SAFETY ORDER

ESCALATOR AND MOVING WALK BRAKE AND START-UP REQUIREMENTS

Date of Issue: July 10, 2018

No: SO-ED 2018-01

This safety order is issued pursuant to section 31 of the Safety Standards Act. A person affected by this safety order may appeal this order in writing to the Safety Standards Appeal Board within 30 days. The appeal process is set out on the Safety Standards Appeal Board’s website at www.gov.bc.ca/safetystandardsappealboard.

Failure to comply with a safety order is an offence under section 72 of the Safety Standards Act.

Part 1: Details of Regulated Work or Regulated Product

This safety order is being issued to all licensed elevating device contractors and building owners or property managers that maintain or own escalators and moving walks. It applies to all escalators and moving walks within the scope of the CSA B44 Safety Code for Elevators and Escalators.

Part 2: Requirement(s) of this Safety Order

Licensed elevating devices contractors and building owners/property managers are jointly responsible for the requirements of this safety order as specified below.

All escalator and moving walk driving machine brakes must be maintained by licensed elevating device contractors as specified in section 1 of this safety order. Section 1 requirements will come into effect as of the date specified in that section.

Section 2 of this safety order applies to owners of escalators and moving walks, or their agents. Owners will be required to implement the requirements of this safety order effective the dates specified in parts 1 and 2 of that section. Compliance with parts 1) and 2) prior to the full implementation date is encouraged.

The requirements of this safety order are in addition to any other requirements under the Safety Standards Act, Safety Standards General Regulation, Elevating Devices Safety Regulation (and its adopted codes and standards) and any other applicable directive or safety order issued under the Safety Standards Act.

Definition:
authorized personnel: For the purpose of this safety order, an authorized person refers to an individual designated by the owner, who has been instructed in the necessary procedures to start-up and operate the equipment.

Licensed Elevating Device Contractor Requirements

SECTION 1: Examination and testing of escalator driving machine brakes:

Licensed elevating device contractors are hereby ordered to undertake all activities as described in this Section.

The requirements of section 1 of this safety order shall be in addition to the requirements prescribed in section 5.4 of the B44.2-2007 standard and shall be completed no later than December 31, 2019.
1) As part of the 12 month inspection requirements prescribed in section 5.4 of the B44.2-2007, all licensed elevating device contractors who maintain escalators and moving walks shall examine, maintain, and inspect all driving machine brakes as follows:
   a) The brakes shall be **dismantled and cleaned** to ensure safe and proper operation, including, but not limited to, the following components:
      i) residual pads;
      ii) linings;
      iii) pins;
      iv) springs;
      v) sleeves; and
      vi) discs or drums.
   Note: where brakes are not possible to dismantle by design, the manufacturer’s maintenance procedures shall be followed.
   b) Upon completion of the dismantling, cleaning, and examination of the driving machine brake, the brake shall be tested for conformance to clause 6.1.5.3.1(d)(1) to (d)(4) of ASME A17.1-/B44 and the log book shall be updated with all pertinent information.
   c) The brake inspection information and test results shall form part of the **periodic test declaration** requirements for escalators and moving walks for each unit maintained and shall be submitted to Technical Safety BC every second year as required by directive D-L4 110303 2 (part 2). Contractors shall retain the brake declarations on file in either hard copy or electronic format (or both) for a minimum of **five years** and shall provide them to Technical Safety BC immediately upon request.
   Note: The **periodic test declaration** is required to be completed annually and submitted to Technical Safety BC every second year.

2) **Brake adjustment procedure**
Licensed elevating device contractors maintaining an escalator or moving walk shall establish a device-specific “Brake Adjustment Procedure” that provides instructions for certified elevating device mechanics performing maintenance on the device. This Brake Adjustment Procedure shall clearly describe how the escalator or moving walk brakes must be adjusted and checked.

The “Brake Adjustment Procedure” shall, at a minimum:
   a) include all information provided on the existing brake data tag;
   b) include detailed instructions for setting the escalator/moving walk brake;
   c) include the method of checking the brake setting such as the “minimum torque”, or the “maximum spring length”, or other methods;
   d) include the maximum no-load stopping distance in the down direction as related to the manufacturer’s specified brake torque, spring length, etc. (Where this information is missing and cannot be obtained from the original manufacturer, it is acceptable for a professional engineer licensed in the province of British Columbia to determine the no-load stopping distance.); and
   e) be made available in the upper escalator pit or in the machine space of the moving walk.

3) **Brake stopping distance**
The escalator/moving walk stopping distance shall be verified by the maintaining contractor during each scheduled maintenance visit and the results of the test shall be recorded in the maintenance log book.

4) **Stopping distance sign**
A “daily stopping distance check” sign shall be affixed at each end of the escalator/moving walk near the stop button or start switch. It shall state the following:
Daily Stopping Distance Check

| The maximum stopping distance shall not exceed:  
| X step(s)  

Where stopping distance is greater than X step(s), do not re-start escalator/moving walk. Barricade the escalator/moving walk and inform the maintenance provider.

The stopping distance shall be determined by rounding the required no-load stopping distance, as determined by (d) of the brake adjustment procedure detailed above, up to the nearest full step increment. The stopping distance shall serve as a guide to authorized persons (see definition and section 2 below) who are performing the daily stopping distance check.

The daily stopping distance check sign shall be of durable material and construction such that letters etched, stamped, cast or otherwise applied to the face will remain permanently legible. The lettering shall be at least 3 mm (.125 inches) in height.

Elevating Device Owner Requirements

SECTION 2: Escalator/moving walk daily start-up

Elevating device owners, or their agents, are hereby ordered to undertake all activities as described in this section.

Effective date: October 1st, 2018

1) Owners of escalators and/or moving walks shall ensure all of the following:
   - Prior to allowing the use of the escalator or moving walk by the public, a daily start-up check of escalators and/or moving walks shall be performed by designated authorized personnel.
   - An owner shall designate authorized personnel to perform the start-up of escalators and moving walks.
   - A record of designated authorized personnel who have been trained to complete the start-up procedure shall be kept on the premises where the escalator(s) and/or moving walk(s) is located. That record shall be kept up-to-date and be available for Technical Safety BC to review upon request.
   - Escalators and moving walks shall be started up only by authorized personnel who have been trained in the start-up procedure. These authorized personnel are the only individuals who may perform the daily start-up check.
   - A daily start-up log (i.e., that includes copies of the Escalator/Moving Walk Start-Up Checklist attached to this safety order) shall be filled out daily by the same authorized personnel who performed the start-up check.
   - The daily start-up log required by this safety order must be maintained in a clear and legible state; contain records of checks for the previous 12 months; and be kept on the premises where the escalator(s) and/or moving walk(s) is located. This log shall be available for Technical Safety BC for review upon request.
   - Any required actions, as specified in the attached Escalator/Moving Walk Start-Up Checklist Guide, shall be undertaken by authorized personnel. Actions may include, but are not limited to: removing the escalator or moving walkway from service and notifying the maintenance contractor.
Where escalators and moving walks are subject to continuous 24-hour operation, they shall be stopped and started up daily in order for the Escalator/Moving Walk Start-Up Checklist to be completed.

Note: Records required by this safety order may be in either hard copy or electronic format but must be made readily available to Technical Safety BC upon request.

Daily stopping distance checks:
Effective date: December 31st, 2019

2) Owners of escalators and/or moving walks shall ensure all of the following:

- As part of the daily start-up checks, a daily stopping distance check shall be completed by authorized personnel. The authorized personnel completing the start-up check shall verify that the escalator or moving walk stops within the specified distance as indicated on the posted “daily stopping distance check” sign.
- The results of the stopping distance test shall be recorded in the “Escalator / Moving Walk Daily Start-Up Checklist”.

Part 3: Details of Issue (if applicable)

This safety order is being issued to the following:
- Licensed elevating device contractors
- Building owners and Property Managers

Part 4: Details of Ordering Safety Manager or Safety Officer – Please read following page

I certify that I am authorized to issue this safety order in accordance with section 15 (d) of the Safety Standards Act or that I have been delegated this power under section 15 (g) of the Safety Standards Act.

Nav Chahal,
Provincial Safety Manager – Elevating Devices
Date: July 10, 2018

BC Safety Authority is now Technical Safety BC.
While we have changed our name, we remain committed to our vision of Safe technical systems. Everywhere.
SAFETY ORDER

Safety Standards Act:

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(1) To prevent, avoid or reduce risk of personal injury or damage to property, a provincial safety manager may, in writing, issue a safety order.

(2) A safety order may be issued to any person in relation to any of the following:
   (a) regulated work or regulated products generally;
   (b) a specific class of regulated product or regulated work;
   (c) a specific regulated product or regulated work.

(3) For certainty, a safety order issued under this section may apply to
   (a) regulated work that meets the requirements under this Act,
   (b) regulated work that previously met the requirements under this Act or a former Act but does not meet the current requirements under this Act,
   (c) regulated products that meet the requirements under this Act, or
   (d) regulated products that previously met the requirements under this Act or a former Act but do not meet the current requirements under this Act, including a regulated product that bears a certification mark.

(4) A safety order may specify any requirement that is intended to prevent, avoid or reduce the risk of personal injury or damage to property and may include any of the following orders:
   (a) that an existing regulated work or regulated product must be made safe in compliance with the safety order;
   (b) that a regulated product must be
      (i) disconnected from a power source,
      (ii) uninstalled, or
      (iii) modified before continued use;
   (c) that a regulated product must be operated, installed, manufactured or disposed of only as specified or that a regulated product must not be moved;
   (d) that current or future regulated work or a regulated product must conform to the terms or conditions of the order;
   (e) that a person take or refrain from taking any action that a safety manager considers necessary to prevent, avoid or reduce a risk of personal injury to persons or damage to property;
   (f) that the manufacturer make reasonable efforts to recall the regulated product.

(5) The provincial safety manager must give written notice of the safety order to the following persons:
   (a) the manufacturer of the regulated product;
   (b) an owner of the regulated product if the identity of the owner is known to the provincial safety manager;
   (c) the person in charge of the regulated work.

(6) The notice must state the reasons for the decision and that the person has the right to appeal the decision to the appeal board.

(7) Despite section 54, a safety order may not be stayed during an appeal.

References:

Safety Standards Act

Safety Order No: SO-ED 2018-01