



14th Floor, Centre Tower
3300 Bloor Street West
Toronto, Ontario
Canada M8X 2X4
Tel.: 416.734.3300
Fax: 416.231.1626
Toll Free: 1.877.682.8772
www.tssa.org

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Update on Current Regulatory Safety Issues

Attention: Elevator/Escalator Owners, Operations Managers, Owners' Representatives and Elevator Contractors

The Technical Standards and Safety Authority (TSSA) is committed to public safety and, to that end, enforces all regulations under its jurisdiction, including administration of the *Technical Standards and Safety Act, 2000* and Ontario Regulation 209/01 (Elevating Devices). This communication is an update on current regulatory safety issues, of which elevator and escalator owners or their representative should be aware.

New Elevator Code and Enhanced Maintenance Requirements

The harmonized Safety Code for Elevators and Escalators, ASME A17.1/CSA B44-2010, became effective in Ontario on May 1, 2012 for new and altered installations submitted to TSSA on or after this date.

This version of the code included a number of additional requirements that will be phased in at future dates and have cost implications, including:

- additional five-year testing of some elevator components with full load
- retroactive upgrades for single bottom cylinders of hydraulic elevators (see item 17 in the table below)
- performance requirements for escalator skirt panels (see item 18 in the table below)
- new maintenance control program requirements for new and existing elevating devices

For complete details of the new requirements, please refer to the [Code Adoption Document \(CAD\) Amendment 261/13-r1](#) or talk to your maintenance contractor.

Five-Year Performance Tests Change as of April 1, 2014

Five-year elevator performance test requirements will change on April 1, 2014, with **full-load testing replacing no-load testing**.

This change is to ensure elevators safeties, machine brakes, buffers, traction and traction limits can operate properly with loads up to capacity, as would be the case under real operating conditions.

These tests must be done in the year of the five-year anniversary of the previous five-year no load test. For example, if the previous test date for the device was June 5, 2009, the full-load test must be completed within the calendar year 2014.

What impact will this change have on me?

- Transporting test weights to and from the site; loading onto and unloading from the elevator will add to the cost of these tests
- Disruptive
- Manpower intensive
- Load testing is strenuous, reveals weaknesses and in some circumstances may cause damage to elevator equipment

However, **once a baseline with full load testing has been established**, the code does allow for alternative means of testing (i.e. without full load)

Talk to your maintenance contractor for more details about the new five-year full load testing requirements, and when your elevators are due for their tests.

Maintenance Control Program

Changes to elevator maintenance now include a new requirement for a Maintenance Control Program (MCP) that is to be provided **and followed as part of the maintenance regime**. Here are a few points of note:

- The MCP is a blueprint and procedure document detailing how maintenance will be performed on a specific piece of equipment including the recording of repairs and replacements as well as the logging and tracking of call-backs ('trouble calls').
- Implementation of the MCP will require replacement log books to record these additional maintenance tasks.
- Maintenance frequency can be varied based upon environment, equipment characteristics and usage.
- New elevators have been subject to these requirements since May 1, 2013. Existing elevators were given an extension to April 1, 2014.
- These new requirements are significant and will have an impact on your operating costs.
- Please talk with your maintenance contractor to discuss how these new requirements (i.e. additional inspections and testing) will be incorporated into your maintenance program.
- Ask to see the maintenance log to confirm that maintenance is performed as agreed (i.e. number of visits, annual tests are up-to-date).

New Fee Schedule and Cost Implications

- TSSA's new fee schedule went into effect on May 1, 2013.
- **The fees for follow-up inspections are substantial if the orders have not been complied with within a defined timeframe.**
- **It is important to comply according to the timeframe specified in the order to avoid additional costs**

Communicate with your maintenance provider and arrange to get the work done by the timelines listed on the periodic inspection report to avoid incurring additional charges. Here is an example of fees and cost consequences:

Follow-up inspections:

- First follow-up – work completed charge is \$200 per device
- First follow-up – work not done charge is \$400 per device (doubled)
- Subsequent follow-up – work not done charge is \$600 per device (tripled)

Complete details of the new [Elevating Devices Fee Schedule](#) can be found on TSSA's website, www.tssa.org.

To further control your costs ensure you and your contractor utilize the Declaration of Compliance option if you are eligible. Declaration of Compliance (DC) is an option offered for inspections where all orders issued are low risk. You and/or your elevator/escalator contractor can attest to the fact that you have complied with inspection orders (via email or fax) and avoid a follow-up inspection and its related fees (see above). DCs submitted are subject to an audit process. For DC remember the following:

- **Use the Declaration of Compliance process when offered**
- DC is offered on inspections where all orders are low risk
- DC is subject to an audit process
- DC is not offered if any maintenance tasks are overdue, including annual tests, or if there are observed non-compliances to Director's Orders

Director's Orders and Bulletins

Several recent Director's Safety Orders were issued to deal with specific developments or issues in the elevating devices sector.

Some of these Safety Orders (for example, items 15 through 18 shown in the attached table) are significant and require various safety retrofits on certain types of elevating devices, with **specific compliance completion dates**.

These compliance dates will not be extended, so please speak with your maintenance contractor to confirm compliance requirements.

If completion compliance dates are not met, elevator shutdown orders will be issued during the periodic inspection cycle.

A high-level overview of these items and their compliance timelines are referenced in the table below. Complete information is available on tssa.org.

Item #	Date for Compliance	Reference Document*	Notes
NOW EFFECTIVE			
1	Jan 31, 2012	248/11	Requirement for a pressure sensor on some B355 devices.
2	Apr 25, 2011	243/10 CAD 246-11	Single bottom cylinders require interim measure for oil loss monitoring per CAD requirement 2.9. See Item 17 for final compliance date.
3	Jan 1, 2008	241/10	Daily Escalator start-up checks required. See Item 10 & Item 12 for final compliance date.
4	Jan 1, 2008	241/10	Requires monthly or more frequent application of anti-friction spray to escalator skirt panels (where required). See Item 18 for final compliance date.
5	Jan 1, 2011	239/10	Annual testing of Fire Emergency Operation (FEO) features. See Item 11 for next steps.
6	Oct 14, 2011- April 14, 2012	249/11 B355	B355 devices with cylinder collars. Must be inspected and welded if necessary during this time period.
7	May 1, 2012	CAD 250/11 3.1	New and altered installations must conform to B44-2010 for submissions received on or after this date. New 2010 code forms must be used.
8	May 1, 2012	CAD 250/11	Machine guarding submissions become a Minor A per machine room. See 8.7.2.7.*1.
9	May 1, 2012	CAD 250/11	All elevator cars must now be weighted before and after an alteration affecting weight. See 8.7.2.15*1.
10	May 1, 2012	CAD 250/11 8.6.11.6.2	Escalator start-up check is to include a daily stopping distance check where 247/11 has been implemented. See Item 12 for final compliance date.
11	May 1, 2012	CAD 250/11 8.6.11.1	Annual testing of FEO to be recorded on specific form, unless testing is by the registered elevating device maintenance contractor.
12	Aug 1, 2012	247/11 B44	All escalators to have a stopping distance check sign. A daily start up check is required to confirm the escalator brakes capability.
13	Aug 1, 2012	247/11	Brake adjustment procedures developed and stored in upper escalator well. Maintenance log includes verification and documentation of successful brake test.
2014			
14	April 1, 2014	CAD 261/13 r1 3.3.2(b)	All maintenance must conform to a written Maintenance Control Program (MCP). MCP to be in place, log books updated with new tasks and notes sections.
15	May 1, 2014	245/10	Elevator car tops to be equipped with railings where fall hazard is present.
16	May 1, 2014	CAD 261/13-r1 3.9.2, 253/12	Material lifts/Freight platform lifts require interlocks
2015			
17	May 1, 2015	CAD 250/11 8.6.5.8	Single bottom cylinders must be addressed – 3 options: 1. replace 2. add safeties 3. add plunger gripper. Options 2 & 3 have potential environmental problems.
18	May 1, 2015	CAD 250/11 8.6.8.3.3	Conformance to escalator Skirt Step Performance Index (SSPI) now required. Escalator skirts can no longer use anti-friction sprays

*some reference documents have now been incorporated into the latest CAD

Incident Reporting

All owners, contractors, and mechanics are legally required to report incidents that take place on their elevating devices within a specified time period. [Director's Guideline 230/09](#) provides guidance on reporting requirements under section 36 of [Ontario Regulation 209/01 \(Elevating Devices\)](#). Section 36 not only deals with the reporting requirements for incidents but also for reporting of hazardous conditions where there is a potential for injury to occur or where property damage has occurred.

Important: Where there is an incident causing serious injury or death or the elevator is found to be in an unsafe condition which could cause serious injury or death, the elevating device must be removed from service and the incident reported to TSSA immediately.

To report an incident:

1. Call TSSA (toll-free) at 1-877-682-8772 and follow the menu selections
2. Complete and submit a copy of the Incident Report Form

For full details of Director's Guideline [230/09](#) or to obtain a copy the [Incident Report Form](#), visit the Elevating Devices Section on TSSA's website, www.tssa.org.

Responsibility for Verification of Fire Alarm Systems Related to Elevator Systems

The 2012 Ontario Building Code – Section 3.2.4.6 (1) states:

‘where life safety and fire protection systems are installed, the commission of these integrated systems must be performed as a whole to ensure the integration of these systems.’

This clause came into force January 1, 2014, and recognizes that life safety systems need to work together (i.e. where elevators tie-in to the fire detection system). Key points are:

- Building owners are responsible for ensuring these systems are tested and compliant with the Code
- Verification that the elevators respond appropriately is a critical life safety check
- Talk to your alarm company to confirm that the required testing is taking place

Elevator Alterations

An elevator alteration is only complete once the elevating device has passed an inspection performed by a TSSA inspector.

Alteration contractors must:

- submit a design submission to TSSA
- get the documentation registered and
- arrange for an inspection

In many cases, TSSA inspectors are finding minor alterations that have been completed, with no evidence of a design submission or inspection.

After-the-fact submissions and inspections complicate the process and create additional expenses and follow-up inspection fees for you.

When an undisclosed alteration is discovered orders are issued to the owner to have the submission done so the inspection can be completed.

If the alteration contractor cannot be found, the owner will have to engage (and pay for) another contractor to complete this work.

Owners should insist that their contractor provide them with a copy of the registered design submission and a copy of the minor alteration inspection report to prove that all aspects of the alteration have been completed and the elevating device has passed inspection.

Summary – Take control to contain your costs and manage your risks

- Take advantage of the cost-effective declaration of compliance process when it is offered.
- Take note of the various compliance dates and plan now to have the work completed on time to avoid elevator shutdowns and high follow-up fees.
- Talk to your elevator maintenance contractor about the new maintenance requirements and have them added to your future maintenance program. Review your maintenance log book periodically to confirm that all tasks are up to date.
- Take control of your risks. It's in everyone's best interest to resolve any outstanding orders. It helps protect you, your managers, contractors and ultimately, the tenants and public users at-large.
- When minor alterations are undertaken, get a copy of the registered design submission and the inspection report to prove that all parts of the minor alteration have been completed and the elevating device has passed inspection.

Safety is a shared responsibility. We appreciate your efforts and cooperation – building owners and industry – towards enhancing elevating device safety for us all.

Yours truly,



Roland Hadaller, TSSA Statutory Director
Elevating Devices and Amusement Devices Safety Program
Tel.: (Toll-Free) 1-877-682-TSSA (8772)
Email: customerservices@tssa.org
Web: www.tssa.org