

DEPARTMENT OF ENERGY, LABOR, AND ECONOMIC GROWTH

DIRECTOR'S OFFICE

ELEVATORS

Filed with the Secretary of State on April 22, 2010

These rules take effect June 21, 2010

(By authority conferred on the director of the department of energy, labor, and economic growth by section 8 of 1967 PA 227, MCL 408.808 and section 8 of 1976 PA 333, MCL 338.2188, Executive Reorganization Order No. 2008-20, MCL 445.2025)

R 408.7003, R 408.7024, R 408.7032, R 408.7034, R 408.7034a, R 408.7035, R 408.7036, R 408.7040, R 408.7041, R 408.7043, R 408.7043a, R 408.7045, R 408.7046, R 408.7047a, R 408.7048, R 408.7054a, R 408.7054b, R 408.7056, R 408.7057a, R 408.7058, R 408.7058a, R 408.7058b, R 408.7059, R 408.7059a, R 408.7062, R 408.7062a, R 408.7064, R 408.7065, R 408.7066, R 408.7066a, R 408.7067, R 408.7069, R 408.7071, R 408.7080, R 408.7081, R 408.7081a, and R 408.7092 of the Michigan Administrative Code are amended, and R 408.7053, R 408.7070, and R 408.7073 of the Code are rescinded as follows:

CHAPTER 1. GENERAL PROVISIONS

R 408.7003 Applicability of national standards.

Rule 3. The following standards are adopted by reference.

(a) The following standards are available from the American Society of Mechanical Engineers (ASME), 22 Law Drive, Box 2900, Fairfield, New Jersey 07007-2900, at a cost as of the time of adoption of these rules, as stated in this subrule:

(i) ASME A17.1-2007 safety code for elevators and escalators, except for sections 1.2.1(b), 1.2.1(c), 2.5.1.5.3, 2.8.3.3.2, 2.8.6, 2.11.1.3, 2.11.1.4, 2.11.7.2, 2.11.7.2.1, 2.11.7.2.2, 2.11.7.2.3, 2.11.7.2.4, 2.11.7.2.5, 2.14.2.2(f), 2.14.2.6, 2.14.5.8.2, 2.16.5.1.3, 2.22.2, 3.18.3.8.3, 3.19.5.2, 3.22.1.6, 5.3.1.1.1, 5.3.1.1.2, 5.3.1.2.1, 5.3.1.14.3, 5.4.10.2, 8.6.5.8, 8.6.11.4, 8.10.1.1.3, 8.11.1.1, 8.11.1.1.1, 8.11.1.1.2. Cost \$250.00.

(ii) ASME A17.2-2007 guide for inspection of elevators, escalators, and moving walks. Cost \$165.00.

(iii) ASME A18.1-2008 safety code standard for platform lifts and stairway chairlifts, except for sections 2.1.2, 3.10.2, 10.1.1, 10.1.2, 10.1.3.3, 10.2.1, 10.1.4. Cost \$87.00.

(iv) ASME A90.1-2003 safety standard for belt manlifts. Cost \$57.00.

(b) A10.4-2007, the American national standards institute (ANSI), safety requirements for personnel hoist and employee elevators for construction and demolition and operations, except for sections 24.1.2.1, 26.4.8.1, 26.6, and 30.4, is available from ANSI at 1430 Broadway, New York, New York, 10018. Cost \$69.00.

(c) The following standards are available from American Society for Testing and Materials, (ASTM), 100 Bar Harbor Drive, 2 Conshohocken, PA 19428-2959, at a cost as of the time of adoption of these rules, as stated in this subrule:

(i) ASTM D 2667, 'Standard test method for biodegradability of alkylbenzene sulfonates'. Cost \$43.00.

(ii) ASTM E 648, standard test method for critical radiant flux of floor-covering systems using a radiant heat energy source. Cost \$43.00.

(iii) ASTM F 714, standard specification for polyethylene (PE) plastic pipe (SDR-PR) based on outside diameter'. Cost \$37.00.

(d) The standards adopted in subdivisions of this subrule are also available for inspection at the Michigan Department of Energy, Labor, and Economic Growth, Bureau of Construction Codes, 6546 Mercantile Way, Lansing, Michigan 48911. Copies may be obtained from the bureau at the cost of the individual codes as noted on subdivisions of this subrule, plus the department's cost for shipping and handling.

(e) All references to NFPA 70 mean the Michigan electrical code. The Michigan electrical code is available for inspection or may be purchased from the Michigan Department of Energy, Labor, and Economic Growth, Bureau of Construction Codes 2501 Woodlake Circle, Okemos, Michigan 48864, at a cost as of the time of adoption of these amendatory rules of \$82.50 each.

R 408.7024 Applicability of rules and manual.

Rule 24. Elevators as defined in section 3 of the act installed before the effective date of this code edition shall comply with the Michigan elevator laws and rules in effect at the time of adoption of this code until the device is altered. All other approved existing features or components of the elevator shall comply with these rules and shall be maintained as described in the American society of mechanical engineers (ASME) guide for inspection of elevators, escalators, and moving walks ASME A17.2-2007, which is adopted by reference in R 408.7003.

CHAPTER 3. ASME A17.1 MODIFICATIONS

R 408.7032 Machinery space, machine rooms, control spaces, and control rooms.

Rule 32. Section 2.7 of the ASME A17.1 code is amended to read as follows:

2.7 A machinery space outside the hoistway containing an electric driving machine and an elevator controller shall be a machine room. The electric driving machine shall be located in a machine space within the elevator hoistway or outside the hoistway in an elevator machine room. A controller shall be accessible only from a machine room, control room, or hoistway.

R 408.7034 Enclosure of machine rooms and machinery spaces.

Rule 34. Section 2.7.1 of the ASME A17.1 code is amended to read as follows:

2.7.1 Machines, control equipment, sheaves, and other machinery shall not be exposed to the weather. Machine room, control room, and machinery-space enclosures shall conform to section 2.7.1.1 or 2.7.1.2, and shall also conform to 2.7.1.3 of the ASME A17.1 code, as applicable.

Machine rooms and control rooms shall be located at a hoistway landing associated with the equipment within the room. Elevator machine and control rooms may be located overhead, adjacent to, underneath the hoistway, or at a remote location. The entrance to the machine room or control room shall be not more than 25 feet, clear unobstructed walking pathway from the elevator hoistway door. The distance from the machine room door to the hoistway door may be over 25 feet when the machine room is located directly above the hoistway in a conventional layout. Pit and hoistway access doors shall not be a direct access between a hoistway enclosure and machine room or control room.

Access to machine rooms, control rooms, machine spaces, or control spaces shall not be through restrooms, lavatories, locker rooms, or associated vestibules. Where enclosed ceilings are required or provided they shall be of a solid type with no access panels. Drop type ceilings shall not be permitted. Machine rooms, control rooms, machinery spaces, and control spaces shall not be used as a pass through or for access to other areas. Building access panels or doors are prohibited in these areas.

R 408.7034a Location of equipment.

Rule 34a. Section 2.7.6.3.2 of the ASME A 17.1 code is amended to read as follows:

2.7.6.3.2 The motor controller shall be located in a machinery space within the hoistway, a machine room, or control room. A motor controller shall not be located outside the specified spaces.

R 408.7035 Sprinkler systems.

Rule 35. Section 2.8.3.3 of the ASME A17.1 code is amended to read as follows:

2.8.3.3 Sprinkler systems conforming to the Michigan building code, R 408.30401 to R 408.30547, may be installed in the hoistway, machinery space, machine room, control space, or control room. Sprinklers installed in elevator shafts and machine rooms shall meet the following requirements:

(1) In hoistways a side wall spray sprinkler shall be installed at the bottom of each hoistway, not more than 24 inches and not less than 12 inches above the floor of the pit. A guard shall be installed on the sprinkler head to prevent accidental tripping or activation.

(2) In elevator machine rooms automatic sprinklers of ordinary or intermediate temperature rating shall be provided.

Each system shall have a readily accessible shut-off valve, that is of the electronically supervised type, located outside the protected area. Where a fire panel is available, these valves shall be properly connected. Sprinkler systems are also subject to the requirements of sections 2.8.3.1.2 to 2.8.3.3.4, and 2.8.3.5, of the ASME A17.1 code.

R 408.7036 Reopening device for power-operated car doors or gates.

Rule 36. Section 2.13.5.1 of the ASME A17.1 code is amended to read as follows:

2.13.5.1 Where required by section 2.13.3.4 or 2.13.4 of the ASME A17.1 code, a power-operated car door shall be provided with a reopening device that will function to stop and reopen a car door and the adjacent landing door sufficiently to permit passenger transfer if the car door or gate is obstructed while closing. The reopening device used shall be effective for substantially the full vertical opening of the door in compliance with section 2.13.4.2 of the ASME A17.1 code.

The door reopening device and door open button shall remain in operation at all times when the elevator is operating on normal service. Any devices which are designed to bypass either door opening device when the door is open for a predetermined amount of time (nudging) shall not be installed. This does not include operation under fire and other emergency conditions. For operation under fire and other emergency conditions, if the closing kinetic energy is reduced to 3.5 J (2.5 ft-lbf) or less, the reopening device may be rendered inoperative.

R 408.7040 Fire alarm initiating devices.

Rule 40. Section 2.27.3.2.1 of the ASME A17.1 code is amended to read as follows:

2.27.3.2.1 Fire alarm initiating devices shall be installed in compliance with the requirements of the Michigan electrical code, R 408.30801 to R 408.30880, in all of the following locations:

- (a) Each floor served by the elevator.
- (b) The associated elevator machine room, control space, or control room.
- (c) The elevator hoistway, when required.

The fire alarm initiating devices required by section 2.27 of the ASME A17.1 code shall be installed as a stand-alone system. The initiating devices shall be installed so that only the elevator or group of elevators which are affected by the emergency shall be captured. No electrical connection shall be permitted between the stand-alone system and any other initiating device or fire alarm system, except, that the initiating devices may provide a supervisory signal to the fire panel. These initiating devices are part of the elevator control system and shall be installed by a licensed elevator journeyman or under the direct supervision of a licensed elevator journeyman.

Exception: A dry contact may be made available in the elevator controller to be connected to the building fire alarm system for supervision of the elevator stand-alone system. The dry contact shall be located such that any malfunction of either system will not sacrifice the integrity of the other system.

Fire alarm audible alarms shall not be placed within elevator machine rooms or control rooms. Visible alarm notification shall be provided in elevator machine rooms or control rooms when alarm notification appliances are required by the Michigan building code described in section 907.9.2.

R 408.7041 Machinery spaces, machine rooms, control spaces, and control rooms.

Rule 41. Sections 3.7 and 3.7.1 of the ASME A17.1 code is amended to read as follows:

3.7 A machinery space outside the hoistway containing a hydraulic machine and an elevator controller shall be a machine room. The hydraulic machine shall be located in a machine space within the elevator hoistway or outside the hoistway in an elevator machine room. The elevator controller shall be accessible only from a machine room, control room, or hoistway.

3.7.1 Hydraulic machines, control equipment, sheaves, and other machinery shall not be exposed to the weather. Machine room, control room, and machinery-space enclosures shall conform to the requirements of sections 2.7.1 to 2.7.7 and 2.7.9 of the ASME A17.1 code and the following:

Machine rooms and control rooms shall be located at a hoistway landing associated with the equipment within the room. Elevator machine and control rooms may be located overhead, adjacent to, underneath the hoistway, or at a remote location. The entrance to the machine room or control room shall be not more than 25 feet, clear unobstructed walking pathway from the elevator hoistway door. The distance from the machine room door to the hoistway door may be over 25 feet when the machine room is located directly above the hoistway in a conventional layout. Pit and hoistway access doors shall not be for direct access between a hoistway enclosure and machine room or control room.

Access to machine rooms, control rooms, machine spaces, or control spaces shall not be through restrooms, lavatories, locker rooms, or associated vestibules. Where enclosed ceilings are required or provided they shall be of a solid type with no access panels. Drop type ceilings shall not be permitted. Machine rooms, control rooms, machinery spaces, and control spaces shall not be used as a pass through or for access to other areas. Building access panels or doors are prohibited in these areas.

R 408.7043 Cylinder protection.

Rule 43. Section 3.18.3.8.1 of the ASME A17.1 code is amended to read as follows:

3.18.3.8.1 Cylinders not completely exposed above ground shall be monitored by an approved means and protected from corrosion due to galvanic or electrolytic action, salt water, or other underground conditions. An outer protective cylinder casing of high density poly ethylene (HDPE) or poly vinyl chloride (PVC) is required on a new hydraulic elevator or where a cylinder is being replaced. PVC protective casings shall be a minimum of schedule 40 and comply with ASTM D 2667, HDPE casings shall be a minimum of DR 32.5 and comply with ASTM F 714. The bottom of the protective casing shall be sealed with a cap of the same material and schedule, and shall be properly installed, and water removed. The casing and monitoring system shall be installed by a licensed elevator journeyman. The company installing the cylinder and monitoring system shall provide to the owner the specific monitoring procedures and log. A copy of the monitoring procedure and log shall be maintained in the elevator machine room. At any time it is determined the HDPE or PVC protective casing is damaged or leaking, it shall be removed and replaced.

R 408.7043a Cylinders buried in the ground

Rule 43a. Section 3.18.3.8.2 of the ASME A17.1 code is amended to read as follows:

3.18.3.8.2 The methods specified in 3.18.3.8.1 shall be considered acceptable, provided that they meet all the following:

- (a) Are designed and installed with means for monitoring and maintaining them in accordance with recognized industry standards applicable to the methods.
- (b) Are effective for specific conditions where the cylinder is installed.
- (c) Provide means for checking ongoing compliance with 3.18.3.8.1.

R 408.7045 Shutoff valves; gauge snaps; underground piping; tags.

Rule 45. Section 3.19.4.1 of the ASME A17.1 code is amended to read as follows:

3.19.4.1 A shutoff valve shall be provided on a new or modernized hydraulic elevator and shall be installed in the cylinder supply line within the elevator machine room. If the

hoistway is remotely located from the machine room, then a shutoff valve shall also be provided in the elevator pit.

Where the hydraulic machine is located in the hoistway, the manually operated shutoff valve may be located inside the hoistway, provided that it is accessible from outside the hoistway to elevator personnel only.

R 408.7046 Pressure gauge fittings.

Rule 46. Section 3.19.4.5 of the ASME A17.1 code is amended to read as follows:

3.19.4.5 A new hydraulic machine shall be provided with the necessary permanent pressure gauge snap-on fittings or permanent gauges, with a shut off valve to allow pressure readings at each pump for checking operating pressures. The gauge or fitting shall be located on the jack side of the check valve or immediately adjacent to the hydraulic control valve. Where the hydraulic machine is located in the hoistway, the pressure gauge fittings shall only be accessible to elevator personnel from outside the hoistway.

R 408.7047a Car safeties.

Rule 47a. Section 4.3.15 of the ASME A17.1 code is amended to read as follows:

4.3.15 Elevators shall be provided with a car safety, attached to the underside of the car frame, capable of stopping and sustaining the car with rated load.

The car safety device is not required to be operated by a speed governor, and may be of the instantaneous type operated as a result of the breaking or slackening of the suspension members.

Where the rise exceeds 12.5m (40 ft), driving machines having hand-operated brakes shall also be equipped with an automatic speed retarder.

R 408.7048 Buffers and buffer supports.

Rule 48. Section 5.3.1.14.1 of the ASME A17.1 code is amended to read as follows:

5.3.1.14.1 The car and counterweight shall be provided with spring or equivalent type buffers. They shall be designed and installed so that they will not be fully compressed when struck by car with its rated load or by the counterweight traveling at 125% of the rated speed, or at governor tripping speed where a governor-operated safety is used.

R 408.7053 Rescinded.

R 408.7054a Code data plate.

Rule 54a. Section 8.6.1.5.1 of the ASME A17.1 code is amended to read as follows:

8.6.1.5.1 A data plate that indicates the code and edition in effect at the time of installation and any alteration as described in section 8.7.1.8 of the ASME A17.1 code may be provided. The data plate may also specify the code and edition in effect at the time of any alteration and the applicable requirements of section 8.7 of the ASME A17.1 code.

R 408.7054b Listed and certified devices.

Rule 54b. Section 8.6.3.7.2 is amended to the ASME A17.1 code to read as follows:

8.6.3.7.2 Where a listed or certified device or component is replaced, the replacement shall be manufactured to the specifications at the time the device or component was originally certified, engineering tested or type tested in accordance with section 8.3 of the ASME A17-1 code. Upon request, the contractor shall provide the department supporting documentation of compliance with the original specifications. Documents shall be signed and sealed by a licensed professional engineer acting within his or her discipline.

R 408.7056 Firefighters' emergency operation.

Rule 56. Section 8.6.110.1 of the ASME A17.1 code is amended to read as follows:

8.6.11.1 All elevators provided with firefighters' emergency operation shall be subjected quarterly to phase I recall by use of the key switch, and a minimum of 1-floor operation on phase II. Deficiencies shall be corrected. An accessible written record of test results shall be maintained in the machine room.

R 408.7057a Code data plate.

Rule 57a. Section 8.7.1.8 of the ASME A17.1 code is amended to read as follows:

8.7.1.8. A data plate may be provided as required by section 8.6.1.5 of the ASME A17.1 code. In jurisdictions enforcing national building code of Canada, the data plate required by 8.9.1 shall include the code and edition in effect at the time of alteration and the requirements in section 8.7 of the ASME A17.1 code that were applicable to the alteration.

R 408.7058 Rule 58. Section 8.7.3.23.3 of the ASME A17.1 code is amended to read as follows:

8.7.3.23.3 Where a cylinder is installed, replaced, or altered, it shall conform to section 3.18.3 of the ASME A17.1 code. Sleeving of a cylinder shall not be permitted. If the plunger is not equipped with a stop ring conforming to section 3.18.4.1 of the ASME A17.1 code, the installation shall also conform to sections 3.18.1.2 and 3.18.2 of the ASME A17.1 code.

R 408.7058a Escalators; general requirements.

Rule 58a. Section 8.7.6.1.1 of the ASME A17.1 code is amended to read as follows:

8.7.6.1.1 A change in component parts that are interchangeable in form, fit, and function is an alteration and shall comply with the requirements in this section as described in section 8.6.3.1 of the ASME A17.1 code.

The addition of a component or a device that was not part of the original design is an alteration and shall conform to the requirements of section 8.7.6.1 of the ASME A17.1 code for that device or component.

The requirements of section 6.1.3.6.5 of the ASME A17.1 code do not apply to existing escalators that were not required to comply with this requirement at the time of the original installation.

R 408.7058b Moving walks; general requirements.

Rule 58b. Section 8.7.6.2.1 of the ASME A17.1 code is amended to read as follows:

8.7.6.2.1. A change in component parts that are interchangeable in form, fit, and function is an alteration and shall comply with the requirements in this section as described in section 8.6.3.1 of the ASME A17.1 code.

The addition of a component or a device that was not part of the original design is an alteration and shall conform to the requirements of section 8.7.6.2 of the ASME A17.1 code for that device or component.

When multiple driving machines per moving walk are utilized, operating and safety devices required by section 8.7.6.2 of the ASME A17.1 code shall simultaneously control all driving machines.

R 408.7059 Acceptance inspection and tests.

Rule 59. Section 8.10.1.1.1 of the ASME A17.1 code is amended to read as follows:

8.10.1.1.1 The acceptance inspection shall be made by an inspector employed by the authority having jurisdiction. All parts of the installation shall be inspected for conformity with the requirements of the Michigan elevator laws and rules and section 8.10 of the ASME A17.1 code. The American society of mechanical engineers A17.2-2007, guide-for inspection of elevators, escalators, and moving walks, ASME, a copy of which is adopted by reference in R 408.7024, is recommended as a guide in making the inspection. Balance load and maximum normal speeds with maximum rated load and no load shall be determined and recorded on forms furnished by the department.

R 408.7059a Periodic test tags.

Rule 59a. Section 8.11.1.6 of the ASME A17.1 code is amended to read as follows:

8.11.1.6 An approved paper tag with the applicable code requirement or requirements and date or dates performed, and the name of the person or firm performing the test, shall be installed in the machine room or machine space for all periodic tests.

CHAPTER 4. ASME A18.1 MODIFICATIONS

R 408.7062 Runway entrance.

Rule 62. Section 2.1.1.2 of the ASME A18.1 code is amended to read as follows:

2.1.1.2 The runway entrance shall be guarded at the upper landing by a door of unperforated construction not wider than the platform plus 1 inch (25.4 mm). The door shall be self-closing and guard the entire opening to a height equal to or higher than the height of the platform enclosure. The openings created in the runway by these doors shall provide a minimum vertical clearance of 6 feet 8 inches. The doors shall guard the entire area of the openings except for space necessary for operation. Space necessary for operation shall reject a ball 12 mm (0.5 in.) in diameter. The lift side of the landing doors and sill shall present a smooth surface located not closer than 10 mm (0.375 in.) nor more than 20 mm (0.75 in.) from the platform floor.

R 408.7062a Portable and temporary vertical platform lifts.

Rule 62a. Section 2.1.3 of the ASME A18.1 code is amended to read as follows:

2.1.3 Portable and temporary vertical platform lifts may only be installed for temporary use and shall meet all of the following conditions:

(a) The portable or temporary platform lift may only be in place and in use for a maximum of 14 days. The 14 days begin on the date of the approval, which is given at the time of the installation inspection by the elevator safety division. The lift shall be removed from the site on or before the 16th day. In special situations a 1 time renewal may be granted by the department.

(b) The lift shall be attendant-operated in accordance with the requirements of 2.10.2.

(c) A key operated switch shall be provided at the operator station which will allow the up and down control switches to become effective only when the key is in the on position. The key operated switch shall be operated by a lock having 5-pin or 5-disk combination with a key removable only in the off position. Anytime the lift is not being operated, the key switch shall be in the off position and the key shall be removed.

(d) The platform lift shall be positioned to prevent lateral movement during use.

(e) Site specific drawings, which clearly show the location of the lift with regards to the area to be accessed, shall be submitted with the permit application.

R 408.7064 Passenger restriction sign.

Rule 64. Section 2.7.4 of the ASME A18.1 code is amended to read as follows:

2.7.4 A passenger restriction sign shall be provided and placed on each landing door and on the platform. It shall be securely fastened in a conspicuous place. The sign shall state "mobility impaired persons only - no freight" in letters not less than 1/4 inch (6 mm) high and shall include the international symbol for accessibility.

R 408.7065 Passenger restriction sign.

Rule 65. Section 3.7.5 of the ASME A18.1 code is amended to read as follows:

3.7.5 A passenger restriction sign shall be provided and placed on each landing door and on the platform. It shall be securely fastened in a conspicuous place. The sign shall state "mobility impaired persons only - no freight" in letters not less than 1/4 inch (6 mm) high and shall include the international symbol for accessibility.

R 408.7066 Guarding.

Rule 66. Section 5.1.1.2 of the ASME A18.1 code is amended to read as follows:

5.1.1.2 A smooth vertical fascia of unperforated construction shall be provided from the top terminal landing sill and any intermediate landing sill to the level of the bottom terminal landing sill. Openings necessary for operation shall reject a ball 12 mm (0.5 in.) diameter. The fascia shall be equal to or stronger than 1.5 mm (0.0598 in.) sheet steel and guard the full width of the platform. The surface shall not be permanently deformed when a force of 550 N (125 lbf) is applied on any 100 mm (4 in.) by 100 mm (4 in.) area.

R 408.7066a Free passage width and clearances.

Rule 66a. Section 6.1.1 of the ASME A18.1 code is amended to read as follows:

6.1.1 A free width of not less than 500mm (20 in.) shall be provided. If the platform can fold when in use, the distance will be measured for the folded position.

Clearances between the platform and adjacent surfaces shall be not less than 20 mm (0.75 in.). At no point in its travel shall the edge of the platform facing the upper landing be more than 600 mm (24 in.) above a step or landing as measured vertically.

R 408.7067 Runways.

Rule 67 Section 7.1.1 of the ASME A18.1 code is amended to read as follows:

7.1.1 A free passage width of not less than 500 mm (20 in.) shall be provided. If the seat and platform can be folded when not in use, the distance shall be measured from the folded position. The structure on which the equipment is installed shall be capable of safely supporting the loads imposed.

CHAPTER 5. ASME A90-1 MODIFICATIONS

R 408.7069 Applicability of national standard and rules of board.

Rule 69. (1) This rule applies to manlifts, as described in the ASME A90.1-2003, which is adopted by reference in R 408.7003, that are used only to carry plant personnel in granaries, flour mills, parking garages, and similar buildings or occupancies. Belt manlifts shall not be used by the public and, if located in buildings to which the public has access, shall be located in an enclosure that is protected by self-closing, spring-locked doors. Keys to the doors shall be available to employees. The use of belt manlifts during construction is prohibited.

(2) The hoistway enclosure shall comply with the Michigan building code, R 408.30401 to R 408.30547, and shall maintain the fire rating of the structure.

(3) The travel of any single belt manlift installed after February 14, 1968 shall not exceed 100 feet.

CHAPTER 6. ANSI A10.4 MODIFICATIONS

R 408.7070 Rescinded.

R 408.7071 Location.

Rule 71. Section 5.4.8 of the ANSI A10.4 standard is amended to read as follows:

5.4.8 (1) A personnel hoist shall be installed not less than 10-feet from any other lifting or lowering apparatus except other personnel hoists.

(2) A hoistway shall not be located either partially or wholly over sidewalks or passageways.

(3) If tower cranes are installed such that the boom or trolley may go over or into the 10-foot restricted area, then both of the following shall apply:

(a) Limit switches shall be located on both the booms and trolleys of the tower cranes to activate audio and visual alarms and also prevent the boom or trolley from going over or working within 10-feet of the personnel hoist while the hoist is occupied.

(b) Key override switches shall be installed to allow the boom and trolley to go into the 10-foot restricted area when moving material, or at any time the boom or trolley passes over the restricted area. The personnel hoist shall be unoccupied at this time. The evacuation of the personnel hoist is the responsibility of the crane operator and the general contractor.

R 408.7073 Rescinded.

R 408.7080 Operation.

Rule 80. Section 30 of the ANSI A10.4 standard is amended to read as follows:

30 Hoists shall be operated in compliance with the manufacturing specifications, rules and recommendations, and with the governing authority. This shall consist of items, functions, and criteria pertaining to the hoist use and shall be a part of an operational maintenance and inspection log. Either of the following signal systems shall be provided:

(a) An approved signal device to enable persons on each landing to signal the operator to stop and an emergency bell to signal the operator to return to the bottom landing.

(b) An approved type voice communication system between the car and landings and the project manager or job site superintendent's office.

R 408.7081 Authorized uses.

Rule 81. Section 30.1 of the ANSI A10.4 standard is amended to read as follows:

30.1 (1) Only workers and other authorized personnel associated with the work being done may ride on a personnel hoist.

(2) A personnel hoist may be used for carrying materials if it is designed and installed for the type of load to be used and if no passengers are carried during the time materials are being carried except those necessary to handle the materials.

(3) The load on a personnel hoist shall not exceed the maximum rated load established by the department.

(4) Hoists shall be operated by competent, qualified, and authorized personnel using manual operating devices of the continuous pressure type located inside the hoist car only.

R 408.7081a Operators.

Rule 81a. Section 30.3 of the ANSI A10.4 standard is amended to read as follows:

30.3 The user shall ensure that the operators are knowledgeable and capable of performing the duties outlined in the operating manual and are capable of recording such activity in their log.

CHAPTER 7. SEWER LIFT STATION PERSONNEL ELEVATORS

R 408.7092 Frames, enclosures, platforms, capacity, and final limits.

Rule 92. (1) A car frame and platform shall be of metal. Frame members shall be securely bolted and braced. The factor of safety shall not be less than 4 with a uniformly distributed rated load.

(2) The car shall be enclosed to the extent necessary to afford reasonable protection.

(3) The platform area shall not exceed 5 square feet.

(4) The rated capacity shall be not less than 300 pounds.

(5) The limit of travel for the elevator shall be not more than 50 feet.