

PD102

How to perform Elevator Inspections using ASME A17.2 and ASME Safety Code A17.1

CEUs: 2.3

PDHs: 23

Number of Days: 3

This comprehensive course is based on *ASME A17.1/CSA B44 Safety Code for Elevators and Escalators* and *ASME A17.2 Guide for Inspection of Elevators, Escalators & Moving Walk*. It provides a top-to-bottom look at inspection techniques and concepts including how to conduct elevator inspections and tests safely, both for scheduled updates and unexpected problems. It will take you inside the car, through the machine room/ space, by the hoistway, outside the car, and into the pit. The workshop format uses new videotape examples covering both inspectors' manuals and sections on inspection and testing.

Testing and exercises are used to emphasize the requirements and inculcate the requirements. These include measuring and calculating top car clearance, bottom runby and clearances, governor trip setting, overspeed switch settings, safety sliding distance, working pressure and relief valve setting, top and bottom runby, run limit timer, and other adjustments. Safety Integrity Level (SIL) rated devices are introduced and Fire Emergency Operation is covered.

Each participant will receive digital course notes, access to the *ASME A17.3 Safety Code for Existing Elevators and Escalators*; *ASME A17.2 Guide for Inspection of Elevators, Escalators & Moving Walk*; and the *ASME A17.1/CSA B44 Safety Code for Elevators and Escalators* via ASME's digital collection for the duration of the course.

Participants should bring:

- A scientific calculator

By participating in this course, you will learn to:

- Record and report results of inspections and tests
- Explain how to determine correct vertical clearances
- Identify acceptable refuge space on the car top and in the pit
- Describe the safety slide and buffer deceleration guidelines
- Identify the procedures to examine hydraulic and electrical equipment
- Explain top and bottom car, counterweight clearances, runby
- Identify working pressure for hydraulic elevators
- Explain governor pull through and release carrier pull out forces

Special Requirements

As a prerequisite, participants should have successfully completed **PD100, "Introduction to the Maintenance & Inspection of Elevators and Escalators."**

ASME A17.7/ CSA B44.7 Performance Based Safety Code for Elevators and Escalators will also be discussed.

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- Introduction to applicable codes
- Service safety video
- Applicable codes
- Inspection inside the car
- Inspection outside of the hoistway
- Inspection in the machine room
- Hoistway and top of car inspection
- Rope and fastening inspection
- Inspection in the pit
- Elevator construction safety
- Acceptance and periodic tests of electric elevators
- Firefighters' service tests and checklist
- Hydraulic machine room
- Hydraulic hoistway and pit
- Sample hydraulic elevator

Throughout the course:

- Review of inspection requirements for each item on the inspection checklist in the new *Inspectors' Manual for Elevators*
- Sample worksheets to record and clarify elevator test requirements and measurements
- Review safety practices for inspection and maintenance highlighted in the inspectors' manuals and *Elevator Industry Field Employees' Safety Handbook*
- Drawings and diagrams that illustrate code requirements and checking techniques
- Participant interaction with instructors and each other regarding inspection techniques