

ARTICLE IX. ELEVATORS AND CONVEYING SYSTEMS

Sec. 18-159. Adoption of the American Society of Mechanical Engineers Safety Code for Elevators and Escalators; amendments.

The American Society of Mechanical Engineers Safety Code for Elevators and Escalators, ASME A17.1-2004 with ASME A17.1a-2005 addenda and ASME A17.1S-2005 Supplement, is adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of this section. Provisions of this article are in addition to the provisions of ASME A17.1-2004 with ASME A17.1a-2005 addenda and ASME A17.1S-2005 Supplement. The following provisions coinciding with the provisions of ASME A17.1-2004 with ASME A17.1a-2005 addenda and ASME A17.1S-2005 Supplement supersede, or delete, when indicated, the corresponding provisions of ASME A17.1-2004 with ASME A17.1a-2005 addenda and ASME A17.1S-2005 Supplement.

All references within the model codes to any building, electrical, gas, mechanical, plumbing, sewage disposal, elevator, energy conservation, or existing building code shall be construed to be a reference to the respective building, electrical, gas, mechanical, plumbing, sewage disposal, elevator, energy conservation, or existing building code specifically adopted by reference in articles II through XIV of this chapter.

8.10.1.1.3 The inspector shall meet the qualification requirements of the Authority having Jurisdiction.

8.10.5.1 is deleted.

8.10.5.3 is deleted.

8.10.5.8 is deleted.

8.11.1.1 Persons Authorized to make Periodic Inspections and Test. The inspector shall meet the qualification requirements of the Authority having Jurisdiction.

8.11.1.3 Periodic Inspection and Test Frequency. The frequency of periodic inspection and test shall be annual (one year) per the requirement of Periodic Inspection and Category 1 in Appendix N and per requirements of Category 5 in Appendix N every five (5) years.

8.11.3.3 is deleted.

8.11.5.1 is deleted

8.11.5.2 is deleted.

8.11.5.3 is deleted.

8.11.5.4 is deleted.

8.11.5.5 is deleted

8.11.5.7 is deleted.

8.11.5.8 is deleted

8.11.5.9 is deleted.

8.11.5.11 is deleted.

(Code of Gen. Ords. 1967, § 9.5(1).1; Ord. No. 52722, 5-8-81; Ord. No. 61386, 8-10-89; Ord. No. 911125, 4-23-92; Ord. No. 010783, 8-23-01; **Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08**)

Sec. 18-160. Adoption of the American Society of Mechanical Engineers Safety Standard for Platform Lifts and Stairway Chair Lifts; amendments.

The American Society of Mechanical Engineers Safety Standard for Platform Lifts and Stairway Chair Lifts, ASME A18.1- 2003, is adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of this section. Provisions of this article are in addition to the provisions of ASME A18.1- 2003. The following provisions coinciding with the provisions of ASME A18.1- 2003 – supersede, or delete, when indicated, the corresponding provisions of ASME A18.2-2003.

All references within the model codes to any building, electrical, gas, mechanical, plumbing, sewage disposal, elevator, energy conservation, or existing building code shall be construed to be a reference to the respective building, electrical, gas, mechanical, plumbing, sewage disposal, elevator, energy conservation, or existing building code specifically adopted by reference in articles II through XIV of this chapter.

1.1.3 Application. This Standard applies to new installation only, except Periodic inspection and test in Section 10 shall apply to existing equipment.

10.1.1 is deleted.

10.2.1 is deleted.

10.3 Periodic Inspection and Test

Inspection and test periods. In addition to the routine inspection and test, applicable inspections and test specified in para. 10.3.1 shall be performed in intervals not longer than 1 year, and the applicable inspections and test specified in para. 10.3.3 shall be made at intervals not longer than 5 years. Periodic

inspection shall cover only equipment in sections 2.3 and 4. Equipment covered in sections 5, 6 and 7 shall not receive Periodic Inspections and Test.

(Ord. 071193, § 1, 1-3-08)

**10.3.2 is deleted.
(Remainder of Section 10.3 remains unchanged.)**

Secs. 18-161—18-175. Reserved.

Sec. 18-176. Adoption of the American Society of Mechanical Engineers Safety Code for Existing Elevators and Escalators; amendments.

The American Society of Mechanical Engineers Safety Code for Existing Elevators and Escalators, ASME A17.3-2005, is adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of this section. Provisions of this article are in addition to the provisions of ASME A17.3-2005. The following provisions coinciding with provisions of ASME A17.3-2005 supersede, or delete, when indicated, the corresponding provisions of ASME A17.3-2005:

1.1.2 Equipment Not Covered by This Code.

(hh) Electric freight elevators installed before 1960, and meeting the following criteria shall be exempt from specific requirements as specified in this code, providing that there has been no change of occupancy of the building:

- (1) Speed no greater than 100 feet per minute.
- (2) Travel distance not greater than ten levels.
- (3) Inspected quarterly by a registered elevator service company.
- (4) Operated and ridden by employees only.
- (5) Constant pressure operation.

2.1.3 Projections in Hoistway.

Hoistway enclosures shall have substantially flush surfaces on the hoistway sides used for loading and unloading, subject to the following:

- (a) Landing sills, hoistway doors, door tracks and hangers shall be permitted to project inside the hoistway enclosure.
- (b) Landing sills, except for elevators equipped with vertically sliding biparting counterbalanced doors or with vertically sliding counterweighted

doors which slide down to open, shall be guarded on the underside with guard plates of smooth metal of not less than 0.0598 inches (1.519 mm) in thickness extending not less than the full width of the car entrance and securely fastened in place as follows:

(1) Where a car-leveling device is provided and the hoistway edge of the sill is either flush with or projects into the hoistway, the guard shall have a straight vertical face extending below the sill not less than the depth of the leveling zone plus three inches (76 mm).

Where the sill projects inward from the hoistway enclosure the bottom of the guard shall also be beveled at an angle of not less than 60 degrees nor more than 75 degrees from the horizontal or the guard shall be extended from the hoistway edge of the landing sill to the top of the door hanger pocket of the next entrance below.

The guard is not required for freight elevators with sills not projecting inward from the hoistway enclosure.

(2) Where no car-leveling device is provided and the sill projects inward from the general line of the hoistway, the guard shall be either beveled at an angle of not less than 60 degrees nor more than 75 degrees from the horizontal, or it shall be permitted to have a straight vertical face extending from the hoistway edge of the landing sill to the top of the door hanger pocket of the next entrance below.

Exception: Freight elevators identified in section 1.1.2 (hh).

2.1.4 Pipes Conveying Gases, Vapors, or Liquids.

Pipes conveying gasses, vapors, or liquids and not used in connection with the operation of the elevator, which if discharged into the hoistway could be hazardous, shall not be permitted in a hoistway except as covered by 2.1.4(a) through (e)

(a) Steam and hot water pipes are permitted in hoistways, for the purpose of heating these areas only, subject to the following:

- (1) Heating pipes shall convey only low-pressure steam [5 psi (34kPa) or less] or hot water [212 deg F (100 deg C) or less].
- (2) All risers and return pipes shall be located outside the hoistway.
- (3) Traps and shutoff valves shall be provided in accessible locations outside the hoistway.

(b) Only ducts for heating, cooling, ventilating, and venting the hoistway, machine room, or machinery space are permitted.

(c) Pipes for sprinklers only are permitted in hoistways subject to the following:

- (1) All risers and returns shall be located outside of the hoistway.
- (2) Branch lines in hoistway shall supply sprinklers at not more than one floor level.

(d) Piping for pit and sump pumps is permitted.

(e) Where such pipes or ducts are currently in the hoistway cannot be removed or rerouted, they shall be securely fastened to prevent excessive vibration.

- (1) No new pipes or ducts shall be installed in the hoistway unless they directly pertain to the operation of the elevator.

2.6.1 Doors or Gates Required.

Exception: Freight elevators identified in section 1.1.2 (hh) shall be permitted to have the hoistway landing guarded to a minimum height of 66 in. (1.56m) above the landing sill.

3.3.5 Exception: Freight elevators identified in section 1.1.2 (hh) are exempted from protection of platforms against fire.

3.4.1 Car Enclosures.

(a) *Passenger elevators.* Car enclosures shall be solid, without perforations. Openings or hinged or removable panels in an enclosure, other than as required for signal, operating or communication equipment, entrances, vision panels, emergency exists and ventilation, are prohibited.

(b) *Freight elevators.* Car enclosures may be perforated; however, the enclosure in front of and extending six inches (152 mm) on each side of the counterweight runway shall be unperforated. These perforations shall reject a 1.5 inch (38 mm) diameter ball.

Exception: Freight elevators identified in section 1.1.2 (hh) may be enclosed to a height of 66 inches, without perforations, except the portion of the enclosure in front and extending six inches on each side of the counterweights shall be without perforations and extend to the full height of the car crosshead or not less than eight feet if there is no crosshead.

(c) *Car tops.* The car top shall be of sufficient strength to sustain a load of 300 pounds (136.2 kg) applied on any square area 2 feet (0.61 m) on a side and 100 pounds (45.4 kg) applied at any point, except the hinged sections next to the care entrance. Simultaneous application of these loads is not required.

Exception: Freight elevators identified in section 1.1.2 (hh) are exempt from the structural design requirements for car tops.

3.5.1 Car Safeties.

The car of every elevator suspended by wire ropes shall be provided with a safety capable of stopping and sustaining the car with rated load. When the safety is operated by a governor, the safety shall be capable of stopping and sustaining the car with rated load from governor tripping speed. Existing car safety devices shall be maintained on all cars for which safeties are provided.

Exception: Freight elevators identified in section 1.1.2 (hh) employing corner suspension or having multiple guides shall be permitted to be exempt from the above requirements, provided that the elevator equipment was not originally equipped with safety devices.

3.5.6 is deleted.

3.6.2 Exception: Freight elevator identified in section 1.1.2 (hh) shall be permitted to have governor ropes of vegetable fiber, providing they meet the strength and size of the original vegetable fiber rope.

3.10.3 Top-of-Car Operating Devices.

All elevators except those which are identified in section 1.1.2 (hh) shall conform to the following:

(a) Elevators with automatic or continuous-pressure operation shall have a continuous-pressure button-operating switch mounted on the top of the car for the purpose of operating the car solely from the top of the car. The device shall operate the car at a speed not exceeding 150 ft/min (0.76 m/s).

(b) The means for transferring the control of the elevator to the top-of-car operating device shall be on the car top and located between the car crosshead and the side of the car nearest the hoistway entrance normally used for access to the car top.

3.10.10 is deleted.

3.11.1 Car Emergency Signaling Devices.

Exception: Freight elevator identified in section 1.1.2 (hh).

3.11.1(b) Exception: Existing elevator installed prior to the adoption of this code that have maintained the following device: A weatherproof audible signaling device with a minimum sound rating of 80 dBA operated from the alarm switch and emergency stop switch inside the car and identified “ELEVATOR EMERGENCY-CALL POLICE”, in letters not less than two inches (51mm) high. The device shall be mounted on the outside

of the building near the main entrance and located so that the sign can be read from the entrance sidewalk. Only one outside signal is required if operable from all cars of all elevators of the type specified in the building.

3.11.3 Firefighters service

Elevators with firefighters' service that are part of a group shall conform to identical firefighters' service operation requirements regardless of which edition of A17.1 they complied with at the time of installation or alteration.

The Phase I and Phase II switches for all elevators in a building or site shall be operable by the same key.

4.5.1 (b) is deleted.

4.5.2 (d) is deleted.

4.5.2 (f) is deleted.

PART VI DUMBWAITERS is deleted.

PART VII HAND ELEVATORS is deleted.

PART VIII SIDEWALK ELEVATORS is deleted.

(Code of Gen. Ords. 1967, § 9.5(2).1; Ord. No. 911125, 4-23-92; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

Sec. 18-177—18-192. Reserved.

Sec. 18-193. Adoption of American National Standard Safety Requirements for Personnel Hoists.

The American National Standard Safety requirements for Personnel Hoists, ANSI A10.4-2004, published by American National Standards Institute, is adopted and incorporated in this article by reference as if fully set forth.

(Code of Gen. Ords. 1967, § 9.5(3).1; Ord. No. 52722, 5-8-81; Ord. No. 61386, 8-10-89; Ord. No. 911125, 4-23-93; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

Sec. 18-194—18-209. Reserved.