233.68	159.48	371.00	61.00	-	-	28.60	853.76	34.62
FRONTENAC									
Elementary	26.20	2.14	-	64.00	-	-	-	92.34	38.17
Secondary	28.27	3.92	-	41.00	-	9.23	39.96	122.38	97.69
GERALDTON									
Elementary	414.73	244.73	291.00	97.00	-	-	-	1,047.46	19.73
Secondary	933.61	292.04	371.00	61.00	-	-	36.24	1,693.89	-
GREY									
Elementary	-	-	-	-	-	-	-	-	-
Secondary	-	3.66	-	-	-	-	-	3.66	22.26

TABLE 2
1989 SPECIFIC GRANTS (\$'S PER PUPIL)

(1)	(2) SMALL SCHOOLS	(3) SMALL BOARD	(4) GOODS & SERVICES	(5) COMP. EDUCATION	(6) LANGUAGE INSTRUCTION	(7) MIXED SCHOOLS	(8) TECHNICAL EDUCATION	(9) TOTAL	(10) QUALIFICATIONS & EXPERIENCE
BOARDS OF EDUCATION									
HALDIMAND									
Elementary	-	24.30	-	-	-	-	-	24.30	-
Secondary	-	86.62	-	-	-	-	-	86.62	50.29
HALIBURTON									
Elementary	101.90	126.89	194.00	64.00	-	-	-	486.79	-
Secondary	10.93	239.40	247.00	41.00	-	-	40.72	579.05	113.77
HALTON									
Elementary	-	-	-	-	15.93	-	-	15.93	37.53
Secondary	-	-	-	-	8.16	-	-	8.16	40.81
HAMILTON									
Elementary	-	-	-	129.00	6.46	-	-	135.46	42.06
Secondary	11.41	0.60	-	82.00	20.77	-	1.12	115.90	82.85
HASTINGS									
Elementary	16.82	-	-	-	-	-	-	16.82	-
Secondary	-	-	-	-	-	-	-	-	92.75
HEARST									
Elementary	-	372.11	291.00	97.00	-	-	-	760.11	-
Secondary	224.00	271.59	371.00	61.00	-	134.29	80.07	1,141.95	5.77
HORNEPAYNE									
Elementary	-	515.36	291.00	97.00	-	-	-	903.36	-
Secondary	3,439.03	932.00	371.00	61.00	-	-	334.91	5,137.94	-
HURON									
Elementary	6.15	-	-	-	-	-	-	6.15	58.55
Secondary	-	42.64	-	-	-	-	-	42.64	6.18
KAPUSKASING									
Elementary	149.13	224.84	291.00	97.00	-	-	-	761.97	-
Secondary	440.61	319.07	371.00	61.00	-	66.88	32.07	1,290.62	-
KENORA									
Elementary	58.55	113.96	291.00	161.00	-	-	-	624.51	47.55
Secondary	-	172.17	371.00	103.00	-	-	-	646.17	76.67
KENT									
Elementary	-	-	-	-	-	-	-	-	121.96
Secondary	-	-	-	-	-	-	-	-	126.55
KIRKLAND LAKE									
Elementary	235.83	150.11	291.00	64.00	-	-	-	740.94	241.65
Secondary	333.24	208.86	371.00	41.00	-	-	13.33	967.43	59.77
LAKE SUPERIOR									
Elementary	19.41	118.04	291.00	97.00	-	-	-	525.45	-
Secondary	833.47	199.36	371.00	61.00	1.97	21.10	-	1,487.90	-
LAKEHEAD									
Elementary	13.59	-	194.00	97.00	-	-	-	304.59	196.04
Secondary	-	-	247.00	61.00	-	-	-	308.00	98.10
LAMBTON									
Elementary	8.09	-	-	-	-	-	-	8.09	47.55
Secondary	23.82	3.29	-	-	3.81	16.47	-	47.39	81.62
LANARK									
Elementary	6.47	-	-	64.00	-	-	-	70.47	-
Secondary	-	62.27	-	41.00	-	-	-	103.27	13.60
LEEDS & GRENVILLE									
Elementary	21.35	-	-	-	-	-	-	21.35	15.20
Secondary	30.62	-	-	-	-	-	-	30.62	69.66
LENNOX & ADDINGTON									
Elementary	62.44	24.23	-	-	-	-	-	86.67	13.91
Secondary	77.31	101.79	-	-	-	-	6.87	185.97	106.35
LINCOLN									
Elementary	-	-	-	64.00	-	-	-	64.00	100.93
Secondary	-	-	-	41.00	-	-	-	41.00	107.17
LONDON									
Elementary	-	0.68	-	64.00	30.56	-	-	95.24	51.44
Secondary	-	1.57	-	41.00	43.43	4.19	44.05	134.24	96.04

TABLE 2
1989 SPECIFIC GRANTS (\$'S PER PUPIL)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BOARDS OF EDUCATION	SMALL SCHOOLS	SMALL BOARD	GOODS & SERVICES	COMP. EDUCATION	LANGUAGE INSTRUCTION	MIXED SCHOOLS	TECHNICAL EDUCATION	TOTAL	QUALIFICATIONS & EXPERIENCE
MANITOULIN									
Elementary	42.38	149.01	291.00	161.00	-	-	-	643.39	-
Secondary	-	218.93	371.00	103.00	-	-	-	692.93	15.25
METRO TORONTO									
Elementary	-	-	-	129.00	74.97	-	-	203.97	-
Secondary	0.68	-	-	82.00	146.94	-	-	229.61	-
MICHIGICOTEN									
Elementary	-	302.39	291.00	97.00	-	-	-	690.39	56.29
Secondary	1,377.63	358.36	371.00	61.00	-	-	75.81	2,243.80	-
MIDDLESEX									
Elementary	11.97	-	-	-	-	-	-	11.97	-
Secondary	39.02	46.19	-	-	-	-	14.98	100.19	30.09
MUSKOKA									
Elementary	43.35	8.16	194.00	64.00	-	-	-	309.51	27.50
Secondary	-	96.65	247.00	41.00	-	-	-	384.65	-
NIAGARA SOUTH									
Elementary	-	-	-	64.00	-	-	-	64.00	113.55
Secondary	7.96	-	-	41.00	-	-	1.42	50.38	155.40
NIPIGON-RED ROCK									
Elementary	102.23	214.00	291.00	97.00	-	-	-	704.23	-
Secondary	633.70	332.32	371.00	61.00	-	-	84.97	1,482.99	-
NIPISSING									
Elementary	20.70	8.56	194.00	64.00	-	-	-	287.26	109.99
Secondary	79.83	42.70	247.00	41.00	17.84	15.65	-	444.03	180.13
NORFOLK									
Elementary	-	-	-	-	14.49	-	-	14.49	52.73
Secondary	-	56.52	-	-	2.48	-	-	59.00	36.69
NORTH SHORE									
Elementary	44.00	88.68	291.00	97.00	-	-	-	520.68	-
Secondary	240.08	125.43	371.00	61.00	-	-	35.99	833.50	2.06
NORTHUMBERLAND & NEWCASTLE									
Elementary	15.53	-	-	-	-	-	-	15.53	-
Secondary	-	-	-	-	-	-	-	-	-
OTTAWA									
Elementary	-	-	-	97.00	65.23	-	-	162.23	-
Secondary	-	-	-	61.00	35.31	-	-	96.31	-
OXFORD									
Elementary	0.32	-	-	-	-	-	-	0.32	11.32
Secondary	-	-	-	-	-	-	-	-	53.59
PEEL									
Elementary	-	-	-	-	91.39	-	-	91.39	88.64
Secondary	-	-	-	-	67.09	-	-	67.09	58.12
PERTH									
Elementary	-	-	-	-	-	-	-	-	-
Secondary	-	25.86	-	-	0.73	-	-	26.59	72.55
PETERBOROUGH									
Elementary	3.88	-	-	-	-	-	-	3.88	-
Secondary	18.25	-	-	-	-	-	-	18.25	79.97
PRESCOTT & RUSSELL									
Elementary	-	108.88	-	64.00	-	-	-	172.88	-
Secondary	373.50	214.36	-	41.00	-	-	-	628.86	178.37
PRINCE EDWARD									
Elementary	24.26	83.45	-	-	-	-	-	107.71	35.91
Secondary	-	181.96	-	-	-	-	-	181.96	47.40
RED LAKE									
Elementary	11.97	171.14	291.00	161.00	-	-	-	635.11	-
Secondary	544.99	316.00	371.00	103.00	-	-	-	1,334.99	-
RENFREW									
Elementary	45.29	-	-	64.00	-	-	-	109.29	-
Secondary	62.62	5.00	-	41.00	-	-	-	108.62	116.65

TABLE 2
1989 SPECIFIC GRANTS (\$'S PER PUPIL)

(1)	(2) SMALL SCHOOLS	(3) SMALL BOARD	(4) GOODS & SERVICES	(5) COMP. EDUCATION	(6) LANGUAGE INSTRUCTION	(7) MIDDED SCHOOLS	(8) TECHNICAL EDUCATION	(9) TOTAL	(10) QUALIFICATIONS & EXPERIENCE
<u>BOARDS OF EDUCATION</u>									
SAULT STE MARIE									
Elementary	28.14	-	194.00	97.00	-	-	-	319.14	202.19
Secondary	-	-	247.00	61.00	-	-	7.70	315.70	138.50
SIMCOE									
Elementary	6.47	0.01	-	-	-	-	-	6.48	80.88
Secondary	12.07	1.68	-	-	-	-	0.32	14.07	24.73
STORMONT DUNDAS GLENGARRY									
Elementary	22.97	-	-	64.00	-	-	-	86.97	0.32
Secondary	16.52	-	-	41.00	-	5.11	-	62.63	121.60
SUDBURY									
Elementary	33.64	-	194.00	97.00	-	-	-	324.64	144.93
Secondary	30.43	-	247.00	61.00	-	17.99	18.02	374.44	165.29
TIMISKAMING									
Elementary	126.81	90.72	291.00	64.00	-	-	-	572.53	17.79
Secondary	126.08	149.52	371.00	41.00	-	-	-	687.60	4.53
TIMMINS									
Elementary	27.17	75.67	194.00	97.00	-	-	-	393.84	25.88
Secondary	-	135.41	247.00	61.00	-	-	26.85	470.26	74.61
VICTORIA									
Elementary	46.58	-	-	-	-	-	-	46.58	-
Secondary	-	66.74	-	-	-	-	14.59	81.33	-
WATERLOO									
Elementary	1.94	-	-	64.00	22.76	-	-	88.70	60.17
Secondary	-	-	-	41.00	27.98	-	-	68.98	-
WELLINGTON									
Elementary	0.97	-	-	-	-	-	-	0.97	16.82
Secondary	-	-	-	-	17.78	-	-	17.78	63.89
WENTWORTH									
Elementary	-	-	-	-	-	-	-	-	2.59
Secondary	-	-	-	-	-	-	-	-	84.09
WEST PARRY SOUND									
Elementary	104.49	99.57	291.00	64.00	-	-	-	559.06	97.05
Secondary	-	182.91	371.00	41.00	-	-	26.25	621.16	30.09
WINDSOR									
Elementary	-	-	-	129.00	17.63	-	-	146.63	277.56
Secondary	-	-	-	82.00	26.14	-	-	108.14	231.66
YORK REGION									
Elementary	-	-	-	-	71.68	-	-	71.68	-
Secondary	-	-	-	-	30.48	-	-	30.48	-
<u>ROMAN CATHOLIC SEPARATE SCHOOL</u>									
BRANT									
Elementary	49.17	67.72	-	-	-	-	-	116.89	-
Secondary	-	148.97	-	-	6.38	-	-	155.35	-
BRUCE-GREY									
Elementary	41.73	58.75	-	-	-	-	-	100.48	-
Secondary	216.84	200.28	-	-	-	-	23.38	440.50	-
CARLETON									
Elementary	-	-	-	-	-	-	-	-	-
Secondary	-	7.58	-	-	15.95	-	-	23.53	-
CHAPLEAU, PANET & CAVERLY									
Elementary	212.54	385.54	291.00	97.00	-	-	-	986.08	-
Secondary	-	-	-	-	-	-	-	-	-
COCHRANE-IROQUOIS FALLS									
Elementary	123.58	129.42	291.00	97.00	-	-	-	641.00	-
Secondary	1,099.13	397.13	371.00	61.00	-	-	-	1,928.26	-

TABLE 2
1989 SPECIFIC GRANTS (\$'S PER PUPIL)

(1)	(2) SMALL SCHOOLS	(3) SMALL BOARD	(4) GOODS & SERVICES	(5) COMP. EDUCATION	(6) LANGUAGE INSTRUCTION	(7) MIXED SCHOOLS	(8) TECHNICAL EDUCATION	(9) TOTAL	(10) QUALIFICATIONS & EXPERIENCE
<u>ROMAN CATHOLIC SEPARATE SCHOOL</u>									
ORYDEN									
Elementary	-	230.09	291.00	161.00	-	-	-	682.09	-
Secondary									
DUFFERIN-PEEL									
Elementary	-	-	-	-	75.68	-	-	75.68	-
Secondary	0.97	-	-	-	27.06	-	-	28.03	-
DURHAM									
Elementary	4.85	-	-	-	-	-	-	4.85	-
Secondary	46.20	83.26	-	-	-	-	3.20	132.66	-
ELGIN									
Elementary	-	123.89	-	-	-	-	-	123.89	-
Secondary	643.03	448.90	-	-	19.42	-	-	1,111.35	-
ESSEX									
Elementary	4.53	-	-	-	-	-	-	4.53	78.93
Secondary	0.15	80.66	-	-	-	13.90	-	94.72	215.58
FORT FRANCES RAINY RIVER									
Elementary	120.99	200.46	291.00	97.00	-	-	-	709.45	-
Secondary									
FRONTENAC-LENNOX & ADDINGTON									
Elementary	72.79	29.53	-	58.00	-	-	-	160.32	-
Secondary	73.51	159.65	-	37.00	-	-	-	270.16	-
GERALDTON									
Elementary	264.95	275.60	291.00	97.00	26.02	-	-	954.57	-
Secondary									
HALDIMAND-NORFOLK									
Elementary	116.78	79.77	-	-	-	-	-	196.55	-
Secondary									
HALTON									
Elementary	5.82	-	-	-	-	-	-	5.82	-
Secondary	-	52.94	-	-	3.14	-	-	56.08	-
HAMILTON-WENTWORTH									
Elementary	-	-	-	109.00	32.41	-	-	141.41	30.09
Secondary	-	-	-	70.00	-	-	-	70.00	-
HASTINGS PRINCE EDWARD									
Elementary	112.90	45.31	10.00	3.00	-	-	-	171.21	-
Secondary	-	160.96	12.00	2.00	-	-	-	174.96	-
HEARST									
Elementary	25.56	132.41	291.00	97.00	-	-	-	545.97	43.67
Secondary									
HURON-PERTH									
Elementary	100.61	65.00	-	-	-	-	-	165.61	-
Secondary	357.38	466.79	-	-	-	-	-	824.17	-
KAPUSKASING									
Elementary	93.49	103.23	291.00	97.00	-	-	-	584.72	-
Secondary	222.29	209.83	371.00	61.00	-	-	21.64	885.76	-
KENORA									
Elementary	-	155.03	291.00	161.00	-	-	-	607.03	-
Secondary	879.75	612.77	371.00	103.00	-	-	-	1,966.52	-
KENT									
Elementary	41.08	-	-	-	-	-	-	41.08	10.68
Secondary	132.77	189.71	-	-	-	-	-	322.48	-
KIRKLAND LAKE									
Elementary	164.66	131.97	291.00	64.00	-	-	-	651.63	31.70
Secondary									
LAKEHEAD									
Elementary	-	3.41	194.00	97.00	35.01	-	-	329.42	98.34
Secondary	-	171.17	247.00	61.00	29.84	26.08	-	535.09	-
LAMBTON									
Elementary	5.18	2.20	-	-	-	-	-	7.38	-
Secondary	52.93	156.49	-	-	-	8.80	-	218.22	-

TABLE 2
1989 SPECIFIC GRANTS (\$'S PER PUPIL)

(1)	(2) SMALL SCHOOLS	(3) SMALL BOARD	(4) GOODS & SERVICES	(5) COMP. EDUCATION	(6) LANGUAGE INSTRUCTION	(7) MIXED SCHOOLS	(8) TECHNICAL EDUCATION	(9) TOTAL	(10) QUALIFICATIONS & EXPERIENCE
<u>ROMAN CATHOLIC SEPARATE SCHOOL</u>									
LANARK-LEEDS GRENVILLE									
Elementary	53.70	41.68	-	29.00	-	-	-	124.38	-
Secondary	793.39	349.84	-	18.00	-	-	-	1,161.23	-
LINCOLN									
Elementary	-	1.56	-	64.00	-	-	-	65.56	34.94
Secondary	-	86.49	-	41.00	-	-	-	127.49	-
LONDON-MIDDLESEX									
Elementary	6.79	1.31	-	51.00	12.89	-	-	71.99	0.32
Secondary	18.38	67.72	-	32.00	-	-	-	118.10	-
METRO SEPARATE									
Elementary	-	-	-	129.00	111.04	-	-	240.04	12.94
Secondary	5.94	0.97	-	82.00	56.65	-	-	145.56	-
MICHIPICOTEN									
Elementary	126.81	265.44	291.00	97.00	-	-	-	780.25	-
Secondary	-	-	-	-	-	-	-	-	-
NIPISSING									
Elementary	66.96	-	194.00	64.00	-	-	-	324.96	64.38
Secondary	61.27	89.76	247.00	41.00	-	-	11.54	450.57	83.68
NORTH OF SUPERIOR									
Elementary	497.54	159.07	291.00	97.00	-	-	-	1,044.61	-
Secondary	-	-	-	-	-	-	-	-	-
NORTH SHORE									
Elementary	39.79	65.37	291.00	97.00	-	-	-	493.16	-
Secondary	-	-	-	-	-	-	-	-	-
OTTAWA									
Elementary	-	-	-	97.00	19.49	-	-	116.49	-
Secondary	-	107.82	-	61.00	69.54	-	-	238.36	-
OXFORD									
Elementary	109.02	116.48	-	-	-	-	-	225.50	7.44
Secondary	681.06	509.12	-	-	-	70.06	-	1,260.24	2.06
PETERBOROUGH VICTORIA NORTHUMBERLAND & NEWCASTLE									
Elementary	20.06	-	-	-	-	-	-	20.06	-
Secondary	229.97	149.01	-	-	9.85	-	-	388.82	-
PRESCOTT & RUSSELL									
Elementary	56.94	2.06	-	64.00	-	-	-	123.00	-
Secondary	-	82.91	-	41.00	-	-	-	123.91	165.01
RENFREW									
Elementary	107.40	25.33	-	64.00	-	-	-	196.73	7.76
Secondary	251.08	219.60	-	41.00	-	11.25	-	522.93	58.94
SAULT STE MARIE									
Elementary	-	-	194.00	97.00	-	-	-	291.00	78.29
Secondary	201.52	149.68	247.00	61.00	-	-	-	659.20	49.88
SIMCOE									
Elementary	44.32	-	6.00	-	-	-	-	50.32	-
Secondary	281.65	120.96	8.00	-	-	-	-	410.61	-
STORMONT DUNDAS GLENGARRY									
Elementary	69.88	-	-	64.00	-	-	-	133.88	-
Secondary	205.31	291.49	-	41.00	-	-	-	537.80	9.48
SUDBURY									
Elementary	25.56	-	194.00	97.00	-	-	-	316.56	38.17
Secondary	-	44.08	247.00	61.00	-	-	-	352.08	46.99
TIMISKAMING									
Elementary	39.14	110.65	291.00	64.00	-	-	-	504.79	-
Secondary	142.21	247.46	371.00	41.00	-	-	-	801.67	144.27
TIMMINS									
Elementary	-	27.26	194.00	97.00	-	-	-	318.26	26.20
Secondary	79.28	134.18	247.00	61.00	-	-	90.55	612.01	-

TABLE 2
1989 SPECIFIC GRANTS (\$'S PER PUPIL)

(1)	(2) SMALL SCHOOLS	(3) SMALL BOARD	(4) GOODS & SERVICES	(5) COMP. EDUCATION	(6) LANGUAGE INSTRUCTION	(7) MIXED SCHOOLS	(8) TECHNICAL EDUCATION	(9) TOTAL	(10) QUALIFICATIONS & EXPERIENCE
<u>ROMAN CATHOLIC SEPARATE SCHOOL</u>									
WATERLOO									
Elementary	7.12	0.56	-	64.00	-	-	-	71.68	-
Secondary	-	14.44	-	41.00	-	-	-	55.44	-
WELLAND									
Elementary	8.09	-	-	64.00	-	-	-	72.09	106.11
Secondary	-	93.90	-	41.00	-	-	-	134.90	-
WELLINGTON									
Elementary	25.23	35.38	-	-	0.02	-	-	60.63	-
Secondary	-	143.28	-	-	-	-	-	143.28	-
WINDSOR									
Elementary	-	-	-	129.00	3.85	-	-	132.85	73.11
Secondary	-	-	-	82.00	-	-	-	82.00	-
YORK									
Elementary	-	0.04	-	-	35.49	-	-	35.53	-
Secondary	-	3.27	-	-	-	3.83	-	7.10	-
<u>OTTAWA-CARLETON FRENCH LANGUAGE SCHOOL BOARD</u>									
PUBLIC SECTOR									
Elementary	-	113.17	-	49.00	6.16	-	-	168.33	-
Secondary	-	37.28	-	31.00	-	-	-	68.28	-
ROMAN CATHOLIC SECTOR									
Elementary	12.94	-	-	49.00	-	-	-	61.94	-
Secondary	-	135.14	-	31.00	-	-	-	166.14	-

O. Reg. 140/91, s. 3.

MARION BOYD
Minister of Education

Dated at Toronto, this 13th day of March, 1991.

15/91

EDUCATION ACT

O. Reg. 141/91.

General Legislative Grants, 1990.

Made—March 12th, 1991.

Approved—March 28th, 1991.

Filed—March 28th, 1991.

REGULATION TO AMEND
ONTARIO REGULATION 141/90
MADE UNDER THE
EDUCATION ACT

1.—(1) Clause (c) of the definition of “current cost of operating” in section 1 of Ontario Regulation 141/90 is amended by striking out “and” at the end of subclause (xv) and by adding the following subclause:

- (xvii) in the case of The Ottawa-Carleton French-language School Board, temporary grants provided to the public sector and the Roman Catholic sector under Order in

Council 1271/90 made on the 17th day of May, 1990 under subsection 46 (3) of the *Ottawa-Carleton French-Language School Board Act, 1988*, and

(2) Clause (a) of the definition of “eligible sum for full-day kindergarten” in section 1 is revoked and the following substituted:

- (a) the sum of \$3,597.50 and the amounts per pupil that are set out in Columns 10 and 11 of Table 2 opposite the name of the board in Column 1 of Table 2,

(3) The definition of A in the definition of “maximum recognized day school O.E.” in section 1 is revoked and the following substituted:

A = the product of the portion of the day school A.D.E. for grant purposes and \$3,550 in the case of elementary school pupils and \$4,455 in the case of secondary school pupils,

(4) Clause (c) of the definition “R.O.E.” in section 1 is revoked and the following substituted:

- (c) the product of the portion of the summer school A.D.E. for grant purposes that is in respect of elementary school pupils of the board and \$3,550,

(5) Clause (a) of the definition of "recognized tuition fees" in section 1 is revoked and the following substituted:

- (a) the product of \$3,550 in the case of an elementary school pupil or \$4,455 in the case of a secondary school pupil and the number by which the A.D.E. in respect of resident-external pupils of the board is increased for fee purposes by the application of factors determined under subsection 3 (4) of Ontario Regulation 142/90 (Calculation of Fees for Pupils), and

(6) The definition of C in clause (b) of the definition of "recognized tuition fees" in section 1 is revoked and the following substituted:

C = the sum of \$4,472 and the amounts per pupil that are set out in Columns 10 and 11 of Table 2 opposite the name of the board in Column 1 of Table 2,

2. Subclause (iii) of the definition of Q in clause 8 (a) of the Regulation is revoked and the following substituted:

- (iii) the product of the portion of the A.D.E. calculated under section 2 of Ontario Regulation 127/85 (Calculation of Average Daily Enrolment) that is in respect of resident-external pupils of the board, and the sum of \$3,550 in the case of an elementary school pupil or \$4,455 in the case of a secondary school pupil and the amount per pupil that is set out in Column 10 of Table 2 opposite the name of the board in Column 1 of Table 2; and

3. Subclause 28 (b) (i) of the Regulation is revoked and the following substituted:

- (i) \$3,550 in the case of elementary school pupils other than elementary school pupils enrolled in courses for which credit is granted in the intermediate division or \$4,455 in the case of secondary school pupils or elementary school pupils enrolled in courses for which credit is granted in the intermediate division,

4. Table 3 of the Regulation is revoked and the following substituted:

Table 3
SPECIAL ASSISTANCE FOR EN BLOC TRANSFER

Column 1	Column 2
Name of Board	<u>Special Assistance</u> <u>For En Bloc</u> <u>Transfer</u>
Essex County Board of Education	\$124,000
Hearst Board of Education	150,000
Kapuskasing Board of Education	61,310
Nipissing Board of Education	126,000
Prescott and Russell County Board of Education	400,000
Stormont, Dundas and Glengarry County Board of Education	350,000
Timiskaming Board of Education	105,390
Timmins Board of Education	321,600
Carleton Board of Education	
– Elementary Schools	45,440
– Secondary Schools	152,320
Carleton Roman Catholic Separate School Board	
– Elementary Schools	473,080
– Secondary Schools	–
Ottawa Board of Education	
– Elementary Schools	77,440
– Secondary Schools	168,480
Ottawa Roman Catholic Separate School Board	
– Elementary Schools	322,040
– Secondary Schools	136,560

O. Reg. 141/90, s. 4.

MARION BOYD
Minister of Education

Dated at Toronto, this 12th day of March, 1991.

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