

Information Bulletin No. IBE23- 003

March 17, 2023

<u>REVISED_NEW REQUIREMENTS</u> STANDATA 19-EDI-013-19-BCI-031

Firefighters' Emergency Operation for alterations (FEO) <u>www.alberta.ca/elevator-codes-and-standards.aspx</u>

An FEO upgrade is now mandatory when an Alteration to an Elevator involving a *NEW CONTROLLER* is completed. Additional Professional Involvement is also required.

STANDATA 19-EDI-013-19-BCI-031, issued by Municipal Affairs requires that buildings must upgrade elevator systems to include FEO Recall as a minimum, on all alterations involving a NEW CONTROLLER.

Background: Refer to Appendix A

Requirement:

<u>Effective Immediately</u>, AEDARSA (DAO) requires the following submission items in support of the application prior to starting the alteration of FEO:

- A SPECIAL application for Permit of Construction/Alteration for Addition of FEO with supporting documentation and drawings.
 - o (eda. 045.SPECIAL application for FEO Recall)
- Request for Variance with supporting rationale (gap-analysis) with:
 - A declaration by Owner and P. Eng of Record acknowledgement FEO upgrade may not meet current Elevator Code Requirements including a listing of noncompliant items.
 - (eda. 045.FEO Recall2023 Supplement)
 - Acknowledgement for FULL FEO compliance will be required if any future alterations require compliance to ASME A17.1/CSA B44
- DAO inspection required for Permit issued for FEO ALTERATIONs.
- Any directives issued during inspection will be required for completion Before Operation of the device.
- Applicable Fee's as per AEDARSA FEE Schedule for Special FEO inspection, administration and travel

Application for Permit of construction, sample declaration and fee's associated are available on www.aedarsa.com – elevator page: fees/forms.

Original signed by:

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TYPE: Information | MANDATORY FEO Requirements with Controller Alterations | REGULATION: Elevating Devices Code



Information Bulletin No. IBE23- 003 Appendix A

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Background:

Fire Fighters Emergency Operation (FEO) is not considered a Fire Alarm System (FAS), it is an operating system for the elevator, that interfaces with the FAS in a building. Building and Elevator code requirements must be coordinated to achieve an acceptable FEO system.

There are factors that influence the degree of work that may be necessary to an existing fire alarm system for it to provide the expected level of protection. The factors take into consideration, the need for maintaining or changing systems, that have been installed to "good engineering practice" to prior established codes and standards.

The factors also reflect how fire alarm systems installed under established codes and standards should be regarded when maintenance or changes are contemplated and to what degree the requirements of the most current codes and standards apply in maintenance and changes to the systems.

The NBCC (AE) and ASME A17.1- 2019/CSA B44 -19 are developed as complementary and coordinated documents to minimize the possibility of containing conflicting provisions between each Standard. It is expected that buildings comply with the requirements of BOTH codes.

NBCC (AE) – 2019 edition

Division B Sentence 3.5.2.1. Elevators, Escalators and Dumbwaiters

1) The design, construction, installation and alteration of every elevator, escalator, passenger-elevating device, freight platform lift, and dumbwaiter shall conform to the Elevating Devices Codes Regulation made pursuant to the Safety Codes Act. (See Note A-3.5.2.1. (1).)

Note A-3.5.2.1. (1) Elevator Design. The reference to the Elevating Devices Codes Regulation made pursuant to the Safety Codes Act in this Sentence implies conformance with all requirements of that regulation for elevator cars, hoistways, pits and machine rooms, including restrictions on other services in these areas and detailed design criteria.



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ASME A17.1-19/CSA B44-19 applicable clauses:

- <u>8.7.2.28 Emergency Operations and Signalling Devices</u> (c) Where an alteration is made to, or consists of the addition of, Firefighters' Emergency Operation or Occupant Evacuation Operation, the elevator and all elevators in the same group automatic operation shall conform to 2.27.3 through 2.27.8 and 2.27.11. **OR**
- 8.7.3.31.8 Emergency Operations and Signalling Devices (c) Where an alteration is made to, or consists of the addition of, Firefighters' Emergency Operation, the elevator and all elevators in the same group, automatic operation shall conform to Section 3.27, except 2.27.1 and 2.27.2. OR
- <u>8.7.5.7.28 Emergency Operations and Signaling Devices (c)</u> Where an alteration is made to, or consists of the addition of, Firefighters' Emergency Operation, the elevator and all elevators in the same group automatic operation shall conform to 2.27.3 through 2.27.8.

Elevating Devices Codes Regulation 192/2015 (as of Dec 1, 2022) states:

- 4(1) ASME A17.1-2019/CSA B44: 19 Safety Code for Elevators and Escalators, published by the Canadian Standards Association, as amended or replaced from time to time, is declared in force with the variations set out in subsections (2) to (4).
- (2) Requirement 1.1.3 is struck out and the following is substituted: 1.1.3 Application of Parts: This Code applies to new installations only, except that Part 1, and 5.10, 8.1, 8.6, 8.7, 8.8 and 8.10 apply to both new and existing installations.

AEDARSA(DAO) considers FEO is code compliant when all applicable clauses of 2.27 for Electric elevators or 3.27 for Hydraulic elevators are met.

However, if the installation of some of the requirements of the FEO would entail significant alteration to the building infrastructure, then, alternate solutions could be considered by the AHJ. (with "professional involvement") The method of FEO recall and supporting systems shall not be diminished below what had previously been provided at the time of the original installation or subsequent enhancement of the Recall System.

TYPE: Information

MANDATORY FEO Requirements with Controller Alterations

REGULATION: Elevating Devices Code



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STANDATA 19-EDI-013-19-BCI-031 allows for this approach through:

NBCC (AE) Division A, Article 1.1.1.2. "The authority having jurisdiction (AHJ) may accept an alternative or a proposal that achieves the appropriate level of safety."

The National Building Code-2019 Alberta Edition (NBC(AE)) provides acceptable minimum standards for the construction and installation of life safety systems like FEO including application of these standards when alterations to a building are made. While buildings are subject to the requirements of the building code in force at the time of construction, alterations typically are assessed as new construction and held to the standard of the current building code in force. It is critical that the registered professional involved in the design of the elevator system, particularly where alterations are involved, assesses the compatibility of the alterations with the existing building systems to ensure the life safety systems operate as intended and support the objectives of the building and elevator codes.

To qualify for an alternate solution, the owner, Professional Engineer, and the elevator contractor must make an application in writing to the DAO and AHJ, detailing the rationale for the alternate solution. The DAO and AHJ will review the merit of alternate solution as part of the overall approval of the application for a variance.

This will require coordinated acceptance by AEDARSA – DAO/Elevators and the Local Building Authority - AHJ, satisfying requirements described by the applicable ASME A 17.1/CSA B44 and the NBCC (AE) (current additions).