

# Elevating and Amusement Devices Safety Division

296 / 22

Date:

Ref. No.:

**Director's Order** 

IN THE MATTER OF:

# THE TECHNICAL STANDARDS AND SAFETY ACT 2000, S.O. 2000, c. 16 - and -ONTARIO REGULATION 209/01 (Elevating Devices) - and the Elevating Devices Code Adoption Document dated June 1, 2001, as amended by ED CAD 295/22

# Subject: Alterations pursuant to A17.1-2019 / CSA B44:19 Safety Code for Elevators and Escalators (as amended by 295 / 22)

# Distribution: Posted on TSSA website

Pursuant to s.14(1) of the *Technical Standards and Safety Act, 2000*, the Director under O. Reg. 209/01 (Elevating Devices) hereby orders, to protect and promote the safety of Ontarians, that pursuant to his power under section 14(2), any device that undergoes an alteration be used only in accordance with the requirements of this Order and that any alterations to any device be conducted in the manner set forth in this Order:

This Order should be read in conjunction with (the applicable Code), the CAD and the Guideline.

# 1.0 <u>Alterations</u>

All references are to the ASME A17.1/CSA B44 except, references denoted with the ★ symbol (as defined in the Guideline) have been prefaced by the relevant **[ASME/B44 code reference]** to assist in locating / referencing the additional requirements in this document and on the alteration checklist.

In addition to section **8.7 Alterations**, the Director orders that alterations (as applicable) comply with the following:

# 1.1 <u>Electric Elevator</u>

# **Alteration to Electric Elevators**

(a) In addition to section 8.7.2.7 Machinery Spaces, Machine Rooms, Control Spaces, and Control Rooms, alterations shall comply with the following:

# [8.7.2.7] **★**1 Elevator Equipment Guarding

The installation of elevator equipment guarding shall conform to the following;

- (a) 2.7.2 maintenance path and clearance
- (b) 2.7.3.4.2 access doors or openings in cage style guarding where full bodily entry is expected shall provide a minimum width of 750 mm (29.5 in.) and a minimum clear height of 2030 mm (80 in.)
- (c) 2.10.1 as a minimum
- (d) guarding shall be openable or removable only by use of common tools
- (e) operating procedures or work instructions shall be provided and available in the location of the guarding, to inform users on how to safely access the equipment for inspection, testing or maintenance
- (f) working clearances in front of electrical control equipment shall not be less than 1000 mm (39 in.) as per CAD requirements 2.2.1 (per Ontario Electrical Safety Code38-005 2(c)) or the permissible clearance required at the time of the original installation.

- (g) access for the operation of the disconnecting means shall be
  - (1) 1000 mm for installations installed under the Ontario Electrical Safety Code 2000 edition or later, or
    (2) 750mm (29.5 in.) for installations installed under Ontario Electrical Safety Code 1998 edition or prior, or
    (3) if less than 750 mm, the existing clearances shall not be further reduced
- (h) installation by a registered contractor (O.Reg 209/01 s.24)
- (i) large or heavy sections of guards that may need to be removed or opened for maintenance access shall be designed to be removed or easily handled by one person.
- (b) In addition to section 8.7.2.8 Electrical Equipment, Wiring, Pipes, and Ducts in Hoistways and Machine Rooms, alterations shall comply with the following:

#### [8.7.2.8] \*1 Change in Drive (Power conversion equipment)

Where a power conversion drive is replaced with a different drive, the following requirements shall apply

- (a) drive should match the motor output (kW / HP), or if greater kW/HP drive provided, drive to be marked "power limited"
- (b) no change in rated speed
- (c) drive fits into existing cabinet or where a drive does not fit into the existing cabinet, the controller / cabinet modifications need approval to SPE-1000 (Field Evaluation)
- (d) drive is certified, or is part of the SPE-1000 field evaluation
- (e) installation is verified for limits of traction
- (f) if regen included but not previously provided an engineer shall confirm suitability, controller modifications approved to SPE-1000 (Field Evaluation)

# (c) In addition to section 8.7.2.10 Entrances and Hoistway Openings, alterations shall comply with the following:

#### [8.7.2.10] **\***1 Removing Service to a Floor

Where service to a floor area is being discontinued, the following requirements shall apply:

- (a) entrances shall be bolted shut
- (b) the related interlock shall be removed from the safety string
- (c) the related floor buttons shall be removed from the car operating station
- (d) 2.11.6.2
- (e) 2.12.7 if the locked-out floor contained the hoistway access switch

# [8.7.2.10] ★2 Addition of Hoistway Door Safety Retainers

The addition of hoistway door safety retainers shall comply with the requirements of 2.11.11.8.

# (d) In addition to section 8.7.2.12 Power Operation of Hoistway Doors, alterations shall comply with the following:

#### [8.7.2.12] **\*1** Replacement of Door Operator

Where a door operator is replaced the replacement shall conform to the applicable requirements of 2.13 and additional requirement to section [8.7.2.15]  $\pm$ 1, or  $\pm$ 2, except the requirements of 2.13.5.3, 2.13.5.5, and 2.13.5.6 do not apply if not previously provided.

# (e) In addition to section 8.7.2.13 Door Reopening Device, alterations shall comply with the following:

### [8.7.2.13] \*1 Replacement of Door Operator

The requirements of 8.7.2.13 also apply where a reopening device for power-operated car doors is changed from a mechanical device to an electronic device, or changed from electronic 2D to electronic with approaching object detection capabilities.

# (f) In addition to section 8.7.2.14 Car Enclosures, Car Doors and Gates, and Car Illumination, alterations shall comply with the following:

#### [8.7.2.14] \*1 Installation / Replacement of Car Operating Panel (COP)

The disconnect and reconnect of COP wiring shall be confirmed to verify functionality of COP features and operating devices. Additional requirement  $[8.7.2.15] \pm 1$  or  $\pm 2$  below applies.

#### [8.7.2.14] ★2 Installation of Video/Security Cameras and Monitors

Wiring methods shall conform to 2.8.2.1. Equipment shall be securely fastened and shall not create headroom issues per 2.14.1.2.3 and 2.14.2.4. Additional requirement  $[8.7.2.15] \star 1$  or  $\star 2$  below applies.

#### [8.7.2.14] \*3 Installation of Touchless or Handsfree Call Activation

The installation of touchless or handsfree call activation devices shall conform to 8.7.2.8 for all new wiring additions. Where the functioning of these devices could interfere with the safe operation or intended call registration in operating modes other than normal operation, these secondary call registration devices shall be rendered inoperative.

#### [8.7.2.14] \*4 Car Ventilation with Air Purification

Where an alteration to 8.7.2.14.2(f) impacts top of car clearances, the additional requirements of 2.4 7 apply. Additional requirement  $[8.7.2.15] \pm 1$  or  $\pm 2$  below applies where weight changes occur.

#### [8.7.2.14] **★**5 Partitions in Elevator Cars for High-Risk Occupants

Partitions shall be permitted as deemed necessary for the separation and transport of high-risk occupants. The submission shall include rationale of the need and a summarized standard operating procedure that will be followed in the event of Fire Emergency Operation initiation which outlines the intended recall level and means to safely remove occupants. Additional requirement [8.7.2.15]  $\pm 1$  or  $\pm 2$  below applies where weight changes occur.

#### [8.7.2.14] ★6 Installation of Interior Vinyl Graphics – Car Interiors

The installation of vinyl graphics shall conform to the flame and smoke requirements of 2.14.2.1.2

#### [8.7.2.14] **\*7** Installation of Other Equipment

The installation of other equipment is not permitted per 2.14.1.9 unless otherwise permitted under by a variance request.

# (g) In addition to section 8.7.2.15 Car Frames and Platforms, alterations shall comply with the following:

[8.7.2.15] ★0 Increase or Decrease in Deadweight of Car – Missing Crosshead Data Tag (Tag Required) Where an alteration results in any increase or decrease in the deadweight of the car, if no crosshead data plate is existing, a data plate conforming to 2.16.3.2.2 of CSA B44 shall be provided to re-capture the original design data.

# [8.7.2.15] ★1 Cumulative Decrease <5% / Cumulative Increase <115kg & <5% (171/02)

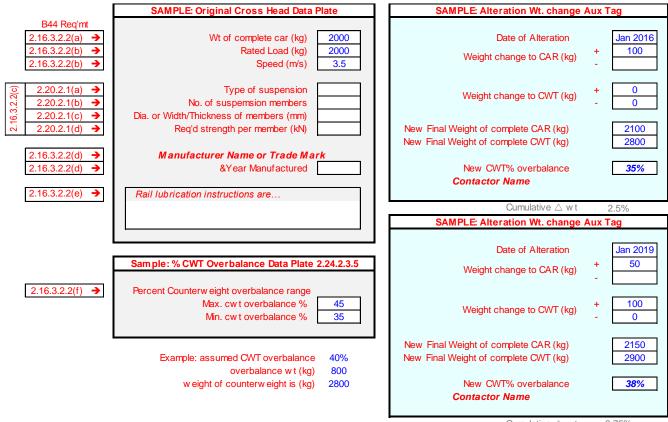
Where an alteration results in

- a cumulative decrease in the deadweight of the car that is sufficient to decrease the sum of the deadweight and rated load, as originally installed by less than 5%, or
- a cumulative increase to the deadweight of the car that is sufficient to decrease the sum of the deadweight and rated load, as originally installed, by less than 5% or less than 115kg (255 Lbs.) including all weight changes since the car was originally installed,

the following requirements shall apply, except (a) does not apply if the cumulative increase is 11kg (25 Lbs.) or less;

- (a) cars and counterweights shall be weighed prior to the alteration to establish starting weights, or
- (b) materials added or removed during the alteration shall be weighed in or out, and the car shall be weighed after the alteration to establish final weight changes
- (c) add on weight (or decreased weight) shall be recorded on an auxiliary data tag and posted on the crosshead or for cars without crossheads in a conspicuous location on the car top or adjacent to the original data
- (d) an auxiliary data tag shall as a minimum contain [See Fig 1 as reference];
  - (1) the date of the alteration,
  - (2) the weight added or removed from the car
  - (3) the weight added or removed from the counterweight
  - (4) the name of the alteration contractor
  - (5) the new final car weight following the alteration
  - (6) the new percent counterweight overbalance value
- (e) where glass, mirror, or overhead finishes are added to the car interior, a no-load governor tripping speed safety tests or a no-load rated speed buffer test shall be performed to ensure the security of finishes prior to the devices return to service (Minor A and Minor B alterations ONLY). For hydraulic elevators and emergency stop from rated speed in the up direction shall be performed.

#### Figure 1



Cumulative  $\triangle$  w t 3.75%

# [8.7.2.15]★2 Cumulative Increase >115kg to <5% (171/02)

Where an alteration results in a cumulative increase to the deadweight that is sufficient to decrease the sum of the deadweight and rated load, as originally installed by more than 115 kg (255 Lbs.) but less than 5% including all weight changes since the car was originally installed the following requirements shall apply;

- (a) additional requirements [8.7.2.15] ★1(a) through ★1(e) above;
- (b) an engineering assessment shall confirm compliance of any components affected by the weight change, including but not limited to;
  - (1) machines
  - (2) car and counterweight frames
  - (3) buffers
  - (4) traction and overbalance
  - (5) ropes
  - (6) plungers & working pressures
  - (7) safeties

# (h) In addition to section 8.7.2.16.3 Capacity and Loading, Carrying of Passengers on Freight Elevators, alterations shall comply with the following:

The elevator shall also conform to CAD 3.12 or extent pit permits and signage requirements in 2.16.5.

# (i) In addition to section 8.7.2.25 Driving Machine and Sheaves, alterations shall comply with the following:

In addition to section 8.7.2.25.1 (a) Alterations to Driving Machines and Sheaves, the requirements apply where a driving machine is replaced by a machine that is not approved by the original equipment elevator manufacturer as being equivalent to the original make and model, or installed as part of an alteration.

# [8.7.2.25] **1** Replacement of worm and/or gear (specify make)

Where the driving machine worm or gear is replaced, the replaced components shall conform to the applicable requirements of 2.24.

Note: Refer to [8.7.2.7] **\*1** above for the addition of machine guarding.

# (j) In addition to section 8.7.2.27 Operating Devices and Control Equipment, alterations shall comply with the following:

In addition to section 8.7.2.27.1 (a) Inspection Operation and Inspection Operation with Open Door Circuits reference of 3.8.3 is to the CAD and the additional requirement  $[8.7.2.15] \neq 1$  or  $\neq 2$  above applies.

In addition to section 8.7.2.27.4 Controllers, subsection (c)(8) shall also apply if the information was provided by a previous alteration. Where these were not previously required/provided, the installation shall be provided with Phase 1 Manual Recall, and any existing level of recall activation shall not be diminished.

In addition to section 8.7.2.27.5 Change in Type of Motion Control, subsection (m)(2) shall also apply if the information was provided by a previous alteration. Where these were not previously required/provided, the installation shall be provided with Phase 1 Manual Recall, and any existing level of recall activation shall not be diminished.

# [8.7.2.27] **\*1** Relocation of Elevator Controller

Where an elevator controller is relocated and requires disconnection and reconnection of field wiring, requirement 2.8.2 applies. The installation shall be tested to verify functionality of all circuits impacted by the relocation.

#### [8.7.2.27] ★2 Addition of Wander Patient Feature - Change in Operation Control

Where a Patient Wandering feature is added, doors shall close per 2.13.5.3 and the activation of phase 1 recall shall not be prevented per 2.27.3.1.6(I).

#### [8.7.2.27] \*3 Addition of Restricted Access - Security / Floor Lock Out

Where security / floor lockout systems are added the following shall apply:

- (a) egress floor shall not be restricted when on FEO,
- (b) door open buttons shall remain operative,
- (c) requirement 2.11.6.2, and
- (d) travel to all serviced landing shall be possible per 2.27.3.3.1(i).

#### [8.7.2.27] ★4 Addition of Destination Dispatch

Where destination dispatch is added to an automatic operation control the following shall apply:

- (a) 8.7.2.8
- (b) changes to FEO shall apply to either 8.7.2.28 or to the code applicable at the time of the original installation or subsequent FEO related alteration.

# (k) In addition to section 8.7.2.28 Operating Devices and Control Equipment, alterations shall comply with the following:

**[8.7.2.28]**★1 Emerg. Recall Upgrade - Manual to Automatic matching code at time of install (175/02) Where the method of recall is being upgraded from manual to automatic recall, FEO features are permitted to operate as required at the time of the original FEO installation. Where the main recall level is not sprinklered, alternate floor recall shall be provided.

**[8.7.2.28]**★2 Emerg. Recall Upgrade to comply with a Fire Code Retrofit Order (60/88) (105/93) (219/07) Where a fire code retrofit was required but not provided, and conformance to provide FEO is now being sought, the FEO features shall be as required by CAD 3.20.

# 1.2 Hydraulic Elevators

(a) In addition to section 8.7.3 Alteration to Hydraulic Elevators, alterations shall comply with the following:

#### [8.7.3] \* 1 Alteration Hydraulic to Electric Elevator [CAD Amendment-261-13-r1]

Where a hydraulic elevator that operated in an existing hoistway is being replaced with an electric elevator, the installation shall conform to Part 2, Electric Elevators, except for the following:

- (a) Existing building conditions not in conformance to the latest code maybe permitted to be retained
- (b) Apron plates must conform to 2.15.9 or where a 1220 mm (48 in.) apron is not possible due to existing pit depth, an engineered solution providing 1220 mm (48 in.) of guarding shall be permitted.

Note: Existing building conditions may include items such as pit depth or no pit drains. Items not in conformance with Part 2 shall be noted in the design submission.

(b) In addition to section 8.7.3.7 Machine Rooms, Machinery Spaces, Control Spaces, and Control Rooms, alterations shall comply with the following:

The addition of Elevator Equipment Guarding shall conform to [8.7.2.7] **±**1 above.

(c) In addition to section 8.7.3.10 Entrances and Hoistway Openings, alterations shall comply with the following:

Removing Service to a Floor shall conform to [8.7.2.10] **\***1 above

Addition of Hoistway Door Safety Retainers shall conform to [8.7.2.10] ★ 2 above.

(d) In addition to section 8.7.3.12 Power Operation of Hoistway Doors, alterations shall comply with the following:

Replacement of Door Operator shall conform to [8.7.2.12] **\***1 above.

(e) In addition to section 8.7.3.13 Car Enclosures and Door Reopening Devices, alterations shall comply with the following:

Replacement of a door reopening device shall conform to [8.7.2.13]★1 above.

In addition to section 8.7.3.14 Car Enclosures, Car Doors and Gates, and Car Illumination, alterations shall refer to the addition to section:

[8.7.2.14] **\*1** for Installation / Replacement of Car Operating Panel (COP);

[8.7.2.14] **\***2 for Installation of Video/Security Cameras and Monitors;

[8.7.2.14] **\***3 for Installation of Touchless or Handsfree Call Activation;

[8.7.2.14] **\***4 for Car Ventilation with Air Purification;

[8.7.2.14] **\*5** for Partitions in Elevator Cars for High-Risk Occupants;

[8.7.2.14] **\*6** for Installation of Interior Vinyl Graphics – Car Interiors; and

[8.7.2.14] **\*7** for Installation of Other Equipment.

# (f) In addition to section 8.7.3.21 Increase in Deadweight of Car, alterations shall comply with the following:

[8.7.3.21] ★0 Missing Crosshead Data Tag (Tag Required) Refer to [8.7.2.15] ★0 if Increase or Decrease in Deadweight of Car and Missing Crosshead Data Tag.

[8.7.3.21] ★1 Cumulative Weight Increase <115kg & <5%</p>
Refer to [8.7.2.15] ★1 if cumulative increase in the deadweight of the car (Less than 115 kg and Less than 5%).

**[8.7.3.21]**★2 Cumulative Weight Increase >115kg & <5% Refer to [8.7.2.15]★2 if cumulative increase in the deadweight of the car (greater than 115 kg and Less than 5%).

# (g) In addition to section 8.7.3.23. 7 Hydraulic Equipment, Plunger Gripper, alterations shall comply with the following:

#### [8.7.3.23.7] **★**1 Plunger Gripper.

Where the alteration consists of the removal of a plunger gripper, the following conditions shall be met:

- (a) 8.7.1.2 the level of safety shall not be diminished
- (b) the cylinder shall conform to 3.18.3
- (c) an overspeed valve shall be installed in conformance with the requirements of 3.19.4.7
- (d) bottom car runby shall conform to 3.4.2.1

### (h) In addition to section 8.7.3.29 Tanks, alterations shall comply with the following:

#### [8.7.3.29] **\*1** Addition of Oil Cooler

Where an oil cooler is installed or altered, the following requirements apply:

- (a) 8.7.3.8
- (b) 2.7.2 for the installed equipment
- (c) 3.10 for the installed equipment

# (i) In addition to section 8.7.3.31 Operating Devices and Control Equipment, alterations shall comply with the following:

Subsection 8.7.3.31.5(a)(7) Controllers should also apply if the information was provided by a previous alteration. Where these were not previously required/provided, the installation shall be provided with Phase 1 Manual Recall, and any existing level of recall activation shall not be diminished.

Subsection 8.7.3.31.6(I)(2) Change in Type of Motion Control. should also apply if the information was provided by a previous alteration. Where these were not previously required/provided, the installation shall be provided with Phase 1 Manual Recall, and any existing level of recall activation shall not be diminished.

#### [8.7.3.31] \*1 Alteration / Addition of any type of inspection operation

Where there is an alteration to or addition of any type of inspection operation the alteration shall conform to 8.7.2.27.1(a) and 3.26.2

#### [8.7.3.31]★2 Alteration / Addition of Door By-Pass Switches

Where there is an alteration to or addition of car door bypass or hoistway door bypass switches, the alteration shall conform to 8.7.2.27.1(b)

# [8.7.3.31] **\***3 Addition of Soft Start

Where there is an addition of a soft start feature the following shall apply;

- (a) 2.26.4.1 and 2.26.4.2 for the new equipment,
- (b) 3.26.5

# [8.7.3.31] ★4 Addition of Power Efficiency Devices

Where there is an addition of power efficiency increasing devices, the following shall apply;

- (a) 2.26.4.1 and 2.26.4.2 for the new equipment,
- (b) B44.1 certification for the new equipment.

# [8.7.3.31] \*5 Relocation of Elevator Controller

Where an elevator controller is relocated and requires disconnection and reconnection of field wiring, requirement 2.8.2 applies. The installation shall be tested to verify functionality of all circuits impacted by the relocation.

# [8.7.3.31] ★6 Addition of Patient Wandering Feature

Where a Patient Wandering feature is added, doors shall close per 2.13.5.3 and the activation of phase 1 recall shall not be prevented per 2.27.3.1.6(I).

# [8.7.3.31] **\***7 Addition of Restricted Access – Security / Floor Lock Out

Where security / floor lockout systems are added the following shall apply:

- (a) egress floor shall not be restricted when on FEO,
- (b) door open buttons shall remain operative,
- (c) requirement 2.11.6.2
- (d) travel to all serviced landing shall be possible per 2.27.3.3.1(i).

### [8.7.3.31] **\***8 Addition of Destination Dispatch

Where destination dispatch is added to an automatic operation control the following shall apply:

- (a) 8.7.2.8
- (b) changes to FEO shall apply to either 8.7.2.28 or to the code applicable at the time of the original installation or subsequent FEO related alteration.

#### **[8.7.3.31]**★9 Emergency Recall Update (175/02)

Where the method of recall is being upgraded from manual to automatic recall, FEO features are permitted to operate as required at the time of the original FEO installation. Where the main recall level is not sprinklered, alternate floor recall shall be provided.

#### [8.7.3.31] **± 10** Emergency Recall Update (60/88) (105/93) (219/07)

Where a fire code retrofit was required but not provided, and conformance to provide FEO is now being sought, the FEO features shall be as required by CAD **3.20**.

# 1.3 Limited-Use/Limited-Application Elevators

# (a) In addition to section 8.7.5.2 Limited-Use/Limited-Application Elevators, alterations shall comply with the following:

[8.7.5.2] \*1 Alterations to Electric Limited-Use/Limited-Application Elevators

Alterations to Limited-Use/Limited-Application Elevators, shall conform to 8.7.2 and the requirements of Part 2 except as modified in section 5.2.

#### [8.7.5.2] ★2 Alterations to Hydraulic Limited-Use/Limited-Application Elevators

Alterations to Limited-Use/Limited-Application Elevators, shall conform to the 8.7.3 and the requirements of Part 3 except as modified in section 5.2.

# 1.4 Escalators and Moving Walks

(a) In addition to section 8.7.6. Alteration to Escalators and Moving Walks, alterations shall comply to the following:

#### ESCALATORS

In addition to section 8.7.6.1.2(b) Repositioning of an Escalator, alterations shall comply with the following: Where an escalator is repositioned within the same building, CAD requirement 3.18 applies and the installation shall conform to the following;

(1) requirement 6.1.3.3.11, 6.1.3.3.12, 6.1.3.3.13

- (2) requirement 6.1.3.4.3
- (3) requirement 6.1.3.6.3, 6.1.3.6.4
- (4) requirement 6.1.3.12
- (5) requirement 6.1.3.13
- (6) requirement 6.1.6.9
- (7) requirement 6.1.7.4.1 and
- (8) requirement 8.7.6.1.3

#### [8.7.6.1] \*1 Addition of Handrail Advertising

The addition of handrail advertising is not permitted per 6.1.6.9.2, unless otherwise permitted by a variance request.

#### [8.7.6.1] ★2 Addition of Handrail Sanitation Devices

The addition of handrail sanitation devices shall be permitted if they are internally mounted, and device(s) satisfies electrical safety requirements and are listed/certified and labelled/marked as appropriate.

Where UV exposure impacts handrail integrity, this shall be included in the maintenance control program with appropriate checkout procedures included in the On-Site documentation. (8.6.1.2.2(b)). The alteration checklist requires compliance / assessment of;

- (a) 2.26.4.2
- (b) 8.7.6.1 General requirements or 8.7.6.2 for moving walks
- (c) 8.7.6.1.14 Lighting, access, and electrical work, or 8.7.6.2.14 for moving walks

# [8.7.6.1] ★2 Removal of Step Demarcation Lights (226/07)

The removal of step demarcation lights, shall be permitted if the device complies with the following:

- (a) requirement 6.1.3.3.5,
- (b) requirements 6.1.3.5.4, 6.1.3.5.5, 6.1.3.5.6, and
- (c) requirement 6.1.3.6.2.

# [8.7.6.1] **\***3 Controller Replaced (226/07)

Where a controller is replaced it shall conform to 8.7.6.1.16.

# [8.7.6.1] **\***4 Relocation of Controller (226/07)

Where an escalator controller is relocated and requires disconnection and reconnection of field wiring, requirement 2.8.2 applies. The installation shall be tested to verify functionality of all circuits impacted by the relocation.

# [8.7.6.1] **\***5 Addition of Soft Start (226/07)

Where there is an addition of a soft start feature the following shall apply;

- (a) for control systems built to B44-00 and later, 6.1.7.4, 6.1.6.10.1, 6.1.6.10.2, 6.1.6.10.3
  - (b) for control systems built prior to B44-00 6.1.7.4.

#### [8.7.6.1] **★**6 Power Efficiency Devices

Where there is an addition of power efficiency increasing devices, the following shall apply;

- (a) 2.26.4.1 and 2.26.4.2 for the new equipment,
- (b) B44.1 certification for the new equipment.

#### **MOVING WALKS**

#### [8.7.6.2] **\*1** Addition of Handrail Advertising

The addition of handrail advertising shall conform to [8.7.6.1] **\***1

# [8.7.6.2] ★2 Addition of Handrail Sanitation Devices

The addition of handrail sanitation devices shall conform to [8.7.6.1] \*2

# [8.7.6.2] **\***3 Controller Replaced (226/07)

Where a controller is replaced it shall conform to 8.7.6.1.16.

# [8.7.6.2] ★4 Relocation of Controller (226/07)

Where an escalator controller is relocated and requires disconnection and reconnection of field wiring, requirement 2.8.2 applies. The installation shall be tested to verify functionality of all circuits impacted by the relocation.

# [8.7.6.2]★5 Addition of Soft Start (226/07)

Where there is an addition of a soft start feature the following shall apply:

- (a) for control systems built to B44-00 and later, 6.1.7.4, 6.1.6.10.1, 6.1.6.10.2, 6.1.6.10.3
- (b) for control systems built prior to B44-00 6.1.7.4.

# [8.7.6.2] ★ 6 Power Efficiency Devices

Where there is an addition of power efficiency increasing devices, the following shall apply:

- (a) 2.26.4.1 and 2.26.4.2 for the new equipment,
- (b) B44.1 certification for the new equipment.

# 1.5 Alterations to Dumbwaiters and Material Lifts

(a) In addition to section 8.7.7. Alteration to Dumbwaiters and Material Lifts with Automatic Transfer Devices , alterations shall comply with the following:

In addition to section 8.7.7.1.2 Increase in Rated Load, alterations shall comply with requirements 7.4, 7.5 and 7.6 as applicable to the device type.

#### [8.7.7] **\***1 Alteration to Freight Platform Lifts Type A

Where an alteration is made to a Type A freight platform lift, the alteration shall conform to the applicable requirements of 7.4, 7.5 and 7.6 for Type B material lifts, except any reference to in-car operating devices and riders shall not apply.

# [8.7.7]★2 Alteration to Freight Platform Lift Type B

Where an alteration is made to a Type B freight platform lift, the alteration shall conform to the applicable requirements of 7.4, 7.5 and 7.6 for Type B material lifts.

In addition to section 8.7.7.3.2, alterations shall comply with the following:

Include a circumstance when an automatic transfer device is removed from a dumbwaiter; Shall refer for conformance with requirements 7.1 to 7.3 for dumbwaiters and requirements 7.4 to 7.6 for material lifts without transfer devices; and Shall be submitted as a new installation.

This Directors Order becomes effective August 1, 2022.

Roger Neate. Director, Ontario Regulation 209/01 (Elevating Devices), appointed under the *Technical Standards & Safety Act, 2000* 

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