



Elevating and Amusement Devices Safety Division	Ref. No.: 260 / 14	Rev. No.: 1
DIRECTOR'S SAFETY ORDER	Date: March 17, 2014	Date: April 15, 2015

IN THE MATTER OF:

THE TECHNICAL STANDARDS AND SAFETY ACT, 2000, S.O. 2000, c. 16 (the "Act")

- and -

ONTARIO REGULATION 209/01 (Elevating Devices) made under the Act

Subject: Car Platform Apron Requirements for Existing Passenger Elevators

Applicable to: All Owners of Existing Passenger Elevators and All Elevator Contractors

The Director, Elevating Devices Regulation (O.Reg. 209/01) pursuant to his authority under section 14 of the *Technical Standards & Safety Act, 2000* hereby orders the following:

1. PLATFORM APRON REQUIREMENTS

1.1. Per the provisions of the Elevating Devices Code Adoption Document (CAD), section 3.10 establishes requirements for car platform aprons on existing passenger elevators for a given occupancy class.

3.10 Platform Apron Requirements (166/01)

3.10.1 Every passenger elevator installed before the 1st day of May, 1981 and currently operated in an apartment building, condominium apartment building or educational institution and every passenger elevator installed after that date in any building, shall be provided at the entrance side with a smooth apron made of metal not less than 1.5 millimetres thick, or made of material of equivalent strength and stiffness, reinforced and braced to the car platform such that:

- (a) it does not extend less than the full width of the widest hoistway door opening;
- (b) it has a straight vertical face, extending below the floor surface of the car-platform, of not less than 1,200 millimetres, except that for an existing elevator this may be reduced where the hoistway pit is not deep enough to accommodate a larger vertical face;
- (c) its lower portion is bent back at an angle not less than 60 degrees and not more than 75 degrees from the horizontal; and
- (d) it is securely braced and fastened in place to withstand a constant force of 500 newtons applied at right angles to and:
 - (1) at 450 millimetres from the top without deflecting more than six millimetres, or
 - (2) at 1,150 millimetres from the top without deflecting more than 50 millimetres, and without permanent deformation.

3.10.2 Every passenger elevator referred to in subsection 3.10.1 shall have a pit deep enough to accommodate the apron required in subsection 3.10.1, and to provide a minimum twenty-five millimetres clearance between the bottom edge of the apron and the pit floor when the car is on fully compressed buffers.

△ 1.2. For the purpose of this order and to allow reasonable accommodation of some existing apron styles, an apron with an overall length dimension of 1125mm (44.25 in.), measured from the car sill to the bottom edge of the apron shall be deemed to comply with the dimensional requirements of 1.1 and shall not be subject to the retrofit requirements of this order.

2. AFFECTED DEVICES

2.1. This Director's Safety Order applies to all passenger elevators that:

- a) Have an Elevating Devices Installation number of **33700 or earlier; and**
- b) Operates in an
 - i. apartment building
 - ii. condominium apartment building; or

- iii. educational institution.
- △ c) Do not have an apron in compliance with the requirements of 1.1 or 1.2 of this order.

Note: This order does not apply to passenger elevators in buildings with occupancies such as a place of assembly, hospital, hotel, office, mercantile or industrial.

3. RETROFIT ORDER

- △ 3.1 On affected devices, where the pit depth and site parameters allow an apron extension of 150mm (6 in.) or more, these devices shall have their apron extended to the extent site conditions allow. No further rework is required if an apron extension meets the requirements of 1.1 or 1.2.

Note: Where conditions allow, it is permissible to extend an apron less than 150mm (6 in.) in order to achieve compliance to 1.1 or 1.2.

- △ 3.2 Where apron plates do not meet the requirements of 1.1 or 1.2, these devices shall also be equipped with a car door restrictor meeting the requirements of :
 - a) 2.12.5 of ASME A17.1-2010/CSA B44 –10 or
 - b) 2.14.5.7 of ASME A17.1-2013/CSA B44 –13 if the door restrictor requires electrical power for its functioning.
- 3.3 The aprons on all affected devices shall meet the beveling and strength requirements of CAD 3.10.
- 3.4 Where apron plates are extended, the pit fascia shall be extended flush to the bottom of the car apron when the car is resting on the fully compressed buffer.
- 3.5 For installations with swing hall doors where the corresponding car door is of a collapsible or foldable design car door restrictors per 3.2 are not required.

4 ORDER to OWNERS

- 4.1 By the dates specified in section 6, owners shall:
 - a) Engage the services of a registered elevator contractor to determine if a retrofit is required; and
 - b) if required, bring their installation(s) into conformance with requirements in part 3 utilizing a registered elevator contractor to perform the work.

Notes:

- 1) Contractor who engage in a retrofit, are required to submit a minor alteration to TSSA and arrange for an inspection. The retrofit is not complete until it has been successfully inspected. Ask for a copy of the registered minor alteration submission and the final inspection report showing the inspection was successful.
- 2) Owners should be aware that building occupancy changes may result in these retrofit requirements becoming applicable to their elevating device at a future date.

5 ORDER to CONTRACTORS

- 5.1 Contractors who assess the apron plate length and can confirm the existing apron meets the requirements in part 1 shall apply a sticker to the cross head of the elevator car sling in the vicinity of the cross head data tag that is permanently attached and marked with the text “**Meets 3.10 of CAD 261/13 Apron Plate Requirement**”, in letters not less than 6 mm (0.25”).
- 5.2 Contractors who engage in the retrofit of affected devices shall:

- a) Be responsible for establishing the maximum allowable apron length and providing compliant solutions as in part 3 of this order.
- b) Submit a minor B alteration for the apron plate extensions, fascia extensions and/or door restrictor retrofits.
- c) Submit a minor A alteration if the door restrictor utilizes electrical power for its functioning complete with restrictor make and model, schematics if applicable and any relevant testing procedures.
- d) Provide a code data plate as per section 8.9 of the code which identifies alteration “8.7.2.11.5 Restricted Opening of Hoistway or Car Doors”.
- e) Arrange for the appropriate inspection with TSSA following completion of the alteration after receipt of a registered design submission.

Notes:

- 1) Contractors may obtain stickers from TSSA at no charge via a request sent to eddesignsubmittal@tssa.org.
- 2) At the time of a Minor A or Minor B inspection, a TSSA inspector will arrange for a sticker to be placed on the car top cross head to acknowledge compliance has been assessed to either CAD 3.10 or Directors Safety Order 260/14.

△ **6 COMPLIANCE TIMELINES**

- 6.1 Revision 1 of this order is effective April 15, 2015.
- 6.2 On or before June 30, 2015, owners shall determine if their elevator installations are an affected device.
- 6.3 Not later than June 30, 2016, all affected devices shall be retrofitted as required in part 3 of this order.

Note: See attached process flow guideline for a visual summary.

BACKGROUND

A recent fatality in Ontario occurred as a result of a self rescue attempt by several trapped passengers. With the elevator stopped above floor level with the car and hall doors open, a space exists between the elevator car floor and the hall floor. This space below the car floor was partially protected by a short apron plate. A fall hazard existed due to the gap between the lower edge of the apron plate and the hall floor, and during egress one of the occupants fell into this gap. The original elevator installation (~1966 code) had no requirement for a long apron. In 1981 when the longer apron requirement came into force this building was of an occupancy that did not require the apron to be lengthened. The occupancy type of this building changed in 1987 but the apron was not lengthened as required.

This safety order is being issued to address the exposure to a fall hazard as well as prevent the possibility of self rescue by restricting egress from a car not at or near the floor for the building occupancies described.

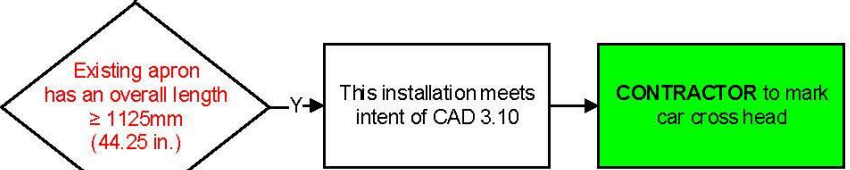
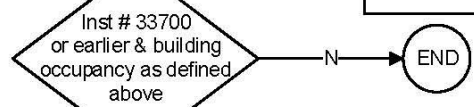
Roger Neate

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

This Order has been developed in consultation with the Elevating Devices Advisory Council and the Field Advisory Committee.

Directors Safety Order 260/14 – Process Flow Guideline

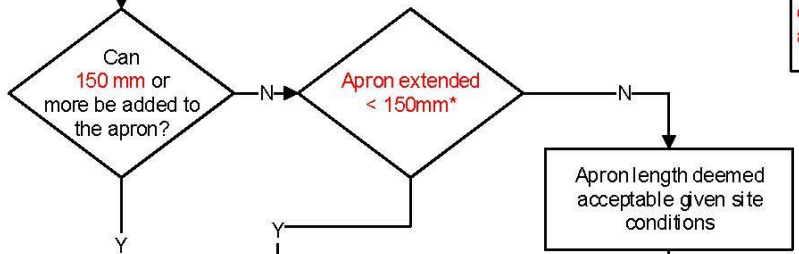
Determine compliance to Either CAD 3.10 or DSO 260/14
 For Elevating Devices with Installation Number 33700 or earlier that operate in buildings with occupancy apartment building, condominium apartment building or educational institution



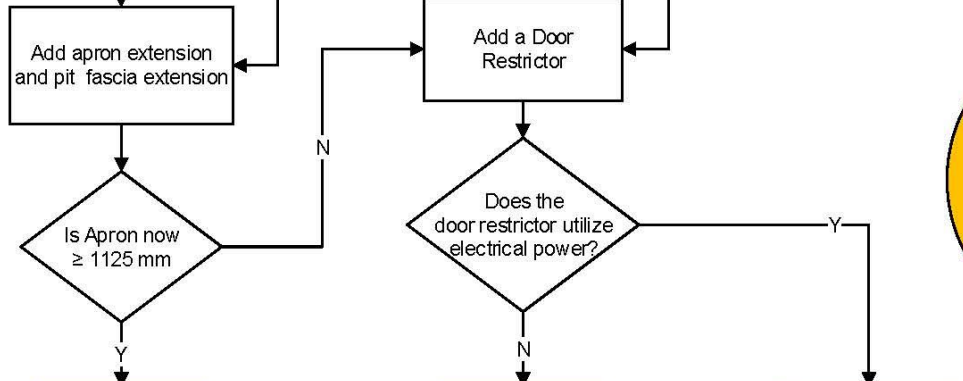
Meets 3.10 of CAD 261/13 Platform Apron Plate

Completion by **June 30, 2015**
 Completion not later than **June 30, 2016**

Measure Existing Apron vs. Possible Apron length for site conditions: pit depth, runby and buffer stroke



* Note: Where conditions allow, it is permissible to extend an apron less than 150mm (6 in.) in order to achieve an apron length of $\geq 1125\text{ mm}$ (44.25 in.)



Meets DSO 260/14 Platform Apron Plate and Door Restrictor

