

BULLETIN 2000-026-EL

Revised April 22, 2016

APPLICATIONS FOR ELECTRICAL PERMITS TO DO ELECTRICAL WORK IN HAZARDOUS LOCATIONS

The intent of this bulletin is to clarify the requirements of applications for electrical permits to do electrical work in the hazardous locations.

BACKGROUND

“Hazardous location” is defined by Section 0 of the Canadian Electrical Code, Part I (CEC), Section 18 of the 2015 CEC has been rewritten, Rule 18-004 requires hazardous locations to be classified as explosive gas atmospheres or explosive dust atmospheres, Rule 18-006 requires explosive gas atmospheres to be divided into Zones 0, 1, and 2; and Rule 18-008 requires explosive dust atmospheres to be divided into Zones 20, 21, and 22. Rules 18-050 contains new Group designations and Rules 18-190 to 18-254 require new types of protection for the electrical equipment installed in the hazardous locations.

REQUIREMENTS

No applications for electrical permits to install electrical equipment in hazardous locations will be acceptable without the electrical plans. Submission of electrical plans is also required where the installation of wiring and equipment in hazardous areas as defined in Section 20. These plans shall be sealed and signed by the Registered Professional responsible for the electrical design. The acceptance of the electrical plans must be obtained from the electrical plan examiner’s office in conformance with CEC Rule 2-014. Electrical contractor must not commence any installation in hazardous locations without first obtaining a valid permit.

NOTES

- Table J1.2 of Appendix J contains information for the type of equipment permitted or type of protection acceptable for use in the Zone and Division systems.
- The new Appendix L provides guidance for the engineering guidelines for determining hazardous areas classifications.
- In addition to the definitions of Rule 18-002, the new definition of “Explosive dust atmosphere” has been amended to include the wording of “For certainty, dust, fibres, or flyings arising from the processing or handling of wood, when mixed with air under atmospheric conditions, are conclusively deemed to be flammable substances that, after ignition, permit self-sustaining propagation for the purposes of this definition.” (Refer to Safety Standard Act - Ministerial Order No. M 392)

Examples of hazardous locations (for the convenience of the electrical permit clerks) are as follows:

- Finishing processes (spray booths, painting areas), flammable liquid and gas dispensing stations, propane and compressed natural gas refueling and dispensing facilities, commercial repair

garages, bulk storage plants for gasoline or other volatile flammable liquids, aircraft hangars and other similar locations in which an explosive gas atmosphere is present, or may be present, in the air in quantities that require special precautions for the construction, installation, and use of electrical equipment.

- Working areas of grain handling and storage plants, rooms containing grinders, cleaners, graders, scalpers, dust-producing machinery in grain processing plants and all similar locations in which combustible dusts are present, or may be present, in the form of clouds or layers in quantities to require special precautions for the construction, installation, and operation of electrical equipment.
- Combustible fibre manufacturing and processing plants, clothing manufacturing plants, woodworking plants and other similar locations in which combustible fibres or flyings are manufactured, handled, or stored in a manner that will require special precautions for the construction, installation, and operation of electrical equipment.

On the application for a permit that covers the electrical work in hazardous locations, a box indicating the "Electrical Equipment and Wiring in Hazardous Location" must be checked by the electrical contractor.

(Original signed by)

W. White
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