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LOCKING DEVICES FOR ELECTRICAL DISCONNECTING MEANS

This Bulletin clarifies locking requirements for disconnecting means serving fire and life safety equipment (in order to prevent unauthorized operation).

BACKGROUND

Sections 32 and 46 of the Canadian Electrical Code (CEC), Part I govern the installation requirements for special types of equipment, which in addition to being electrical equipment, are also fire and life safety equipment regulated by the provisions of the Vancouver Building By-law (VBBL).

In addition to electrical safety requirements, rules of these particular Sections of the CEC deal with conditions that regulate performance and reliability of this electrically connected fire and life safety equipment.

For example:

- a. Rule 32-108(2) mandates that the disconnecting means for the separate circuit supplying a fire alarm system must be colored "red" and be "lockable in the ON position".
- b. Section 32 also references ULC standard S 524 which requires the disconnecting means for an emergency generator to "be fitted with a locking device to prevent unauthorized operation" (see Clause 3.2.4.3 of the ULC S 524).
- c. Disconnecting means for a fire pump described in Rules 32-200 to 32-212 of the CEC must also be "lockable in closed position" (see Article 6-3.2.2.3(2) of the NFPA 20).
- d. Rule 46-206(2) requires that "the branch circuit overcurrent devices shall be accessible only to authorized persons".

Appendix G of the CEC provides references to the VBBL requirements with respect to other particular electrical equipment that must reliably operate in the event of life and fire emergency. Such electrically connected equipment includes emergency generators, fire alarm systems, exit signs, emergency lighting, fire pumps, fire fighters' elevators, smoke control and smoke venting fans, motorized smoke and fire dampers, kitchen fire suppression systems, heat tracing, sprinkler and standpipe systems.

Some of these fans and dampers are located in public areas such as parking garages (i.e. smoke venting fans), and disconnecting means for this life safety equipment may be subjected to unauthorized access and operation by the public.

The intent of the CEC, VBBL and other related Standards with respect to the uninterrupted operation of this fire and life safety equipment could be compromised if the disconnecting means for this equipment is subjected to tampering.

RULING

All disconnecting means that are provided for the electrically operated fire and life safety equipment such as fire dampers, smoke control and smoke venting fans, etcetera and which are installed in locations accessible to the public, shall be lockable in the closed ("ON") position in order to prevent unauthorized operation.

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