ASME A17.3 2005 Oregon Amendments

A17-3 Amendments 2004.doc
Last Revised: 02/01/2005 2:36 PM

ASME A17.3
Oregon Amendments
Effective April 1, 2005

Prepared by Building Codes Division, Elevator Safety Program dated December 15, 1995, and initially effective April 1, 1996 and as amended through April 1, 2005.

PART II

HOISTWAYS AND RELATED CONSTRUCTION FOR ELECTRIC ELEVATORS

2.2.2 Access to Machine Rooms and Machinery Spaces

(a) A permanent means of access to elevator machine rooms and machinery spaces shall be provided for authorized persons. Access doors to machine rooms and machinery spaces shall be kept closed and locked. Where the installation of a conventional entry lockset is impractical, the existing access door or panel shall be equipped with a snap-action lock or padlock and hasp. Where a padlock and hasp are provided the hasp shall be fastened with tamper-proof fasteners and the lock securely chained to the door frame or door panel.

Where the normal access to the machine room or machinery space is by vertical ladder a lockable enclosure that prevents access to the ladder may be used where the installation of trap doors or conventional doors are structurally impractical.

Access to a machine room shall not be through the hoistway.

(b) Conventional door and jamb installations shall be provided with a knob and lock of a spring type arranged to permit the door to be opened from the inside without a key. The lock shall be of the type that cannot be left in the unlocked position.

(c) Trap doors provided for access through floors or roofs shall be hinged and counter-balanced. If this access door opens directly into a machine room or machinery space, it shall be kept closed and locked.

(d) Each elevator machine room and machinery space not located within the machine room shall have a sign posted on the outside of the access door. The sign shall read, **"Authorized Personnel Only - Storage or Installation of Equipment Not Pertaining to the Elevator is Prohibited"**. Letters shall be not less than 9.5-mm (3/8-in.) high. Signs shall be plastic or metal and securely fastened so as not to be readily removed without the use of tools.

(e) The primary access route to, and in front of, all access doors to all machine rooms and machinery spaces shall be kept unobstructed. A minimum horizontal clearance of 1220 mm (48-in.) shall be maintained in front of machinery space access doors and be no less than 150-mm (6-in.) from either side of the access door.

(f) Where existing building equipment (columns, ducts, pipes) encroach on these dimensions of this rule, all edges or corners below 2000-mm (78-in.) shall be protected to prevent injury.

2.2.3 Lighting

Permanent electric lighting shall be provided in all machine rooms and machinery spaces. All machine rooms shall be equipped with a switch controlling the lighting for this space only. The switch shall be located inside the machinery space or room and as close to the lock-jamb side of the access door as practical. The minimum illumination measured at floor level shall be a minimum of 54-lux (5-ftc) or that required by the code under which the conveyance was installed. Illumination levels shall be evenly distributed over the entire floor area.

2.2.4 Ventilation

Machine rooms shall be provided with natural or mechanical ventilation. The ambient machine room temperature shall not exceed the equipment manufacturer's specifications.

Where no specifications are available, the machine room temperature shall be a minimum of 13°C (55°F) or not more than 38°C (100°F).

2.3.1 Access to Pits

Means of access for authorized personnel shall be provided to all pits and shall conform to this rule. All pits 900 mm (35 in.) or greater in depth shall have a permanent non-combustible ladder installed conforming to ASME A17.1, 2004, Section 2.2. Alternate methods of safe access to pits shall be considered where clearances between the elevator car and the hoistway wall make the installation of a ladder technically infeasible. Where no practical means for the installation of a ladder is possible, an exception to the code may be considered by the Division.

All elevators shall have a pit of sufficient depth to provide a minimum clearance of 610-mm (24-in.) between the floor of the pit and the lowest structural member of the car or platform when the car is resting on fully compressed buffers or bumpers. If it is structurally impractical to obtain sufficient pit depth, the buffer springs shall be extended as far as possible without interfering with the elevator bottom run-by. Signs shall be posted beneath the elevator car facing the openings normally used for access to the pit area. The sign(s) shall read **"CAUTION: REDUCED CLEARANCE"**. Sign colors shall be an approved safety color and contrast to the surrounding background. Letters shall be a minimum of 50-mm (2-in.) high.

Access doors, where provided, shall be kept closed and locked.

2.3.4 Pit Illumination

All elevator pits shall be provided with a minimum illumination of 54-lux (5-ftc) at floor level and evenly distributed over the entire floor area. Lamps shall be properly guarded to prevent accidental contact and breakage.

2.4.4 Top Car Clearance

Where not specified by the code under which the elevator was installed, a minimum clearance of 610-mm (24-in.) between the highest part of the car or crosshead and the overhead structure is required when the car reaches its extreme limit of travel. Where overhead clearances are technically infeasible due to existing building structure, the clearance may be reduced subject to:

(1) the car top shall be equipped with a car top operating device as required by Item 3.10.3;

(2) Car top work light conforming to ASME A17.1 2004, Req. 2.14.7.1.4 shall be required;

(3) Overhead beams or pipes penetrating below the allowed clearance shall be safety stripped with approved safety markings; and

(4) a sign shall be posted facing each side used for access to the car top reading, **"CAUTION-LOW OVERHEAD"**. Letters shall be a contrasting color to the surrounding background and be not less than 50-mm (2-in.) high.

2.6.6 Pull Straps

All manually operated biparting or vertical hoistway doors and car gates shall be provided with pull straps fastened on the inside and outside of the upper door panel, vertical door panel or car gate. On multi-speed doors the straps shall be attached to the fast or leading door panel.

2.8.2 Car Doors and Gates

All door-reopening devices currently installed on the elevator shall be operational and conform to operational requirements of this rule. Photo eyes shall not be used as the sole means for compliance to this rule.

PART III

MACHINERY AND EQUIPMENT FOR ELECTRIC ELEVATORS

3.4.4 Emergency Exits

(b) Side Emergency Exits. All elevators with side emergency exits shall have the exit door(s) permanently secured and the related door contact device removed. Elevators affected by this rule that do not have a car top emergency exit shall be required to install a car top emergency exit according to ASME A17.1, 2004, Req. 2.14.1.5 . New or modified car top emergency exits are required to comply with ASME A17.1, 2004, Section 8.4.4.1 when applicable to the installation.

3.8 Driving Machines and Sheaves

3.8.5 Guarding of Open Gears and Sheaves. Exposed gears, sprockets, tape and rope sheaves in the machine room and any ropes and tapes passing through secondary levels shall be guarded to prevent accidental contact and injury. Ropes and tapes passing through areas outside the hoistway shall be guarded on all sides from floor to finished ceiling. Access doors used for maintenance shall not be obstructed.

3.10.5 Power Supply Line Disconnecting Means

(a) A fused disconnect switch or a circuit breaker shall be installed and connected into the power supply line to each elevator motor or motor generator set and controller. The disconnecting means shall be located as required by ANSI/NFPA 70.

3.10.11 Grounding

All electrical equipment shall be grounded as required by **ANSI/NFPA 70**.

3.10.12 Floor Stopping Accuracy

All elevators with automatic leveling control shall maintain a floor stopping accuracy of 13-mm (½-in.) with rated load or less. Elevators without automatic leveling shall maintain floor-stopping accuracy within tolerances as required by the original manufacturer.

In all cases, floor-stopping accuracy shall be as close to the floor level as equipment adjustment will allow.

3.11.1 Car Emergency Signaling Devices

(b) A telephone shall be installed in each elevator and connected to a location that is able to take appropriate action any time there is an elevator related emergency. A standby or emergency power system shall be provided conforming to the requirements of Item 3.11.1(a)(3) of this rule.

In passenger elevators or freight elevators allowed for passenger use, installed on or after January 1, 1993, a two-way communication device complying with federal and state accessibility requirements shall be installed.

3.11.1 Car Emergency Signaling Devices

(c) Elevators with telephones not currently equipped with automatic dialers shall have a permanent legible sign or label clearly visible when the device is in use. Where no telephone cabinet is provided the sign or label shall be affixed adjacent to the telephone device.

The sign shall include:

(1) Name and address of the building;

(2) Elevator designation or number; and

(3) Dialing instructions with emergency telephone number.

The telephone number shall be for a location available with personnel continuously capable to take appropriate action to any elevator emergency.

Telephones provided with automatic dialers shall have a sign or label requiring only Items (c)(1) and (c)(2) of this rule

All telephones or communication devices with special features shall be provided with instructions for use posted in plain sight while using the device.

PART VI

DUMBWAITERS

6.1.6.1 Hoistway-Door Locking Devices for Power Dumbwaiters

Unless otherwise specified by the dumbwaiter safety code in effect at time of installation, all electric and hydraulic power dumbwaiters shall be equipped with electro-mechanical interlocks or combination mechanical locks and contacts to prevent the operation of the dumbwaiter unless all doors are closed and locked. The interlock shall be so arranged as to prevent the door from opening if the dumbwaiter is more than 75-mm (3-in.) from sill level.

PART VIII

SIDEWALK ELEVATOR

8.2.6 Car Enclosure and Car Doors and Gates

(a) Car enclosures and car doors and gates shall not be less than 1830-mm (72-in.) high, or to the height at which the bow-iron begins the arc, whichever comes first. Car tops are not required.

(b) Car doors or gates may be omitted providing the elevator can not be operated from the car platform.

APPENDIX C

A17.1 - 1987 RULES 211.3-211.8

(See A17.3, 3.11.3)

211.3 Firefighter's Service - Automatic Elevators

Except as modified by this Rule, all automatic (non-designated attendant) passenger elevators and freight elevators permitted to carry passengers under A17.1, 2004, Req. 2.16.4 with a rise of 8-m (26-ft.) or more are required to comply with the requirements Phase I Emergency Recall Operation and Phase II Emergency Firefighter's Operation.

Except where modified by this rule, all elevators with a travel of 21-m (70 ft.) or less are not required to be provided with Phase II operation unless so deemed necessary by the fire marshal having jurisdiction.

(1) Passenger elevators with single automatic push-button control are only required to comply with ASME A17.3, Appendix C, Rule 211.3a.

(2) All automatic (non-designated attendant) passenger elevators located in primary and secondary educational facilities shall be required to comply with Phase I Emergency Recall Operation and Phase II Emergency Firefighter's Operation.

(3) **Group Systems.** All elevators in a group system (2 or more cars) shall be provided with Phase II fire service operation unless approved otherwise by the local fire marshal. The local fire marshal may designate only certain cars within the group to be provided with Phase II operation. When so designated, the following shall apply:

(a) The local fire marshal shall provide written documentation to the Division stating which cars are to be provided with Phase II operation. The determination of which cars to select for Phase II operation shall include the following:

(1) Phase II operation shall be provided to at least one elevator in each hoistway; and

(2) Elevators supplied by emergency power shall be given priority in the selection of Phase II designated cars.

(b) A means shall be provided to clearly identify those cars within the group provided with Phase II operation.