

BULLETIN 2000-044-EL

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**GROUND FAULT PROTECTION OF HEAT-TRACING CABLES FOR PIPE
AND SOIL HEATING, ICE OR SNOW MELTING ON ROOFS OR
CONCRETE OR ASPHALT SURFACES AND SIMILAR
APPLICATIONS OTHER THAN SPACE HEATING**

The intent of this bulletin is to clarify the ground fault protection requirements for the electrical heating cable sets and heating panel sets that are installed for the purpose of electric surface heating in conformance with Rule 62-300 of the Canadian Electrical Code, Part I (CEC).

BACKGROUND

CEC Rule 62-300 mandates ground fault protection for heat-tracing cables. This requirement has been introduced into the CEC due to fires that were attributed to damaged heat-tracing cables. Although the City of Vancouver had mandated that ground fault protection of heat-tracing cables that must be installed on standpipe and sprinkler piping since 1993 (Bulletin 2000-016-EL/PL/SP), Rule 62-300(4) now requires that all electric heating cable sets and heating panel sets used in surface heating systems must be equipped with ground fault protection unless these heating cable sets and heating panel sets are installed in the industrial establishments in conformance with Rule 62-300(5).

REQUIREMENTS

1. Ground fault protection of a heat-tracing system installed on the standpipe and sprinkler piping must conform to the applicable requirements of Bulletin 2000-016-EL/PL/SP.
2. Each heat-tracing cable installed for purposes other than described in Bulletin 2000-016-EL/PL/SP must be supplied by a dedicated branch circuit.
3. The circuit breaker protecting a dedicated heat-tracing branch circuit described in item 2 above must be provided with the ground fault protection with a ground fault setting that is sufficient to allow normal operation of the heater in conformance with Rule 62-300(4), notwithstanding Item (5) requirements of this rule. Ground fault protection shall be set at not more than 30 mA and shall comply with the manufacturer's instructions.

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