

Manitoba Electrical Code

Regulation 73/2009
Registered April 8, 2009

Definition

1 In this regulation, "**Code**" means the *Manitoba Electrical Code*, Tenth Edition, 2009. It consists of the *Canadian Electrical Code, Part I*, 21st edition, CSA Standard C22.1-09, as amended by the Schedule to this regulation.

Code adopted with amendments

2 The standards set out in the Code govern the construction, installation, maintenance, repair, extension, alteration and use of electric wiring and related facilities using or intended to use power supplied by Manitoba Hydro, except within The City of Winnipeg and mines and quarries as defined in *The Workplace Safety and Health Act*.

Repeal

3 Manitoba Regulation 81/2006 is repealed.

Coming into force

4 This regulation comes into force on June 1, 2009.

March 19, 2009

THE MANITOBA HYDRO-ELECTRIC BOARD:

V.H. Schroeder
Chair

SCHEDULE
AMENDMENTS TO
THE CANADIAN ELECTRICAL CODE, PART I

Amendments to Section 0 — Object, Scope, and Definitions

Section 0 amended

1 Section 0 of the Code is amended

(a) in the definition "Approved", by adding the following after paragraph (b):

- (c) the equipment has been given special acceptance by Manitoba Hydro,
or
- (d) the equipment has been given special acceptance by the Minister of
Labour and Immigration for Manitoba;

(b) by adding the following definition:

Chief Electrical Inspector means the person designated by Manitoba
Hydro as the chief electrical inspector;

(c) by replacing the definition "Inspection department" with the following:

Inspection department means Manitoba Hydro;

Amendments to Section 2 — General Rules

Rule 2-004 replaced

2 Rule 2-004 is replaced with the following:

2-004 Application for Inspection

- (1) No electrical work with respect to installation, alteration, repair or extension
of any electrical equipment shall commence until an electrical permit is issued
by the inspection department.
- (2) Notwithstanding Subrule (1), a person licensed under *The Electricians' Licence
Act* (Manitoba) is not required to have an electrical permit for the following
electrical work:
 - (a) the replacement or repair of wiring devices with an electrical rating no
greater than 30 amperes, 150 volts to ground and not associated with a
location as described by section 18 or 20 of the Code; or
 - (b) the replacement or repair of electrical equipment not exceeding 30
amperes, 150 volts to ground and associated with a dwelling unit; or

- (c) electrical installations:
 - (i) where the cost of labour and materials (excluding the cost of utilization equipment supplied by the circuitry) does not exceed one hundred dollars (\$100.00) as determined by the inspection department in accordance with the current Schedule of Electrical Permit Fees; and
 - (ii) which are not associated with a hazardous location as described by sections 18 or 20 of the Code; and
 - (iii) which are not part of a consumers' service; and
 - (iv) which do not involve the replacement or addition of distribution panels, fusible switches, motor controllers and similar equipment.
- (3) An electrical permit may be issued to:
 - (a) a person licensed under *The Electricians' Licence Act* (Manitoba) to perform such work as is permitted by the person's licence; or
 - (b) an allied trades person licensed by the Province of Manitoba to perform such electrical work as is permitted by the person's licence; or
 - (c) a qualified person as defined in the *Canada Occupational Safety and Health Regulations* under the *Canada Labour Code* for the purposes of work on premises regulated by those regulations; or
 - (d) an owner of residential or farm premises where:
 - (i) the applicant occupies or will occupy the premises as a dwelling, or the premises are part of the farm operation; and
 - (ii) the applicant provides electrical plans which have been examined and accepted by the inspection department; and
 - (iii) the premises, if a building, stands alone or is separated from any other occupancy or other part of the building by a fire wall or fire separation; and
 - (iv) the work to be performed is not in a hazardous location, as defined in the Code; and
 - (v) the electrical rating of the installation does not exceed 150 volts to ground, single phase and 200 amperes.

- (4) An annual electrical permit may be issued for electrical work of a routine nature in connection with the maintenance or operation of a building or plant where such work is required to be performed at frequent intervals and where the owner or occupant of the building or plant employs his own electricians for that purpose, if the applicant agrees to:
 - (a) keep a record of all such work as the work is performed; and
 - (b) produce this record to the inspection department upon request; and
 - (c) remit to the inspection department such fees as are prescribed by the inspection department upon application for an annual permit; and
 - (d) pay in full any outstanding fees due to a change in status of the building or plant before the permit is renewed.
- (5) An application for an electrical permit shall be made to the inspection department giving the location and ownership of the premises in, upon or about which electrical work is to be done, the purpose of the work, details of the installation as required by Rule 2-014 and any other particulars required by the inspection department.
- (6) If an application is approved by the inspection department an electrical permit will be issued.
- (7) The inspection department may refuse to issue an electrical permit if:
 - (a) electrical work done previously by the applicant has not been completed to the satisfaction of the inspection department; or
 - (b) there are outstanding fees on previous work done by the applicant.
- (8) A permittee shall notify the inspection department as soon as the electrical work authorized by the electrical permit is completed or when an inspection is required.
- (9) At the request of the permittee, or in other circumstances determined by the Chief Electrical Inspector, the inspection department may inspect the electrical installation pursuant to the electrical permit. If the installation conforms to the Code and the appropriate fees have been paid in full in accordance with the current Schedule of Electrical Permit Fees, the inspection department will, on request, issue a Certificate of Approval.
- (10) The Chief Electrical Inspector may establish terms and conditions for the registration of electricians and electrical contractors for the purposes of the Code, based on criteria including but not limited to safety and compliance with the Code. The inspection department may elect to forgo inspections where the permittee or an electrician employed by the permittee has been registered by the inspection department. An electrician shall:
 - (a) notify the inspection department when an installation has been completed; and

- (b) supply the inspection department with a signed declaration that the installation complies with the Code.

The inspection department reserves the right to audit and inspect installations by registered electricians for compliance with the Code and the Schedule of Electrical Permit Fees.

- (11) The inspection department may direct the alteration or repair of an existing electrical installation that does not conform with the requirements of the Code.
- (12) Where an application for an electrical permit is refused or where a permittee does not agree with an electrical inspection report, defect notice or interpretation of Code rules issued on any particular installation, an appeal may be made in writing to the office of the Chief Electrical Inspector of Manitoba Hydro.
- (13) The inspection department may:
 - (a) prohibit the use of an installation until inspected, tested and approved;
 - (b) direct the permittee to carry out and produce results of tests on equipment as considered necessary to ensure that the installation is properly installed.
- (14) An electrical permit will expire 90 days from the date of issuance unless the installation authorized by the electrical permit is commenced or the inspection department, in its discretion, grants an extension.
- (15) An electrical permit will expire 12 calendar months from the date of issuance unless the installation authorized by the electrical permit is not completed and the inspection department, in its discretion, grants an extension.
- (16) The issuance of an electrical permit does not obligate the owner of the premises to have the work done by the permittee.

Rule 2-006 struck out

3 Rule 2-006 (Application for Inspection) is struck out.

Rule 2-008 replaced

4 Rule 2-008 (Fees) is replaced with the following:

2-008 Fees

- (1) The amount and manner of payment of any fee payable for electrical permits or inspection of electrical installations are as prescribed by the inspection department in the Schedule of Electrical Permit Fees.

- (2) Unless an electrical permit fee is payable in accordance with the terms and conditions established under Subrule (3) for pre-authorized monthly billing accounts, an electrical permit fee shall be paid in full before an electrical permit is issued.
- (3) Manitoba Hydro may establish terms and conditions for pre-authorized monthly billing accounts for the payment of electrical permit fees.
- (4) A cheque or money order in payment of electrical permit or inspection fees shall be made payable to Manitoba Hydro.
- (5) The inspection department has the right at any time to make adjustments in the electrical permit fee payable as a result of additions or deletions to the work specified in the electrical permit or to correct errors in the calculation of fees made at the time the electrical permit was issued.
- (6) The inspection department will refund any fee paid for an unused electrical permit if application is made within one year of the date of the issuance of the electrical permit, but reserves the right to deduct an amount equal to any costs and expenses that it incurs in connection therewith and will in any case deduct an amount equal to the current minimum fee.

Rule 2-010 struck out

5 Rule 2-010 (Posting of Permit) is struck out.

Rule 2-014 replaced

6 Rule 2-014 (Plans and Specifications) is replaced with the following:

2-014 Plans and Specifications

- (1) Plans and specifications are required for:
 - (a) electrical installations where:
 - (i) the installation is carried out by an owner of farm or residential premises; or
 - (ii) the ampacity of the service entrance equipment exceeds 200 amperes single phase or the supply service is multi-phase; or
 - (iii) the installation operates at voltages in excess of 750 volts; and
 - (b) installations covered by section 18, 20, 22, 24 or 36 of the Code; and
 - (c) such other installations as may be prescribed by the inspection department.

- (2) Plans and specifications required by Subrule (1) shall be submitted to the inspection department for acceptance before an electrical permit may be issued.
- (3) Plans and specifications shall be prepared and signed by, and bear the seal of, a registered professional engineer
 - (a) when they are required by Subrule (1)(b) for an installation covered by section 18, 20, 24 or 36; or
 - (b) if the inspection department considers them necessary for any other installation.
- (4) The responsible professional engineer for a large or complex installation, as determined by the Chief Electrical Inspector, shall submit a letter to the inspection department stating his or her responsibility for the inspection of construction for the installation to ensure conformity with the approved plans and specifications. Note: Subrule 2-004(1) still applies.
- (5) Upon completion of an installation under Subrule (4), the responsible professional engineer shall submit a certificate stating:

"I hereby certify that I have inspected the installation for compliance to the approved plans and specifications and find the installation in compliance with the requirements of the *Manitoba Electrical Code*."
- (6) Where current transformer revenue metering is required for an installation, plans and a list of loads, as required by the Manitoba Hydro Customer Metering Standards, are required to be submitted before the revenue metering will be ordered by the inspection department.

Rule 2-025 added

7 The following is added after Rule 2-024:

2-025 Special Acceptance Inspection

A special acceptance inspection may be made of electrical equipment that is not approved by or does not bear the approval mark of an accredited certification organization. In general, this applies to electrical equipment:

- (a) of other than a regular line of manufacture; or
- (b) manufactured or produced singly or in small quantities; or
- (c) built to a customer's order.

Rule 2-030 replaced

8 Rule 2-030 (Deviation or Postponement) is replaced with the following:

2-030 Deviation or Postponement

Notwithstanding Subrule 2-004(9), the inspection department may by special permission approve an installation that does not conform to the standards established by this Code where, in the opinion of the inspection department, the installation provides a standard of safety equivalent to the standard provided by the Code. The special permission shall specify the aspects of the installation that do not conform to the Code and the equivalent electrical requirements.

Amendment to Section 6 — Services and Service Equipment**Rule 6-400 amended**

9 Rule 6-400 (Metering Equipment) is amended by renumbering it as Rule 6-400(1) and by adding the following as Subrule (2):

- (2) For determining the type of metering equipment required by the supply authority, reference shall be made to supply authority metering standards which shall be amendatory or additional to Rules 6-402 to 6-412.

Amendment to Section 10 — Grounding and Bonding**Subrule 10-700(2) amended**

10 Paragraph (a) of Subrule 10-700(2) (Grounding Electrodes) is replaced with the following:

- (a) in the case of a rod grounding electrode, consist of 2 rod electrodes (except for a chemically charged electrode where only one need be installed) that are spaced no less than 3 m apart, and are
- (i) bonded together with a grounding conductor sized in accordance with Table 17; and
 - (ii) driven to the full length of the rod; and
 - (iii) copper clad; and
 - (iv) not less than 15.8 mm in diameter; or

Amendment to Section 12 — Wiring Methods**Rule 12-2208 replaced**

11 Rule 12-2208 (Provisions for Bonding) is replaced with the following:

12-2208 Provisions for Bonding

Metal cable trays shall be adequately bonded at intervals not exceeding 15 m and the size of bonding conductors shall be based on the size of the largest ungrounded conductor or equivalent for multiple conductors carried by the cable tray in accordance with Rule 10-814.

Amendments to Section 26 — Installation of Electrical Equipment**Rule 26-008 replaced**

12 Rule 26-008 (Sprinklered Equipment) is replaced with the following:

26-008 Sprinklered Equipment

Electrical service and distribution equipment with ventilation openings located in sprinklered buildings or spaces shall be protected where needed by noncombustible hoods or shields so arranged as to minimize interference with the sprinkler equipment.

Rule 26-700 amended

13 Rule 26-700 (Receptacles, General) is amended by adding the following after Subrule (11):

(12) Where a sump is required by the Winnipeg Building By-law or the Manitoba Building Code for the control of water from a subsurface drainage (weeping tile) system:

- (a) a receptacle shall be installed for the connection of the sump pump; and
- (b) the receptacle for the sump pump shall be supplied from a branch circuit that supplies no other outlets or equipment.

Rule 26-714 amended

14 Rule 26-714 (Receptacles in Single Dwellings) is amended by adding "and" at the end of paragraph (b) and adding the following after paragraph (b):

- (c) at least one receptacle shall be provided for each driveway.

Rule 26-724 amended

15 Rule 26-724 (Branch Circuits for Single Dwelling) is amended by adding "and" at the end of paragraph (b) and adding the following after paragraph (b):

- (c) at least one branch circuit shall be provided solely for the receptacle(s) provided for each driveway as required by paragraph 26-714(c).

Amendment to Section 30 — Installation of Lighting Equipment

Rule 30-504 amended

16 Rule 30-504 (Stairways) is amended by adding the following after Subrule (3):

- (4) Notwithstanding Subrule (3) and Appendix G, provisions for 3-way switches must be installed for stairway lighting to basements.

Amendment to Section 76 — Temporary Wiring

Rule 76-006 amended

17 Rule 76-006 (Service Entrance Equipment) is amended by replacing paragraph (d) with the following:

- (d) for services not exceeding 200 amperes, on a pole, or on a solid wood post measuring at least 89 mm x 150 mm nominal and adequately braced; or
- (e) for services exceeding 200 amperes, on a substantial pole structure; or
- (f) for services supplied from underground distribution, on an adequately braced post.