

January, 2013
BUILDING DIVISION

FREEZE PROTECTION OF STANDPIPES AND SPRINKLER PIPING

Where standpipes and sprinkler piping is subject to freezing, the piping systems must be protected against freezing by reliable means (NFPA 13 and NFPA 14 requirements). Electric heat trace cables are considered acceptable for providing reliable freeze protection if the following conditions are met:

1. The Heating Cable is specifically approved for the purpose (i.e. Mineral Insulated Cable; RayChem Type XL-CR) and is capable of maintaining the piping system at a temperature of 4°C minimum.
2. The installation of the piping system is fully completed and tested prior to the heating cable installation.
3. The manufacturer's installation and testing instructions are followed exactly and a copy of the instructions are posted in the sprinkler valve room.
4. The heating cable installation is performed by a Registered Electrical Contractor under a valid Electrical Permit and inspections requested before any portion of the piping system is insulated.
5. The heating cable system is continuously monitored through the building fire alarm system to provide a trouble indication for loss of supply and/or control voltage, ground fault, loss of continuity, and temperature control failure.

Notes:

- (a) A non-latching trouble circuit is recommended to avoid the need to manually reset the fire alarm following a power outage;
 - (b) If no fire alarm system is required/installed, a warning system is to be provided with audible and visual features; and
 - (c) Ground fault trip setting to be at 30 ma or to manufacturer's recommendations.
6. The heating cable is supplied by emergency power where the building falls within the scope of BC Building Code Section 3.2.6 "Additional Requirements for High Buildings".

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