

Chapter 41

Technical Safety Authority of Saskatchewan – Inspecting Elevating Devices

1.0 MAIN POINTS

By February 2019, the Technical Safety Authority of Saskatchewan (TSASK) made progress in improving its processes to inspect elevating devices. It improved its processes by keeping accurate and complete inspection records, and consistently documenting its communication of inspection deficiencies with elevating device owners. It also consistently monitored whether device owners resolved deficiencies within an acceptable timeframe.

TSASK was actively working on developing a risk-informed strategy for prioritizing inspections using a three-phased approach. It expected to finalize its strategy in 2020.

TSASK was not consistently following its procedures for handling complaints. In addition, it and the Ministry of Government Relations had not yet defined the expected frequency for inspecting elevating devices to enable reporting of overdue inspections.

Effective regulation of elevating devices helps prevent device malfunction and keeps the public safe.

2.0 INTRODUCTION

TSASK administers Saskatchewan's safety programs for boilers, pressure vessels, elevating devices, and amusement rides on behalf of the Ministry of Government Relations under the Safety Standards Agreement.¹ It specifically administers and enforces *The Boiler and Pressure Vessel Act*, *The Passenger and Freight Elevator Act*, *The Amusement Ride Safety Act*, and related regulations.

In 2016, we assessed TSASK's processes for inspecting elevating devices. Our *2017 Report – Volume 1*, Chapter 14 concluded that for the 12-month period ended November 30, 2016, TSASK had, except in the areas of our seven recommendations, effective processes to inspect elevating devices.

Elevating devices refer to any apparatus, appliance, or device used for lifting or lowering persons or material from one permanent level, floor, or landing to another.² Regular and proper inspections are a key component of effective regulation. In addition, strong inspection processes encourage device owners to maintain elevating devices within industry standards, and reduce the risk that equipment deficiencies go undetected and unaddressed.

¹ The Technical Safety Authority of Saskatchewan is a not-for-profit organization established under *The Technical Safety Authority of Saskatchewan Act*.

² *The Passenger and Freight Elevator Act*, Section 2(d).



This chapter describes our follow-up of management's actions on the recommendations we made in 2016. To conduct this audit engagement, we followed the standards for assurance engagements published in the *CPA Canada Handbook – Assurance* (CSAE 3001). To evaluate TSASK's progress towards meeting our recommendations, we used the relevant criteria from the original audit. TSASK's management agreed with the criteria in the original audit.

To carry out our audit, we interviewed TSASK management and staff. We examined TSASK's policies and procedures related to inspecting elevating devices. We assessed the functionality of TSASK's IT system, and the reasonableness of supporting documentation. We examined a sample of incident reports, complaint records, and in-service inspections.³

3.0 STATUS OF RECOMMENDATIONS

This chapter sets out each recommendation including the date on which the Standing Committee on Public Accounts agreed to the recommendation, the status of the recommendation at February 6, 2019, and TSASK's actions up to that date.

3.1 Accurate and Complete Inspection Records

We recommended that the Technical Safety Authority of Saskatchewan keep accurate and complete elevating device inspection records.

(2017 Report – Volume 1, p. 197, Recommendation 1; Public Accounts Committee agreement October 3, 2018)

Status – Implemented

TSASK has processes in place to keep accurate and complete elevating device inspection records.

In April 2017, TSASK completed its transition to an inspections-records IT system (Basebridge). Checklists programmed within this IT system include all required components of the safety code requirements.⁴ Controls within this IT system require inspectors to input all required information before the status of an inspection can be closed. In addition, the IT system only sends an inspection report to an elevating device owner after an inspector sets the inspection status in the system to closed (i.e., TSASK completed the inspection).

TSASK gives its inspectors laptops, tablets, and cell phones to enable direct entry of inspection results into the IT system while completing inspections. To avoid the risk of unauthorized changes to inspection results, controls in the IT system allow only the inspector who created an inspection report to modify any technical details of the report.

³ An in-service inspection is a periodic inspection of licensed equipment that is in use or operation.

⁴ The American Society of Mechanical Engineers and the Canadian Standards Association develop and maintain the Safety Code for Elevators and Escalators.

TSASK uses its elevating device inspection records to schedule inspections and follow up on identified deficiencies. Accurate and complete inspection records helps TSASK monitor whether its inspections are done at the right time, and results are appropriately managed.

3.2 Inspection Reports Shared with Elevating Device Owners

We recommended that the Technical Safety Authority of Saskatchewan document when it shares inspection reports with elevating device owners. (2017 Report – Volume 1, p. 202, Recommendation 5; Public Accounts Committee agreement October 3, 2018)

Status – Implemented

TSASK documents when it shares inspection reports with elevating device owners.

After completing an inspection, TSASK shares the inspection reports with elevating device owners and/or maintenance contractors through email or mail. TSASK uses its IT system to track when it shares inspection reports. For all of the 30 in-service elevating device inspections tested, we found that TSASK shared a copy of the inspection report with the elevating device owner.

Documenting whether and when inspection reports are shared with the device owners mitigates the risk of device owners not being aware of TSASK-identified deficiencies or not fixing the deficiencies in a timely manner.

3.3 Developing and Documenting Risk-Informed Strategy

We recommended that the Technical Safety Authority of Saskatchewan develop a documented risk-informed strategy for prioritizing inspections of elevating devices. (2017 Report – Volume 1, p. 198, Recommendation 2; Public Accounts Committee agreement October 3, 2018)

Status – Partially Implemented

We recommended that the Technical Safety Authority of Saskatchewan perform in-service inspections of escalators in accordance with a risk-informed inspection strategy. (2017 Report – Volume 1, p. 201, Recommendation 4; Public Accounts Committee agreement October 3, 2018)

Status – Partially Implemented

At December 2018, TSASK was developing a documented risk-informed strategy for prioritizing inspections of elevating devices.



TSASK planned to do the following:

- By the end of 2018, define a risk priority number assessment for elevating devices. It expected the risk priority number would be based on assessed probability that an elevating device will fail, the severity of probable failure, and the probability of detecting failure.
- In 2019, assign a risk priority number to each piece of equipment based on the inspectors' assessment. TSASK was developing a new feature in its IT system that will allow inspectors to input their assessment of the risk factors of each piece of equipment, and the system will automatically assign a risk priority number based on the risk rankings.
- In 2020, use the assessed risk priority numbers to determine inspection frequency. For elevating devices, including escalators, assessed with a higher risk, TSASK expects this to be reflected in its inspection frequency (i.e., inspect these devices more often).

At December 2018, TSASK planned to inspect escalators every 12 months until it implemented the risk-informed strategy. We found that for TSASK's escalator inspections between 2016 and 2018, TSASK only completed about three quarters of the inspections within its informal inspection frequency (which was 18 months until 2017).

Performing regular in-service inspections based on a risk-informed strategy reduces the risk of equipment deficiencies going undetected and unaddressed. Periodic inspections reduce the risk of elevating device incidents.

3.4 Complaints Procedures Not Always Followed

We recommended that the Technical Safety of Authority of Saskatchewan formalize its procedures for handling incidents and complaints related to elevating devices. (2017 Report – Volume 1, p. 199,

Recommendation 3; Public Accounts Committee agreement October 3, 2018)

Status – Partially Implemented

TSASK formalized its procedures for handling incidents and complaints related to elevating devices.⁵ Staff followed the procedures for handling incidents, but did not always follow the procedures for handling complaints.

Since 2016, TSASK created incident and complaint flow charts to document its procedures for handling incidents and complaints. It shared these with TSASK staff via email, and gave staff access to them on its internal IT network.

For five incidents we tested, TSASK followed its procedures to handle incidents.

⁵ An incident is an event related to the operation of an elevating device that is abnormal to routine operation.

Our review of the three documented complaints since 2017 found TSASK evaluated each complaint, and prepared a response based on the cause and nature of the complaint. For two of three complaints we tested, TSASK communicated the response to the affected parties. However, for one complaint we tested, TSASK did not have evidence to show it had communicated the response to the complainant as its procedures require.

Following established procedures promotes consistency in handling similar situations.

3.5 Consistent Monitoring of Deficiencies

We recommended that the Technical Safety Authority of Saskatchewan monitor whether device owners resolve deficiencies noted in its inspections of elevating devices within an acceptable timeframe.

(2017 Report – Volume 1, p. 203, Recommendation 6; Public Accounts Committee agreement October 3, 2018)

Status – Implemented

TSASK consistently monitors whether device owners resolve deficiencies noted in its inspections of elevating devices within an acceptable timeframe.

TSASK requires periodic inspections of licensed equipment that is in use or operation (i.e., in-service inspections).

TSASK uses its IT system to monitor whether device owners resolve deficiencies noted in its in-service inspections of elevating devices. The IT system tracks inspection orders, and determines whether the owner or maintenance contractor resolved deficiencies identified from a previous inspection. TSASK's policy, effective April 2018, indicates when staff are to send reminders to elevating device owners about correcting outstanding deficiencies.

In April 2018, TSASK started issuing reminders to elevating device owners to correct outstanding deficiencies.

For all 37 in-service inspections with deficiencies we tested, TSASK monitored whether elevating device owners resolved deficiencies consistent with its policy. Actively monitoring the timely resolution of identified deficiencies can reduce the risk of elevating device malfunctions and any resulting safety incidents.

3.6 Expected Frequency for Overdue Inspections Needed

We recommended that the Technical Safety Authority of Saskatchewan and the responsible Ministry define the expected frequency for inspecting elevating devices to enable reporting of overdue inspections.

(2017 Report – Volume 1, p. 205, Recommendation 7; Public Accounts Committee agreement October 3, 2018)

Status – Not Implemented



TSASK and the Ministry of Government Relations (responsible Ministry) have not defined the expected frequency for inspecting elevating devices to enable reporting of information about the nature and extent of overdue inspections. Overdue inspections are where the actual inspection interval of licensed equipment exceeds a formally defined expected inspection interval.

Each quarter, TSASK gives the Ministry information for elevating devices required under the Safety Standards Agreement. The Agreement between TSASK and the Ministry requires TSASK to give the Ministry quarterly reports containing the following information:

- Total number of inspections
- Total number of reported accidents⁶
- Details regarding corrective action reports issued (i.e., inspections with noted deficiencies)
- Total number of overdue inspections (i.e., those where the last inspection date exceeds a legislated inspection frequency)

At February 2019, there was no legislated inspection frequency for elevating devices. That is, neither *The Passenger and Freight Elevator Act* nor related regulations establish an inspection frequency for TSASK's inspections of elevating devices.

Since 2016, TSASK has researched frequency for elevating devices inspections, but found there was no standard practice in Canada. The Ministry is aware of TSASK's progress towards the implementation of the risk-informed strategy, but has not formally defined reporting of overdue inspections with TSASK.

Deciding how often elevating devices should be inspected, and tracking overdue inspections would help TSASK facilitate better monitoring. Not inspecting elevating devices timely both increases the risk that deficiencies go undetected and the risk of incidents. Also, without complete information regarding overdue inspections, TSASK cannot demonstrate, and the Ministry cannot fully monitor, performance under the Agreement.

⁶ An accident is any incident that causes death or serious injury which involves equipment that TSASK regulates. TSASK defines serious injury as receiving medical attention (i.e., in a clinic or hospital).