

October 1, 2007

VAR-CEC-18-092(2), 18-108(2), 18-158(2), J18-108(2), J18-158(2) [rev-0]

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VARIANCE CANADIAN ELECTRICAL CODE

SUBJECT: Rules 18-092(2), 18-108(2), 18-158(2), J18-108(2), J18-158(2)
RE: Annunciation (make obvious) requirements

Preamble

Recent changes to the Canadian Electrical Code rules 18-092(2), 18-108(2), 18-158(2), J18-108(2) and J18-158(2) state:

- 2) Where secondary seals are installed, drains, vents or other devices intended to make primary seal leakage obvious shall be installed.

Rules 18-092(2), 18-108(2), 18-158(2), J18-108(2) and J18-158(2) of the Canadian Electrical Code all require that where field installed secondary seals are present, primary seal failure must be made obvious. The intent of these rules is not made clear in either the CEC Handbook or the Appendix 'B' notes to the rules.

As the CEC is a Safety standard for the installation and maintenance of electrical equipment it can be assumed that the rationale behind the above rules provides for both a safety requirement, warning personnel of pressures present within the device, and an operational requirement, identifying when a device has failed.

Additional requirements, to ensure worker safety, are needed in situations where the 'make obvious' feature of the installation goes unnoticed. Situations where the primary seal failure was not substantial enough to provide an 'audible whistle' or 'visible leakage' or the remote detection went unnoticed by maintenance personnel. A cautionary label is considered as an effective method to alerting workers of potential hazards.

Variance

A cautionary label, installed according to the following conditions, is considered as providing an equivalent or greater degree of safety to the Canadian Electrical Code rules 18-092(2), 18-108(2), 18-158(2), J18-108(2) and J18-158(2) regarding making primary seal leakage obvious.

- the cautionary label must be placed prominently at the device with the secondary seal;
- the cautionary label states “CAUTION – PRESSURE MAY BE PRESENT ON THE INSTRUMENT SIDE OF THE SECONDARY SEAL” or equivalent;
- the cautionary label shall be of a permanent nature;
- the cautionary label is only required where the annunciation, “make obvious” requirement is not apparent.

Note: Devices exposed to Flammable Process fluids under pressure may be installed in Non-Hazardous areas, therefore owners/users should be aware that the requirements listed above would also apply to end devices installed in Non-Hazardous areas.