

524 CMR: BOARD OF ELEVATOR REGULATIONS

524 CMR 36:00 PERSONNEL HOISTS AND EMPLOYEE ELEVATORS ON CONSTRUCTION AND DEMOLITION SITES

The Board incorporates by reference ANSI/ASSE A10.4-2016, *Personnel Hoists and Employee Elevators on Construction and Demolition Sites* with the following Massachusetts modifications for new and existing applicable elevators regulated by 524 CMR.

Note: The Board's incorporation by reference includes the definitions set forth in section 3 of that standard. In the event of any conflict between definitions as provided in said section 3 and those set forth elsewhere in 524 CMR, within 524 CMR 36.00 only, the standard's definitions shall control.

SECTION 3 DEFINITIONS

3.26 Hoist personnel. Delete and replace with:

Hoist personnel. A person or persons who is licensed in accordance with M.G.L. c. 143, § 71B.

3.4 Authorized Personnel. Delete and replace with:

Authorized personnel. A person or persons who is licensed in accordance with M.G.L. c. 146, § 53(a) or who is licensed in accordance with M.G.L. c. 143, § 71B.

3.48 Qualified Person. Add a final paragraph that reads:

Qualified Person. In Massachusetts, registered design professionals (RDPs) shall satisfy requirements set forth by the Massachusetts Division of Professional Licensure for architects and engineers; persons performing work regulated by any of the specialized codes as referenced in 524 CMR 1.05 and M.G.L. c. 143, § 96 shall be licensed accordingly; and personnel physically working on elevator machines and regulated accessories shall be Massachusetts-licensed elevator mechanics.

3.49 Qualified Elevator Inspector (QEI). Delete and replace with:

Qualified Elevator Inspector (QEI). See inspector.

SECTION 17 CAR ENCLOSURES

17.6 Car Top Emergency Access

Add a section:

17.6.5 Notwithstanding the requirements of 17.6.4, operation of the car with top emergency exit open is permissible only when a Massachusetts-licensed elevator mechanic is available to assist in the movement of the elevator. The car shall not be operated at a speed of more than 0.25 m/s (50 ft./min.) when properly opened by authorized personnel. The emergency exit shall be supplied with a firefighter key number 3502 that shall allow only emergency personnel and Massachusetts-licensed elevator mechanics to open the exit.

SECTION 24 OPERATING AND OPERATION DEVICES AND CONTROL EQUIPMENT

24.1.4 Wireless Control. Delete.

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24.1.5 Design Principle for Wireless Control. Delete.

Add a section:

24.2.16 Emergency Control Operation (ECO). Emergency Control Operation (ECO) shall serve the purpose of supporting the fire department in an emergency situation only. Emergency Control Operation shall be installed when fire service phases I and II are not available and fully functional.

Add a section:

24.2.16.1 Upon initial completion of installation and prior to placing each elevator used for construction into service, a representative of the installing company and the operating company shall meet with the fire department having jurisdiction to review the operation of each elevator. The fire department having jurisdiction will leave written proof of the review upon completion and this document will be needed for the elevator to pass the initial inspection as well as subsequent inspections with the Division.

Add a section:

24.2.17 Phase I Emergency Control Operation. A three position key-operated switch shall be installed in front of each elevator or bank of elevators and shall be located at the level determined by the fire department having jurisdiction. The three-position switch shall be labeled "Emergency Control Operation" and its positions marked "RESET," "OFF," and "ON" (in that order), with the "OFF" position as the center position. The "Emergency Control Operation" letters shall be a minimum of 25.4 mm (1.0") high, red in color with a contrasting background.

Add a section:

24.2.17.1 The key used to operate the Phase I ECO switch shall be removable in the "ON" and "OFF" positions.

Add a section:

24.2.17.2 All Phase I ECO switches shall be provided with an illuminated visual signal to indicate when Phase I emergency recall operation is in effect. The visual signal shall maintain illumination until the elevator is returned to normal operation.

Add a section:

24.2.17.3 When an ECO switch is in the "ON" position, a visual beacon lamp, red in color, shall illuminate the elevator cab and an audible signal shall be provided to alert the attendant to return nonstop to the designated level. The visual beacon shall remain illuminated during the entire emergency operation procedure. A visual signal in the car operating panel shall read "EMERGENCY OPERATION - RETURN TO LEVEL []" with the applicable level listed. The audible and COP visual signals shall remain in effect until the elevator is returned to the recall floor and phase II is enacted.

Add a section:

24.2.18 Phase II Emergency Control Operation. A two-position key operated switch, located in the car operating panel, shall override the operator's disable key (see 5.10.7.1) in the event that no operator is on site and/or the unit is not in operation. This two-position switch shall be labeled "Emergency Control Operation" and its positions marked "OFF" and "ON" in that order. The "Emergency Control Operation" letters shall be a minimum of 25.4 mm (1.0") high, red in color with a contrasting background. The key

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used to operate the Phase II ECO switch shall be removable in the “OFF” position only.

Add a section:

24.2.19 **Switch Keys.** The key switches required for ECO Phase I and Phase II shall be operable by the firefighter key number 3502 only (cut side up).

Add a section:

24.2.20 **Removing Elevator from Normal Operation.** When not in use, the construction elevator shall be left at the designated fire control floor or floors and shall also be left with the operators disable key switch (5.10.7.1) in the off position state so that it may be commandeered by a trained firefighter for emergency purposes only. When a construction elevator equipped with emergency operation is inoperable and not able to be left in a disabled state of normal operation without elevator personnel on site, the fire department having jurisdiction shall be notified.

Add a section:

24.2.20.1 An operator’s disable security key switch shall be installed in the car station labeled “OPERATION” and its position shall be marked “OFF” and “ON” in that order. The “Operation” letters shall be a minimum of 12.7mm (0.5") high with a contrasting background. When in the “ON” position, the unit shall run as intended. When in the “OFF” position, the unit shall be disabled. Each unit shall be left in the off position when not fully attended by a licensed elevator mechanic or operating engineer.

Add a section:

24.2.21 **Return to Normal Operation.** Upon completion of use in emergency operation, the responding fire department shall lock out/tag out the construction elevator(s) until a Massachusetts-licensed elevator mechanic arrives on site to review each elevator and is satisfied with the condition of each unit. The Massachusetts-licensed elevator mechanic may then reset the unit(s) and returning the construction elevator(s) to normal operation.

Add a section:

24.2.21.1. An “Emergency Control Reset” momentary reset switch shall be located in the elevator controller for the purpose of returning the elevator to normal operation. The “Emergency Control Reset” switch in the lobby shall be in the reset position for the “Emergency Control Reset” switch in the controller to reset the elevator to normal attendant operation. Only a Massachusetts-licensed elevator mechanic shall reset an elevator used for construction from Emergency Control Operation to normal operation.

SECTION 26 INSPECTIONS AND TESTS OF PERSONNEL HOISTS

26.1.2 Delete and replace with:

26.1.2 **Persons Authorized to Witness New Installation and Acceptance Inspections and Load Tests.** Inspections and load tests shall be performed as defined in 26.1.1 and shall be witnessed by a state elevator inspector employed by the Office. The following tests shall be witnessed by a state elevator inspector employed by the Office:

1. Tests specified in Sections 26.2 and 26.3
2. Any tests which require the following:
 - a. Rendering of any safety devices or equipment temporarily inoperative.
 - b. Removal or resetting of devices or equipment.

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26.4.2 Persons Authorized to Make Periodic Inspections and Tests. Delete and replace with:

26.4.2 Persons Authorized to Make Periodic Inspections and Tests. Periodic inspections and load tests shall be made by a state elevator inspector employed by the Office.

REGULATORY AUTHORITY

524 CMR 36.00: M.G.L. c. 143, §§ 62 through 71G.