

Canadian Electrical Code

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This introductory article provides information about Canadian electrical standards. Information is reprinted/paraphrased with permission from International Electrical Inspectors Association (IAEI).¹ The description of Canadian standards is of interest both as basis of authority for Canadian home inspectors and in the US as an evocative model for standards.

Canadian Standards Association

The Canadian Standards Association (CSA) is part of the Canadian National Standards System (CNS).² All CSA standards are developed on a voluntary consensus basis. This procedure requires that all points of view be examined and that valid minority positions be accommodated.

The Canadian Electrical Code

The Canadian Electrical Code (CEC), Part I, covers the installation of electrical products and equipment across Canada. It is among the best-known of Canadian standards which have been accepted by various regulatory authorities. It is the Canadian equivalent of the National Electrical Code (NEC) produced in the United States. The CEC has been adopted by the provinces and territories under various acts. For example in Ontario the "Power Corporation Act and Regulations" gives Ontario Hydro the authority to enforce the regulations with respect to the sale and installation of electrical products. By contrast in the US power utilities are privately owned and the regulation of sale and installation of electrical products is through independent government agencies.

Readers may wonder if this arrangement provides less rigorous code enforcement. Code provisions and inspection experience suggest that the opposite may be the case. For example, Ontario's Electrical Safety Code requirements specify:

1. The Electrical Safety Code, Ontario Regulation 183/84 requires that all electrical equipment must be approved *before*

it may be lawfully advertised, displayed, offered for sale, sold, or otherwise disposed of or used in the Province of Ontario.

2. It is, therefore, the responsibility of each merchant to ensure that all electrical equipment in, on, or about his booth comply with the above regulation. This includes electrical merchandise as well as lighting and display equipment.

3. Electrical equipment for which approval is sought shall be submitted to the Canadian Standards Association, 178 Rexdale Blvd., Ontario, M9W 1R3. [US submissions to Underwriters Laboratories (UL) are voluntary.] The approval of this association is acceptable to all electrical inspection authorities in Canada.

4. Appropriate approval markings (CSA monogram or label) are required by the CSA to appear on each electrical device. If such markings are missing the device must be considered unapproved and therefore subject to special inspection.

5. To display or sell electrical equipment which is not now certified by CSA, one must first submit the equipment to Ontario Hydro Corporation's Electrical Inspection Department for approval by means of their Special Inspection Service.

6. Failure to comply could result in the equipment being refused connection to the source of electrical supply and may even be ordered removed from display.

References

Canadian Electrical Code Handbook, a user's guide to the CE Code, Part I, is available from the Canadian Standards Association, 416-747-4044.

Further information and CSA Seminars: contact the Canadian Standards Association, 178 Rexdale Blvd., Rexdale, Ontario, 416-747-4082 or 416-747-2483.

1 "Canadian Standards Association," *IAEI News*, November/December 1990, p. 10-11.

2 CNS is comprised of organizations concerned with voluntary standardization of written standards themselves, with certification, and with testing. The Standards Council of Canada coordinates these activities. The Standards Council was established in 1970 by an Act of Parliament. It coordinates the development of national Canadian standards. It also represents Canada at the two world standards organizations, the International Electro-technical Commission (IEC) and the International Organization for Standardization (ISO). Forty-two countries participate in IEC and ISO has 91 participating countries. ISO develops standards in all areas except electrical.

3 CSA has been involved in certification activities since 1940 when testing and inspecting services were transferred from the Ontario Hydro Electric Power Commission to CSA.