

May 2024

ELEVATOR PERIODIC CATEGORY TESTS AND INSPECTION FREQUENCY

All elevators require regular periodic tests to be performed. Certain older model elevators may not have had testing and inspection requirements established within their original code of construction. Newer editions of elevator safety codes have introduced testing requirements to verify the safe operation of elevators. To remove ambiguity with how newer safety code editions apply to older model elevators, *The Passenger and Freight Elevator Regulations, 2017* were modernized to clarify periodic test requirements for all elevators in the province. Many older elevators that may not have been subject to regular safety testing are now due for their safety test in 2023.

The owner shall ensure the following:

- that in addition to regular maintenance, Periodic Category 1, and Periodic Category 5 Tests are performed at the respective 1 and 5-year intervals;
- that Periodic Category 1 and Periodic Category 5 Tests follow the applicable sections of *ASME A17.1- 2013/CSA B44-13, Safety Code for Elevators and Escalators* in the conduct and evaluation of tests (or a more recent code edition used for the design of the elevator);
- that the completion of, and results of these tests be recorded within the required equipment record or log maintained within the machine room, and;
- that the completion of, and results of these tests be submitted to TSASK.

Owners shall coordinate with their maintenance contractor the timing and scheduling of periodic tests for their elevators. Owners may tender testing services to any licensed contractor when periodic tests are not a part of their maintenance service contract. Failure to have a safety test completed at the required time may result in your elevator being sealed out-of-service.

BULLETIN APPLIES TO ALL ELEVATORS

This bulletin applies to all elevators including electric elevator types, hydraulic elevators, roped hydraulic elevators, rack and pinion elevators, LU/LA elevators, material lifts, and dumbwaiters.

PERIODIC CATEGORY SAFETY TESTS

Periodic Category Tests are an important part of a preventative maintenance program. In addition to regularly scheduled maintenance performed on elevators, Periodic Category 1, and Category 5 Tests shall be completed at their required intervals as described below, based on the age of the elevator. Owners should not consider these tests within the scope of their regular preventative maintenance activities to the extent that they delay normal maintenance activities, but as additional.

Periodic Category 1 and Periodic Category 5 Test checklists have been included to create a standard for the accurate and whole completion of all required component tests with applicable references to the ASME A17.1/CSA B44 code rules. Note that the required component Periodic tests may be completed individually over a period of scheduled visits, but all tests shall be completed within the calendar year.

The checklists for completing the Periodic Category 1 and Periodic Category 5 Tests include references to the *ASME A17.1-2013/CSA B44-13, Safety Code for Elevators and Escalators* Section 8.6 (Maintenance, Repair, Replacement, and Testing) as well as the *ASME A17.2-2012 Guide for Inspection of Elevators, Escalators, and Moving Walks* (Items/Parts). To be referenced as a minimum standard to be used as test procedures only. In addition, all company safety procedures/policies are to be followed if they differ in procedures referenced in this guide.

The completed Category Test Checklists shall be submitted to elevatorsafety@tsask.ca upon completion of the final component test, but no later than December 31. Periodic Category Tests shall be completed by a licensed Elevating Device Mechanic (EDM). EDM's are authorized by TSASK as outlined by 8.11.1.1.2 to perform and witness their own testing and submit a signed written report.

FREQUENCY OF REQUIRED SAFETY TESTS

All elevators installed on or after January 1, 2018:

Periodic Category 1 Tests shall be completed annually, and Periodic Category 5 Tests shall be completed every 5 years from the date of registration following Section 8.6 of the ASME A17.1/CSA B44 code edition the elevator construction was based upon.

For electric elevators installed before January 1, 2018:

The Periodic Category 1 Tests and the modified Periodic Category 5 Tests must be carried out at intervals not exceeding 5 years. The modifications of the Periodic Category 5 Tests are established within the Regulations (section 26) and as outlined in the included checklist.

For hydraulic and roped hydraulic elevators installed before January 1, 2018:

The Periodic Category 1 Tests and modified Periodic Category 5 Tests must be carried out at intervals not exceeding 5 years. The modifications of the Category 5 Tests are established within the Regulations (section 27) and as outlined in the included checklist.

For all elevators operating in an industrial application regardless of the year of installation:

In addition to the above required frequency of periodic tests, industrial application use elevators shall have the Periodic Category 1 Test carried out annually. An industrial application elevator is an elevator that operates in an extreme environment such as caustic, corrosive, explosive, or wet conditions or operates with direct exposure to the weather. All devices on a defined industrial site are included.

MAINTENANCE AND INSPECTION RECORDS

Every owner of an elevating device and every contractor shall maintain a record or log (commonly in the form of a logbook) for each elevating device that they own or maintain. The record or log shall contain up-to-date data and entries on all maintenance, tests, and inspection activities. The record or log shall be available at the location of the elevating device to an inspector, maintenance mechanic, and other persons designated by the owner. The record or log shall be kept for at least five years from the date of the last entry.



Category 1 Periodic Tests Checklist for all Elevators

UNIT DETAILS	Contractor Name & Licence #:
	Classification: Passenger Freight D/W LU/LA Material Other:
	Drive: Geared Gearless Hydraulic Rack & Pinion Drum MRL Other:
	Unit Licence #: Unit Identifier: Industrial: Y / N
	Address:
	City: Building Name:

CATEGORY 1 OR MODIFIED 5-YEAR TEST YEAR:	CONDITION/RESULTS/DATA NA= Not Applicable or Values/Corrections as applicable	DATE: MM/DD	MECHANIC'S INITIALS & EDM #
8.6.4.19.1 / 8.6.5.14.3(d) - Oil Buffers (Item 5.9.2.1(a))			
PRE-EXAMINATION			
TESTS			
POST-EXAMINATION			
8.6.4.19.2 / 8.6.5.14.3(c) - Safeties (Items 2.29.2(a-d) & 5.8.2)			
PRE-EXAMINATION			
TESTS SLOW SPEED			
POST-EXAMINATION			
8.6.4.19.3 / 8.6.5.14.3(b) - Governors (Items 2.13.2.1(a) & 2.13.2.2(a))			
EXAMINATION			
TESTS			
8.6.4.19.4 - Slack-Rope Devices and Stop Motion Switch on Winding Drum Machines (Item 2.20)			
EXAMINATION			
TESTS			
8.6.4.19.5 / 8.6.5.14.3(a) - Normal and Final Terminal stopping Devices (Items 2.20, 2.28.2.1, 3.5.2 & 3.6.2.1)			
EXAMINATION			
TESTS			
8.6.4.19.6 / 8.6.5.14.3(e) – Firefighters' Emergency Operation (Part 6)			
EXAMINATION			
TESTS			
8.6.4.19.7 / 8.6.5.14.3(f) – Standby or Emergency Power Operation (Item 1.17.2)			
* Test of auxiliary or alternate power if applicable			
EXAMINATION			
TESTS			



CATEGORY 1 OR MODIFIED 5-YEAR TEST YEAR:	CONDITION/RESULTS/DATA NA= Not Applicable or Values/Corrections as applicable	DATE: MM/DD	MECHANIC'S INITIALS & EDM #
8.6.4.19.8 / 8.6.5.14.3(g) – Power Operation of Door System (Items 1.8.1 & 1.8.2) or 8.6.5.14.6 Power Closing of Hoistway Doors and Sequence of Operation (Items 4.6 & 4.7)			
EXAMINATION			
TESTS			
8.6.4.19.9 – Broken Rope, Tape, or Chain Switch (Item 3.26.1)			
EXAMINATION			
TESTS			
8.6.4.19.10 – Functional Safety of SIL Rated Device(s) * Required if applicable to hydraulic elevators			
EXAMINATION			
CHECKOUT PROCEDURE			
8.6.4.19.11 – Ascending Car Overspeed Protection and Unintended Car Movement Devices			
EXAMINATION			
TESTS			
8.6.4.19.12 – Traction-Loss Detection Means			
TESTS			
8.6.4.19.13 – Broken-Suspension-Member and Residual-Strength Detection Means			
TESTS			
8.6.4.19.15 – Emergency Communications (Item 1.6) * Required if applicable to hydraulic elevators			
EXAMINATION			
TESTS			
8.6.4.19.16 - Means to Restrict Hoistway or Car Door Opening (Item 1.18) * Required if applicable to hydraulic elevators			
EXAMINATION			
TESTS			
8.6.5.14.1 - Relief Valve Verification of Setting and System Pressure Test (Item 2.31)			
PRE-EXAMINATION			
RELIEF TEST			
FULL SYSTEM TEST			
POST-EXAMINATION			



CATEGORY 1 OR MODIFIED 5-YEAR TEST YEAR:	CONDITION/RESULTS/DATA NA= Not Applicable or Values/Corrections as applicable	DATE: MM/DD	MECHANIC'S INITIALS & EDM #
8.6.5.14.2 - Hydraulic Cylinders and Pressure Piping (Item 2.36.2)			
PRE-EXAMINATION			
TESTS			
POST-EXAMINATION			
8.6.5.14.3(h) - Emergency Terminal Speed-Limiting Device and Terminal Stopping Device (Item 3.6.2.2)			
EXAMINATION			
TESTS			
8.6.5.14.3(i) - Low Oil Protection Operation (Item 2.39.2)			
TESTS			
8.6.5.14.4 - Flexible Hose and Fitting Assemblies (Item 2.34)			
PRE-EXAMINATION			
TESTS			
POST-EXAMINATION			
8.6.5.14.5 - Pressure Switch (Item 2.37)			
EXAMINATION			
TESTS			
8.6.5.14.7 - Slack-Rope Device (Items 3.31.1 & 3.31.2)			
EXAMINATION			
TESTS			
8.6.1.7.2 PERIODIC TEST RECORD (TEST TAG SECURELY ATTACHED TO THE CONTROLLER)			

MODIFIED 5-YEAR	Additional Tests for Pre-2018 Modified 5-Year		
8.6.4.20.2 / 8.6.5.16.1 - Governors (Items 2.13.2.1(b) & 2.13.2.2(b))			
PRE-EXAMINATION			
TESTS			
POST-EXAMINATION			

Category 5 Periodic Tests Checklist for all Elevators

UNIT DETAILS	Contractor Name & Licence #:	
	Classification: Passenger Freight D/W LU/LA Material Other:	
	Drive: Geared Gearless Hydraulic Rack & Pinion Drum MRL Other:	
	Unit Licence #:	Unit Identifier: Industrial: Y / N
	Address:	
	City:	Building Name:

CATEGORY 5 TEST YEAR:	CONDITION/RESULTS/DATA NA= Not Applicable or Values/Corrections as applicable	DATE: MM/DD	MECHANIC'S INITIALS & EDM #
8.6.4.20.1 / 8.6.5.16.1 - Car and Counterweight Safeties (Item 2.29.2(e))			
PRE-EXAMINATION			
TESTS			
POST-EXAMINATION			
8.6.4.20.2 / 8.6.5.16.1 - Governors (Items 2.13.2.1(b) & 2.13.2.2(b))			
PRE-EXAMINATION			
TESTS			
POST-EXAMINATION			
8.6.4.20.3 / 8.6.5.16.1 - Oil Buffers (Item 5.9.2.1(b))			
PRE-EXAMINATION			
TESTS			
POST-EXAMINATION			
8.6.4.20.4 - Driving Machine Brake(s)			
EXAMINATION			
TESTS			
8.6.4.20.6 - Emergency Terminal Stopping and Speed-Limiting Devices (Items 2.28.2.1(b) & 5.3.2.1(b))			
EXAMINATION			
TESTS			
8.6.4.20.7 - Power Opening of Doors (Item 1.10.2(a)) * Advanced Opening			
TESTS			
8.6.4.20.8 - Leveling Zone and Leveling Speed (Item 1.10.2(b))			
TESTS			

CATEGORY 5	CONDITION/RESULTS/DATA	DATE:	MECHANIC'S INITIALS &
TEST YEAR:	NA= Not Applicable or Values/Corrections as applicable	MM/DD	EDM #
8.6.4.20.9 - Inner Landing Zone (Item 1.10.2.1)			
TESTS			
8.6.4.20.10 - Braking System, Traction, and Traction Limits			
TESTS			
8.6.4.20.11 - Emergency Brake (A17.1 Rule 2.19.3.2)			
EXAMINATION			
TESTS			
8.6.5.16.2 - Coated Ropes			
MAGNETIC FLUX			
EXAMINATION			
8.6.5.16.3 - Wire Rope Fastenings (Item 3.23)			
EXAMINATION			
8.6.5.16.4 - Plunger Gripper (A17.1 Rule 8.10.3.2.5(n))			
PRE-EXAMINATION			
TESTS			
POST-EXAMINATION			
8.6.5.16.5 - Overspeed Valve(s) (Item 5.15.2)			
EXAMINATION			
TESTS			
8.6.5.16.6 - Class C2 Loading Freight Elevator (Item 2.17.2.2)			
TESTS			
8.6.1.7.2 PERIODIC TEST RECORD			
(TEST TAG SECURELY ATTACHED TO THE CONTROLLER)			

References for Elevator Contractors and Elevator Mechanics

This section identifies references considered and used in the development of the bulletin and checklists for elevator contractors and mechanics to make use of in better understanding the requirements.

The Passenger and Freight Elevator Regulations, 2017 Sections 23 to 27

- 23 General Duty Re Safe Condition
- 24 Standards for Certain New Elevators
- 25 Standards for Certain Existing Elevators
- 26 Periodic Inspections and Tests for Existing Electric Elevators
- 27 Periodic Inspections Testing of Existing Hydraulic and Roped Hydraulic Elevators

Modifications to Periodic testing requirements for electric elevators installed prior to 2018 are referenced in section 26 and further reference to comply with Rules 8.6.4.19 and 8.6.4.20.2 of the ASME A17.1/B44 code at intervals not exceeding 5 years.

Modifications to Periodic testing requirements for hydraulic and roped hydraulic elevators installed prior to 2018 are referenced in section 27 and further reference to comply with Rules 8.6.5.14, 8.6.4.19.2, 8.6.4.19.3 and 8.6.4.20.2 of the ASME A17.1/B44 code at intervals not exceeding 5 years.

The specific test and inspection requirements are found within the *ASME A17.1-2013/CSA B44-13, Safety Code for Elevators and Escalators* Section 8.6 Maintenance, Repair, Replacement, and Testing. Further reference to Section 8.11 Periodic Inspections and Witnessing of Tests is used.

As a reminder that the term elevator is expanded to include additional devices, refer to the following ASME A17.1/CSA B44 code references for special case elevators directing one to their specific test requirements. These include:

- 8.6.6.1.1 – Rack and pinion elevators shall be subject to all applicable tests specified in 8.6.4.19 & 8.6.4.20 as well as any additional testing requirements for the equipment.
- 8.6.7.2.1 – LU/LA elevators shall be subject to all applicable tests specified in 8.6.4.19, 8.6.4.20, and 8.6.5.14 through 8.6.5.16 as well as any additional testing requirements for the equipment.
- 8.6.10.1.1/8.6.10.2.1 – Material lifts and dumbwaiters shall be subject to all applicable tests specified in 8.6.4.19 and 8.6.5.14 (Part 7 of ASME A17.2) as well as any additional testing requirements for the equipment.

All alternative testing means shall be pre-approved by TSASK before being conducted. (Reference ASME A17.1/CSA B44 code sections 8.6.11.10, 8.6.1.7.2 and 8.6.4.20)

Note: If any alternative testing methods are performed, it shall be indicated in the results/comment area of the applicable test (8.6.1.7.2) and the alternative test method report (8.6.11.10.4) shall be attached to this document to be accepted as completed and compliant.

8.6.4.19.14 - Occupant Evacuation Operation – Not applicable per The Passenger and Freight Elevator Regulations, 2017 Appendix Part 1 repealing ASME A17.1 Rule 2.27.11.

TSASK

Elevator and Amusement Ride Inspections

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