

BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing
AIBC, EGBC, BOABC

File No: 18-0050

INTERPRETATION

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Interpretation Date: October 20, 2020

Building Code Edition: BC Building Code 2018

Subject: Protection of Conductors for Firefighters' Elevators

Keywords: Firefighters' Elevators, Emergency Conductors

Building Code Reference(s): 3.2.6.5.(6), 3.2.7.10.(1), 3.2.7.10.(5)

Question:

In a high building, is protection from fire required for both normal and emergency conductors that provide power for the firefighters' elevator(s)?

Interpretation:

No.

Article 3.2.6.5 includes requirements for an elevator for use by firefighters in a high building. Sentence 3.2.6.5.(6) states that electrical conductors for operation of this elevator shall be “ (a) installed in service spaces conforming to Section 3.6 that do not contain other combustible material, or (b) protected against exposure to fire from the service entrance of the emergency power supply, or the normal service entrance of the normal power supply, to the equipment served...”.

Clause (b) provides the option of protecting either the emergency power supply or the normal power supply.

However, Subclause 3.2.7.10.(1)(a)(iii) requires protection of electrical and emergency conductors serving emergency equipment within the scope of Article 3.2.6.2 to 3.2.6.8. Since the firefighters' elevator is required by Article 3.2.6.5, it requires the stated protection.



Patrick Shek, P.Eng., CP, FEC, Committee Chair

The views expressed are the consensus of the joint committee with members representing AIBC, EGBC and BOABC, which form the BC Building Code Interpretation Committee. The Building and Safety Standards Branch, Province of BC and the City of Vancouver participate in the committee's proceedings with respect to interpretations of the BC Building Code. The purpose of the committee is to encourage uniform province wide interpretation of the BC Building Code. These views should not be considered as the official interpretation of legislated requirements based on the BC Building Code, as final responsibility for an interpretation rests with the local *Authority Having Jurisdiction*. The views of the joint committee should not be construed as legal advice.

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Sentence 3.2.7.10.(1) refers to Sentences (2) to (11) for the required protection. Other than for exceptions that are not applicable to this question, Sentence 3.2.7.10.(5) states that the electrical conductors referred to in Sentence (1) are those that extend from the source of emergency power to (a) the equipment served or (b) the distribution equipment supplying power to the equipment served, if both are in the same room. This Sentence refers only to the conductors that extend from the source of emergency power.

This protection will also comply with the specific requirement of Clause 3.2.6.5.(6)(b) for protection of either the emergency power supply or the normal power supply. Because the emergency power supply requires protection in accordance with Sentence 3.2.7.10.(1), there is no need to protect the normal power supply.

This requires the voltage and frequency relays in the automatic transfer switch to initiate generator operation when those relays do not sense adequate characteristics of the required normal power supply source. As such, the emergency power system is required to activate if the normal power supply to the elevators is lost due to failure or destruction of the normal power cables, even if normal power is still available for other building systems.



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