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**Rules of**  
**Department of Public Safety**  
**Division 40—Division of Fire Safety**  
**Chapter 5—Elevators**

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**Title 11—DEPARTMENT OF  
PUBLIC SAFETY  
Division 40—Division of Fire Safety  
Chapter 5—Elevators**

**11 CSR 40-5.010 Purpose**

*PURPOSE: This rule is to establish the purpose for the section's rules 11 CSR 40-5.020 through 11 CSR 40-5.150, which relate to 701.350 through 701.380, RSMo.*

- (1) The purpose of this rule is to establish—
- (A) Minimum safety standards for the maintenance, inspection, tests, and operation of all elevator equipment;
  - (B) Minimum safety standards for the construction of new elevator equipment;
  - (C) Minimum safety standards for the alteration of existing elevator equipment;
  - (D) Minimum safety standards for existing elevator equipment;
  - (E) Rules and regulations prescribing registration and permitting of all elevator equipment;
  - (F) Rules and regulations prescribing fees;
  - (G) Rules and regulations for the application and granting of variances and exceptions;
  - (H) Minimum standards for registering, certifying and qualifying elevator inspectors; and
  - (I) Rules and regulations for the effective administration and enforcement of sections 701.350–701.380, RSMo.

(2) These rules and regulations are intended to protect the general public, invitees, guests, employees, and all persons who could reasonably be expected to use elevator equipment.

*AUTHORITY: section 701.355, RSMo 1994. \* Original rule filed Aug. 26, 1998, effective July 1, 1999.*

*\*Original authority 1994.*

**11 CSR 40-5.020 Scope and Application**

*PURPOSE: The purpose of this rule is to specifically identify the scope of elevator construction, maintenance, and inspection.*

- (1) These rules and regulations apply to all elevator equipment in the state of Missouri except as specifically exempted herein.
- (2) These rules and regulations do not apply to—
- (A) A conveyor, chain or bucket hoist, construction hoist or similar devices used for primary purpose of elevating or lowering

materials and is not used for elevating or lowering workers or other riders, including those workers loading and unloading such devices;

(B) Tiering, piling, feeding, or similar machines or devices giving service within only one (1) story; or

(C) Elevator equipment installed in a single-family residence or those installed completely within a single unit of a multi-family residence. These regulations do apply to elevator equipment installed in the common areas of multi-family residences.

*AUTHORITY: section 701.355, RSMo 1994. \* Original rule filed Aug. 26, 1998, effective July 1, 1999.*

*\*Original authority 1994.*

**11 CSR 40-5.030 Definitions**

*PURPOSE: This rule is to define terms common to elevator and other objects that fall under sections 701.350–701.380, RSMo.*

(1) As used in these rules and regulations the following terms mean:

(A) Alteration—Any change or addition to any elevator equipment other than ordinary repairs and replacements;

(B) Automatic transfer device—A mechanism which automatically moves a load consisting of a cart, tote box, pallet, wheeled vehicle, box or similar object to and from the platform of the lift but does not carry personnel;

(C) Authorized representative—The department within cities, towns, and other governmental subdivisions designated by the Elevator Safety Board to enforce certain provisions of sections 701.350–701.380, RSMo;

(D) Board—The Elevator Safety Board appointed as provided in sections 701.350–701.380, RSMo;

(E) Department—The Department of Public Safety;

(F) Dumbwaiter—A hoisting and lowering mechanism with a car of limited capacity and size which moves in guides in a substantially vertical direction, and is used exclusively for carrying material;

(G) Elevator equipment—Any equipment regulated by these rules and regulations as described in 11 CSR 40-5.020 defined in 11 CSR 40-5.030 as listed herein;

(H) Elevator—A hoisting and lowering mechanism designed to carry passengers or authorized personnel and equipped with a car which moves in fixed guides and serves two (2) or more fixed landings;

(I) Escalator—A power-driven inclined continuous stairway used for the raising and lowering of passengers;

(J) Existing installation—An installation for which prior to the effective date of these rules and regulations—

1. All work to install the installation was completed; or

2. The plans and specifications were filed with the permitting authority and work begun no later than twelve (12) months after the date of the permit;

(K) Freight elevator—An elevator used primarily for carrying freight and on which only the operator and persons necessary for unloading and loading the freight are permitted to ride;

(L) Installation—An automatic transfer device, dumbwaiter, elevator, escalator, manlift, material lift, moving walk and stairway inclined lift, including its hoistway, hoistway enclosure and related construction, and all machinery and equipment;

(M) Licensed inspector—Any inspector in the employ of the department, in the employ of any authorized representative, or any special inspector certified and licensed by the board in accordance with 11 CSR 40-5.120 as listed herein;

(N) Major alteration—Refer to definition of alteration;

(O) Manlift—A device consisting of a power-driven endless belt moving in one direction only and provided with steps and platforms and handholds attached to it for the transportation of personnel from floor to floor which is not accessible to or used by the general public;

(P) Material lift—A hoisting and lowering mechanism normally classified as an elevator which has been modified to adapt it for automatic movement of material by means of an integrally mounted automatic transfer device;

(Q) Moving walk—A type of passenger-carrying device in or on which passengers stand, sit, or walk and in which the movement of the passenger-carrying device is uninterrupted and remains parallel to its direction of motion;

(R) New installation—Any installation not classified as an existing installation, or any existing installation, moved to a new location subsequent to the effective date of these rules;

(S) Personnel hoist—A mechanism and its hoistway for use in connection with the construction, alteration, maintenance, or demolition of a building, structure, or other work. It is used for hoisting and lowering workers or materials, or both, and is equipped with a car that moves on guide members during its vertical movement;

(T) Special inspector—An inspector certified by the board, but not employed by the Department of Public Safety or by a municipality or political subdivision;

(U) Special purpose personnel elevator—An elevator installed in a structure and location to provide vertical transportation of authorized personnel, their tools and equipment only. Such an elevator is typically installed in structures such as grain elevators, radio antennae and bridge towers, underground facilities, dams, power plants, construction job sites and similar structures, where by reason of their limited use and types of construction served, full compliance with the applicable standards is not practical nor necessary; and

(V) Stairway inclined lift—A power passenger lift installed on an incline for raising and lowering persons from one floor to another.

*AUTHORITY:* section 701.355, RSMo 1994.\* Original rule filed Aug. 26, 1998, effective July 1, 1999.

\*Original authority 1994.

#### 11 CSR 40-5.040 Registration

*PURPOSE:* This rule is to provide a twelve-month extension to register elevators, after the adoption of the rules.

(1) Within twelve (12) months after adoption of these rules and regulations under this section relating to registration of an existing installation and thereafter by July 1 of each year, the owner, operator, lessee or agent of either, shall register each installation, whether or not dormant with the Department of Public Safety, giving type, contract load and speed, name of manufacturer, its location and the purpose for which it is used, and such additional information as the department may require. Registration must be made on a form to be furnished by the department, upon request. Existing or new installations, the construction of which are commenced subsequent to the date of promulgation of these rules, must be registered in the manner prescribed by the department.

(2) Any owner, operator, lessee or agent of either who fails to register an existing installation as required by 11 CSR 40-5.040 may be assessed a penalty as prescribed in 11 CSR 40-5.110 as listed herein.

*AUTHORITY:* section 701.355, RSMo 1994.\* Original rule filed Aug. 26, 1998, effective July 1, 1999.

\*Original authority 1994.

#### 11 CSR 40-5.050 New Installations

*PURPOSE:* This rule is to provide the standards for new installations.

*PUBLISHER'S NOTE:* The publication of the full text of the material that the adopting agency has incorporated by reference in this rule would be unduly cumbersome or expensive. Therefore, the full text of the material will be made available to any interested person at both the Office of the Secretary of State and the office of the adopting agency, pursuant to section 536.031.4, RSMo. Such material will be provided at the cost established by state law.

(1) Minimum Standards. All new elevator equipment installed on or after the effective date of these rules and regulations shall be constructed and installed in conformity with the standards prescribed in the American Society of Mechanical Engineers, ASME A17.1, *Safety Code for Elevators and Escalators*, American National Standard Safety Code for Manlifts ANSI A90.1, *American National Safety Code for Personnel Hoist* ANSI A10.4 latest version adopted and amended by the Elevator Safety Board, unless as exempted by section 701.359, RSMo. These standards are hereby adopted by reference and incorporated herein.

(2) Installation Permit.

(A) Prior to the installation or construction of any elevator equipment, an elevator equipment permit shall be obtained from the department or its authorized representative.

(B) Elevator Installation Permit Obtained from the Department.

1. Application for an elevator equipment permit shall be made on a form furnished by the department and shall be submitted by the installing contractor, or in the absence of an installing contractor, the owner, operator, lessee or agent of either. The application shall require the submission of detailed plans and specifications.

2. Upon receipt of an application for installation of elevator equipment, the required plans and specifications, and the required fee for an elevator equipment permit, the department shall review the application for compliance with the provisions of these rules and regulations. The department shall issue an elevator equipment permit or shall notify the applicant, in writing, of the reasons the elevator equipment permit is denied.

3. Any applicant who has been denied an elevator equipment permit by the department may appeal that denial to the Elevator

Safety Board, as provided in 11 CSR 40-50.140 as listed herein.

(C) Elevator installation permit obtained from authorized representative. Procedures for new installation permits shall be defined by the authorized representative.

(3) Inspection and Testing.

(A) Prior to the operation of any new elevator equipment or the issuance of the operating certificate, such elevator equipment shall be inspected by a licensed inspector. Testing must be performed in accordance with these rules and regulations. The testing must be witnessed by a licensed inspector.

(B) An inspection report shall be filed with the department or its authorized representative, installing contractor and the owner, operator, lessee or agent of either, by the licensed inspector making the inspection within ten (10) days after completion of the inspection. The inspection report shall be on a form furnished and approved by the department or its authorized representative. It shall indicate whether the elevator equipment was installed in accordance with the plans and specifications approved by the department or its authorized representative and meets the requirements of these rules and regulations.

(4) Operating Certificate for New Installations. Prior to operating, a new installation operating certificate must be obtained in accordance with 11 CSR 40-5.100 as listed herein.

*AUTHORITY:* section 701.355, RSMo 1994.\* Original rule filed Aug. 26, 1998, effective July 1, 1999.

\*Original authority 1994.

#### 11 CSR 40-5.055 Code Additions, Amendments and Interpretations

*PURPOSE:* This rule is to reference the interpretations and amendments to the ASME Elevator and Escalator Codes specified in sections 701.350–701.380, RSMo.

*PUBLISHER'S NOTE:* The publication of the full text of the material that the adopting agency has incorporated by reference in this rule would be unduly cumbersome or expensive. Therefore, the full text of the material will be made available to any interested person at both the Office of the Secretary of State and the office of the adopting agency, pursuant to section 536.031.4, RSMo. Such material will be provided at the cost established by state law.

(1) The definitions, rules and regulations for new construction shall be based upon and, at all times, follow the generally accepted nationwide engineering standards, formulae and practices established and pertaining to elevator equipment construction and safety, known as the “Elevator and Escalator Safety Code of the American Society of Mechanical Engineers,” with all amendments and interpretations thereto made and approved by the council of the society, which is incorporated by reference in this rule. Any amendments and interpretations subsequently made and published by the same authority when so adopted shall be deemed incorporated into, and constitute a part of the whole of the definitions, rules and regulations of the board. Amendments and interpretations to the code shall be effective immediately upon being promulgated, to the end that the definitions, rules and regulations shall at all times follow the generally accepted nationwide engineering standards.

(2) The rules and regulations and any subsequent amendments thereto, pertaining to the construction of new elevator equipment shall not be mandatory until twelve (12) months after the effective date of the rules and regulations.

*AUTHORITY: section 701.355, RSMo 1994.\* Original rule filed Aug. 26, 1998, effective July 1, 1999.*

*\*Original authority 1994.*

### 11 CSR 40-5.060 Existing Elevators

*PURPOSE: This rule is to provide minimum standards for elevators installed prior to the adoption of this rule.*

*PUBLISHER’S NOTE: The publication of the full text of the material that the adopting agency has incorporated by reference in this rule would be unduly cumbersome or expensive. Therefore, the full text of the material will be made available to any interested person at both the Office of the Secretary of State and the office of the adopting agency, pursuant to section 536.031.4, RSMo. Such material will be provided at the cost established by state law.*

(1) Minimum Standards. All existing elevator equipment installed prior to the effective date of these rules and regulations shall conform to the Missouri Minimum Safety Codes for Existing Elevator Equipment as promulgated by the Elevator Safety Board in 11 CSR 40-

5.065. These standards are hereby adopted and incorporated by reference.

(2) Time Period to Comply. The owner, operator, lessee or agent of either, of any existing elevator equipment, subject to this section shall have one (1) year from the effective date of these rules and regulations, or when notice is given to comply; or within one (1) year the owner, operator, lessee, or agent of either, of any existing elevator equipment, subject to this section shall submit a plan to the board, for approval, outlining the dates to which the requirements of this section will be complied with.

(3) Operating Certificate for Existing Elevator Equipment. Any elevator equipment installed and in existence prior to the effective date of these rules and regulations shall conform to the standards established by 11 CSR 40-5.090. In addition, the owner, operator, lessee, or agent of either shall obtain an operating certificate in accordance with 11 CSR 40-5.100 as listed herein.

(4) Alteration Permit, Inspection and Operating Certificate. The owner, operator, lessee or agent of either, of any elevator equipment which must be altered in order to comply with the Missouri Minimum Safety Codes for Existing Elevator Equipment shall obtain an alteration permit, an inspection, and an operating certificate in the same manner as provided in 11 CSR 40-5.080 and 11 CSR 40-5.110.

*AUTHORITY: section 701.355, RSMo 1994.\* Original rule filed Aug. 26, 1998, effective July 1, 1999.*

*\*Original authority 1994.*

### 11 CSR 40-5.065 Missouri Minimum Safety Codes for Existing Elevator Equipment

*PURPOSE: The purpose of this rule is to take exceptions to the referenced Codes or provide alternatives. It has been noted that some areas of the referenced Codes are too restrictive or may not be feasible to implement, or may be unreasonable for certain types of installations.*

*PUBLISHER’S NOTE: The publication of the full text of the material that the adopting agency has incorporated by reference in this rule would be unduly cumbersome or expensive. Therefore, the full text of the material will be made available to any interested person at both the Office of the Secretary of State and the office of the adopting agency, pur-*

*suant to section 536.031.4, RSMo. Such material will be provided at the cost established by state law.*

(1) The following standards apply to all existing elevator equipment installed prior to the effective date of these rules and regulations as provided in 11 CSR 40-5.060. Any installation which is in compliance with the latest ASME A17.1 version adopted and amended by the Elevator Safety Board, unless as exempted by 701.359, RSMo shall be considered to be in compliance with 11 CSR 40-5.065. The foregoing standards are incorporated by reference in this rule.

#### (A) Hoistways.

1. Each passenger elevator hoistway landing shall be protected with a door or gate. The door or gate shall be of solid construction and shall guard the entire entrance.

2. All automatic passenger elevators with power doors shall have non-vision panels on hoistway doors.

3. Each hoistway landing in any elevator hoistway shall be continuously provided with a properly working door or gate.

4. Where freight elevator hoistway doors or gates are of open or lattice construction they shall be at least six (6') feet high and shall come within two inches (2") of the floor when closed. Gates shall be constructed as to reject a ball two inches (2") in diameter. They shall withstand a force of two hundred fifty (250) pounds pressure applied in the center of the gate without breaking or forcing it out of its guides.

5. Manually operated bi-parting entrances of elevators which can be operated from the landings shall be provided with pull straps on the inside and outside of the upper panel where the lower edge of the upper panel is more than six feet six inches (6'6") above the landing when the panel is in the fully opened position.

6. All freight elevators having wooden hoistway gates in an area where power loading equipment, such as fork trucks, electric mules, etc. are used shall have an acceptable means to restrain the power equipment from running through such wooden gates.

7. Each hoistway door or gate shall be provided with interlocks designed to prevent the car from moving unless the doors or gates are closed. Where doors or gates do not lock when closed they shall lock when the elevator is not more than twelve inches (12") away from the floor. Passenger elevator hoistway doors shall be closed and locked before the car leaves the floor.

8. All hoistway-door interlocks shall be of the hoistway unit type.

9. Automatic fire doors shall not lock any landing opening in the hoistway enclosure from the hoistway side nor lock any exit leading from any hoistway landing to the outside of the building.

10. Emergency keys for hoistway doors and service keys shall be kept readily accessible to authorized persons.

11. Access means shall be provided at one upper landing to permit access to the top of the car, and at the lowest landing if this landing is the normal point of access to the pit.

12. Each hoistway door or gate, which is counterweighted, shall have its weights enclosed in a box-type guide or run in metal guides. The bottom of the guides or boxes shall be so constructed as to retain the counterweight if the counterweight suspension means breaks.

13. Hoistways containing freight elevators shall be fully enclosed. Enclosures shall be unperforated to a height of six (6') feet above each floor or landing and above the treads of adjacent stairways. Unperforated enclosures shall be so supported and braced as to deflect not over one inch (1") when subjected to a force of one hundred (100) pounds applied horizontally to any point. Open work enclosure may be used above the six-foot (6') level and shall reject a ball two inches (2") in diameter.

14. Hoistways containing passenger elevators shall be fully enclosed and the enclosure shall be of solid construction to its full height.

15. Except where vertical opening bi-parting doors are provided, all elevators provided with automatic leveling, inching or teasing devices and where the landing sills project within the hoistway, shall be equipped with a bevel on the underside of the landing sill. Bevels shall be constructed of smooth concrete or of not less than sixteen (16) gauge metal securely fastened to the hoistway entrance. Bevels shall extend the full depth of the leveling zone plus three inches (3").

16. Every hoistway window opening seven (7) stories or less on an outside wall above a thoroughfare and every such window three (3) stories or less above a roof of the building or of an adjacent building shall be guarded to prevent entrance by fire or emergency rescue persons. Each such window shall be marked "hoistway" in a readily visible manner.

(B) Car Enclosure: Passenger.

1. Each passenger car shall be fully enclosed except on the sides used for entrance and exit. The enclosure shall be of solid construction. Grill work at the top of the sides shall not be more than eight inches (8") high.

If the car is provided with a solid door and there is no grill work in the enclosure, adequate means of ventilation shall be provided.

2. Each passenger car enclosure shall have a top constructed of solid material. The top shall be capable of sustaining a load of three hundred (300) pounds on any area of two (2') feet on a side and one hundred (100) pounds applied at any point. Simultaneous application of these loads is not required.

3. Passenger car enclosure tops shall have an emergency exit with cover. Opening size shall be as set forth in ASME A17.1, rule 204.1E. Exception: Hydraulic elevators provided with a manual lowering valve.

4. Each passenger car shall have a door or gate at each entrance. Doors or gates shall be of the horizontally sliding type. Doors shall be of solid construction. Gates shall be of the collapsible type. Gates and doors shall conform to ASME A17.1, rule 204.4.

5. Each passenger car door or gate shall have an electric contact to prevent the car from running with doors or gates open. Exceptions:

A. By a car-leveling or truck-zoning device;

B. By a combination hoistway access switch and operating device; or

C. When a hoistway access switch is operated.

6. All automatic passenger elevators with power doors shall have reopening devices on the doors, designed to reopen doors in the event the doors should become obstructed.

7. Where a car door or gate of an automatic or continuous-pressure operation passenger elevator is closed by power, or is of the automatically released self-closing type, and faces a manually operated or self-closing hoistway door, the closing of the car door or gate shall not be initiated unless the hoistway door is in the closed position; and the closing mechanism shall be so designed that the force necessary to prevent closing of a horizontally sliding car door or gate from rest shall be not more than thirty (30) pounds. Exception: Where a car door or gate is closed by power through continuous pressure of a door-closing switch, or of the car operating device, and where the release of the closing switch or operating device will cause the car door or gate to stop or to stop and reopen.

8. Each passenger car shall have lighting inside the enclosure of not less than five (5) foot-candles. Bulbs and tubes shall be guarded to prevent breakage.

9. Each passenger elevator shall have a capacity plate prominently displayed in its enclosure. The capacity plate shall list its capacity in pounds.

10. All passenger elevator car floors shall be maintained so that persons are not exposed to the hazards of tripping or falling.

11. All automatic passenger elevators shall be provided with an alarm bell capable of being activated from inside the car and audible outside the hoistway. If the elevator is not equipped with a bell, a two (2)-way conversation device to the elevator and a ready accessible point outside the hoistway may be acceptable.

12. All automatic passenger elevators shall have their door open zones adjusted to where the door shall not open unless the car has stopped within six inches (6") of floor level.

(C) Car Enclosure: Freight.

1. Each freight elevator car shall have a solid enclosure of at least sixty-six inches (66") in height. The space between the solid section and the car top shall be covered solid or with perforated or lattice-type work. The perforated or lattice work shall reject a ball one and one-half (1 1/2) inches in diameter. The portion of open-type enclosure, which passes the counterweights, shall be of solid construction the entire width of the counterweights plus six inches (6") on either side. The enclosure top shall be provided with an emergency exit. Exception: Hydraulic elevators provided with a manual-lowering valve.

2. Each freight car enclosure shall have doors or gates at each entrance and shall be not less than six feet (6') high. Each door or gate shall be constructed in accordance with ASME A17.1, rule 204.4.

3. Each car door or gate on a freight elevator shall have electric contacts to prevent the car from running with doors or gates open. Exceptions:

A. By a car-leveling or truck-zoning device;

B. By a combination hoistway access switch and operating device; or

C. When a hoistway access switch is operated.

4. Each freight elevator car enclosure shall be provided with a top. The top may be solid or open-work construction and shall be of metal. The open work shall reject a ball two inches (2") in diameter. Car tops shall be constructed to sustain a load of two hundred (200) pounds applied at any point on the car top. The top shall not have hinged or folding panels other than the emergency exit cover.

5. Each freight car enclosure shall have lighting not less than two and one-half (2 1/2) foot-candles. Bulbs or tubes shall be guarded to prevent breakage.

6. Each freight car enclosure shall have capacity plate, loading class plates, and a

“No Passengers” sign conspicuously posted. Letters shall not be less than one-half inch (1/2") high.

7. Freight elevators shall not be loaded to exceed the rated load as stated on their capacity plates.

8. Each freight elevator car floor shall be maintained so that personnel will not readily slip or trip. The floor shall be maintained so that it will hold its rated load without breaking through at any place in the car.

9. Freight elevators shall not be permitted to carry passengers other than persons to load and unload material and the operator. Permission may be granted to allow the carrying of employees on freight elevators. Application shall be submitted and may be approved by the authorized representative after which the installation shall be tested as determined by the Department of Public Safety.

(D) Brakes.

1. Each electric elevator shall be provided with an electric brake.

2. Each brake shall be of the friction type applied by a spring or springs or gravity and released electrically. The brake shall be capable of holding the car at rest with its rated load.

(E) Machines.

1. Friction gearing or clutch mechanisms shall not be used for connecting the drum or sheaves to the main driving mechanism.

2. Set screw fastenings shall not be used on power elevators in lieu of keys or pins on connections subject to torque or tension.

3. Portable power-chain or cable hoist machines shall not be used to raise or lower an elevator car.

4. No belt or chain driven power machine shall be used for any elevator unless the machine is provided with a broken belt or broken chain safety switch of the electrical non-automatic reset type. Exception: Hydraulic machines.

(F) Electrical Switches.

1. All electric elevators shall have a labeled emergency stop switch. The switch shall be located on or adjacent to the operating panel.

2. All electric elevators shall have upper and lower final limit switches. Open-type switches shall not be accepted. Drum-type machines shall have final limit switches mounted on the machine and hoistway final limit switches.

3. All operating devices of car switch operations shall automatically return to the stop position and latch there when released.

4. Tiller-cable operations shall not be used unless all direction switches on con-

trollers are mechanically operated. Contacts on direction switches shall be broken when the cable is at the centered position.

5. No elevator shall be provided with a switch or device which makes more than one (1) door or gate switch inoperative at any one time. Exception: Fire fighter service switches.

6. No person at any time shall make any required safety device or electrical protective device inoperative, except where necessary during tests, inspections or maintenance. Such devices shall be restored to their normal operating conditions as soon as all tests, inspections and maintenance has been completed. The facility shall not be left unattended while any of these devices are inoperative.

7. Each winding drum machine shall be provided with an electrical switch which shall disconnect power to the hoisting motor and brake when cables are slackened.

8. Any persons entering an elevator pit for any reason shall have the power to the elevator removed at the main line disconnect switch. The disconnect switch shall be red tagged to prevent the power from being placed back on the elevator controls. Exception: Elevators provided with a pit stop switch.

9. A fused disconnect means for all elevators shall be provided. Disconnect switch shall be located in the machine room and be readily accessible from the machine.

(G) Maintenance, Repair and Alterations.

1. All maintenance shall comply with ASME A17.1, section 1002.

2. All repairs and alterations shall comply with ASME A17.1, section 1200.

(H) Machine Rooms.

1. All means of access to elevator machine rooms shall be of a permanent nature and shall be constructed and maintained in a clear and unobstructed manner.

2. The elevator machine and control equipment shall be located in a separate room or separated from other equipment by a substantial grill of not less than six feet (6') high. The grill shall be of a design that will reject a ball two (2") inches in diameter. All rooms or enclosures shall have a self-closing and self-locking door.

3. All elevator machine rooms shall be provided with a floor. The floor shall cover the entire area of the machine room and hoistway.

4. Machine room floors shall be kept clean and free of grease and oil. Articles or materials not necessary for the maintenance or operation of the elevator shall not be stored therein. Flammable liquids having a flash point of less than one hundred ten degrees

Fahrenheit (110°F) shall not be stored in the machine room.

5. Lighting in the machine room shall be not less than ten (10) foot-candles at floor level.

6. Where there is more than one machine in a room, each machine shall have a different number conspicuously marked on it. The controller, disconnect switch and relay panels for each machine shall be conspicuously numbered to correspond to the machine it controls.

7. All electrical equipment in the machine room shall be grounded which shall conform to ASME A17.1 and NFPA 70 (NEC).

8. All electrical wiring in the machine room and hoistway shall be enclosed in metal conduit, flexible conduit or metal raceways.

9. Each elevator having polyphase alternating current power supply shall be provided with means to prevent the starting of the elevator motor if:

A. The phase rotation is in the wrong direction; or

B. There is a failure of any phase.

This protection shall be considered provided in the case generator-field control having alternating current motor-generator driving motors, provided a reversal of phase will not cause the elevator driving-machine motor to operate in the wrong direction. Controllers whose switches are operated by polyphase torque motors provide inherent protection against phase reversal or failure.

(I) Pits.

1. All pits shall be kept clean and free of equipment or material not relating to the operation of the elevator. Exception: Sump pumps.

2. Buffers (spring or oil type) under cars and counterweights shall be permanently fastened to the floor or their supporting beams.

3. All elevators shall have counterweight guards. Guards shall be of unperforated metal of at least the strength of or braced to the equivalent strength of number fourteen (14) gauge sheet steel. Guards shall extend from a point not more than twelve inches (12") above the pit floor to a point not less than seven feet (7') above the pit floor. Where guards are not feasible, warning chains shall be installed on the bottom of the counterweights and shall extend no less than five feet (5') below counterweight. Chains shall be of a number ten (10) U.S. gauge wire or of equal size. Exception: When compensating chains or ropes are used, a counterweight guard is not required.



4. Buffers shall be installed where elevator pits are not provided with buffers and where the pit depth will permit. Buffers shall comply with ASME A17.1, section 201.

5. Where the depth of any pit is in excess of four feet (4') it shall have a ladder permanently installed. The ladder shall extend not less than thirty inches (30") above the sill of the access door, or hand grips shall be provided to the same height. Ladder shall be of noncombustible material.

(J) Counterweights.

1. Broken or cracked sections of counterweights shall be replaced.

2. Counterweight hanger rods, tie rods or both shall firmly support and secure the counterweight sections in place.

3. Wire ropes extending through counterweights from one stack to another shall be guarded by metal sleeves attached to the wire ropes. Guards shall be of a suitable design to prevent accidental crushing or deforming for the ropes and rope sockets. Stacks shall not be spaced less than eight inches (8") apart.

(K) Car Platforms and Car Slings.

1. All platforms shall be soundly constructed without cracks or breaks in stringers or frames. All floors shall be free of holes.

2. All car slings shall be soundly constructed and free of cracks or breaks.

3. Where cable sheaves are used on the crosshead, they shall be firmly attached and free of cracks or breaks.

4. All elevators shall have data plates attached to the crosshead.

5. All elevators with automatic leveling, inching or teasing devices shall have a platform guard or an apron. All other elevators shall have warning chains hung within two inches (2") of the edge of the platform on the entrance sides. Chains shall be of number ten (10) U.S. gauge wire or of equal size. Chains shall extend not less than five feet (5') below the platform and shall not be spaced more than four inches (4") apart.

6. All car slings shall have guide shoes at the top and bottom of the sling. Shoes that are worn to a degree which affect the safe operation of the car shall be repaired or replaced.

(L) Wire Ropes-Hoisting, Governor and Tiller.

1. All hoisting and governor ropes, when replaced, shall have rope tags. The tags shall provide the following information:

- A. The diameter in inches;
- B. The manufacturer's rated breaking strength;
- C. The grade of material used;
- D. The month and year ropes were installed;

E. Whether preformed or non-preformed;

F. Construction classification;

G. Name of person or firm who installed ropes;

H. Name of manufacturer of ropes.

2. Wire ropes on drum-type machines shall be resocketed in compliance with ASME A17.1, rule 1002.3.

3. Suspension ropes on drum-type machines shall have not less than one (1) turn of the rope on the drum when the car is resting on the fully compressed buffers.

4. Winding drum machines shall not be used unless they are provided with not less than two (2) hoisting ropes. Each counterweight stack shall be provided with not less than two (2) ropes.

5. Tiller cables on cable-operated elevators shall be kept free of breaks.

6. On tiller-cable operations, the cable shall pass through a guiding or stopping device mounted on the car. The cable shall be provided with adjustable stop balls and be provided with means to lock and hold the car at a floor. Stop balls at top and bottom shall be adjusted to automatically stop the car. The tiller cable shall be completely enclosed in the hoistway.

7. All hoisting or counterweight ropes located outside of the hoistway that are exposed shall be covered with a box-type guard. The guard shall be not less than six feet (6') high from floor level.

8. Hoisting, governor and tiller ropes shall not be lengthened or repaired by splicing.

9. Suspension means of chains other than a roller chain type shall not be allowed. Any elevator suspended by a roller chain type shall not be used for the carrying of passengers. Exception: Elevators for the disabled.

10. Hoisting ropes for power elevators shall not be less than three-eighths inch (3/8") in diameter.

11. Hoisting rope fastening means shall be of the socket, babbitting or wedge type. Clamps shall not be used.

12. Rope (cable) replacement. Hoisting, governor and tiller ropes shall be replaced when the American National Standards Practice for the Inspection of Elevators, Escalators and Moving Walks, ASME A17.2 Inspectors' Manual, Division 103, Item 103.4 dictates they shall be changed.

(M) Car Safeties and Speed Governors.

1. Each elevator suspended by ropes shall be provided with mechanically applied car safeties which shall be capable of stopping and sustaining its rated load.

2. Broken rope or slack rope safeties may be allowed if the car speed is not in excess of fifty feet per minute (50 fpm).

3. Elevators which are provided solely with broken rope or slack rope safeties shall not be used for passenger service. Exception: Elevators for the disabled.

4. All safeties shall be adjusted so that clearances from the rail shall be in accordance with ASME A17.1, rule 1001.2.

5. All slack cable safeties shall be provided with an electrical switch which disconnects power to the elevator machine and brake when setting of the safeties occurs.

6. All safeties operated by a speed governor shall be provided with a speed switch operated by the governor when used with type B or C car safeties on elevators having a rated speed exceeding one hundred fifty (150) fpm. A switch shall be provided on the speed governor when used with a counterweight safety for any car speed.

7. Speed governors shall have their means of speed adjustment sealed.

8. For hoistways not extending to the lowest floor and where space below the hoistway is used for a passageway or is occupied by persons, or if unoccupied but not secured against unauthorized access, the counterweights of the elevator shall be provided with safeties. Safeties shall be tripped by a speed governor if the car speed is in excess of one hundred fifty (150) fpm. Speed governors shall be set to trip above the car governor tripping speed but not more than ten percent (10%) greater.

(N) Guide Rails.

1. All guide rails and brackets whether of wood or steel shall be firmly and securely anchored or bolted in place. Where T rail is used all fish-plate bolts shall be tight. This shall comply with ASME A17.1, section 200.

2. Where guide rails which are worn to such a point that proper clearance of safety jaws cannot be maintained, the worn sections shall be replaced to achieve clearances as specified in ASME A17.1, rule 1001.2.

(O) Existing Hydraulic Elevators.

1. Cylinders of hydraulic-elevator machines shall be provided with a means for releasing air or other gas.

2. Each pump or group of pumps shall be equipped with a relief valve conforming to the following requirements:

- A. Type and location. The relief valve shall be located between the pump and the check valve and shall be of such a type and so installed in the bypass connection that the valve cannot be shut off from the hydraulic system;

B. Setting. The relief valve shall be preset to open at a pressure not greater than that necessary to maintain one hundred and twenty-five percent (125%) of working pressure;

C. Size. The size of the relief valve and bypass shall be sufficient to pass the maximum rated capacity of the pump without raising the pressure more than twenty percent (20%) above that at which the valve opens. Two (2) or more relief valves may be used to obtain the required capacity; and

D. Sealing. Relief valves having exposed pressure adjustments if used, shall have their means of adjustment sealed after being set to the correct pressure. Exception: No relief valve is required for centrifugal pumps driven by induction motors, provided the shut-off, or maximum pressure which the pump can develop, is not greater than one hundred and thirty-five percent (135%) of the working pressure at the pump.

3. Storage and discharge tanks shall be covered and suitably vented to the atmosphere.

4. Hydraulic elevators shall be governed by the rules contained in ASME A17.1, Part III.

5. All repair and alterations of hydraulic elevators shall comply with ASME A17.1, section 1201 with supplements thereto.

(P) Existing Sidewalk Elevators.

1. Hoistways shall be permanently enclosed. The enclosures shall conform to ASME A17.1, rule 401.1.

2. All interior landings shall have a door or gate which shall be provided with an interlock.

3. Doors opening in sidewalks or other areas exterior to the building shall be of the hinged type. Doors or covers shall be designed to hold a static load of three hundred pounds per square foot (300 ppsf). Doors shall always be closed unless elevator is at the landing.

4. Stops shall be provided to prevent the cover in the opening of the sidewalk from opening more than ninety degrees (90°) from its closed position.

5. Covers in sidewalk shall be designed to close when the car descends from the top landing.

6. Recesses or guides which will securely hold the cover in place on the car stanchions shall be provided on the under side of the cover.

7. All electrical wiring shall be enclosed in metal conduit, flexible conduit or metal raceways. If hoistway opens in the sidewalk, the wiring shall be weatherproof.

8. Operating devices and control equipment shall comply with ASME A17.1, rule 402.4.

9. All electric sidewalk elevators shall have upper and lower final limit switches. Open-type switches shall not be allowed.

10. Cars shall have enclosures which shall be not less than six feet (6') in height provided the stanchions and bow iron are of sufficient height. The enclosure shall be provided with electric contacts to prevent the car from running with doors or gates open.

11. Cars shall have safeties. Where the speed of the elevator does not exceed fifty (50) fpm, car safeties which operate as a result of breaking or slackening of the hoisting ropes may be used. Such safeties may be of the inertia type or approved type without governors. Governors shall not be required when car speed does not exceed fifty (50) fpm.

12. Car enclosures and car gates shall not be required for hand-powered sidewalk elevators.

13. All repair and alterations shall comply with ASME A17.1, section 1200.

(Q) Existing Hand Elevators.

1. Hand-powered elevators shall have hoistway doors. Doors shall be of the self-closing and self-locking type.

2. Hoistway doors shall have signs attached to them indicating elevator hoistway. Sign shall be as follows in not less than two-inch (2") letters: DANGER ELEVATOR—KEEP CLOSED.

3. All hand-powered elevators shall be provided with safeties or slack cable devices. Safeties do not have to be operated by a speed governor unless the speed is in the excess of fifty (50) fpm.

4. Hand-powered elevators shall have a car enclosure which shall be constructed of metal or sound seasoned wood. The enclosure shall cover all sides which are not used for entrance or exit. The enclosure shall be secured to the car platform or frame in such a manner that it cannot work loose or become displaced in ordinary service.

5. Each hand-powered elevator shall be provided with a brake which shall be capable of stopping and sustaining the car whether loaded or unloaded.

6. Hand-powered elevators shall not be converted or changed to electric powered unless the complete facility is brought into conformity with ASME A17.1.

7. Repair or replacement of worn or broken parts shall be in compliance with ASME A17.1, rule 1202.2.

(R) Power Operated Special Purpose Elevators.

1. Elevators complying with the following requirements may be installed in any structure where the elevator is not accessible to the general public, is used exclusively for designated operating and maintenance employees only, and where transportation of one (1) or two (2) persons is required to attend machinery or equipment frequently.

2. The inside platform area of the car shall not exceed nine (9) square feet. The rated speed shall not exceed one hundred (100) fpm. The rated load shall not exceed six hundred fifty (650) pounds.

3. Hoistways shall be enclosed to their full width, to a height of not less than seven feet (7') with solid or perforated noncombustible material braced to deflect not more than one inch (1") when subjected to a force of one hundred (100) pounds applied horizontally at any point. Open work enclosures shall be at least number thirteen (13) steel wire gauge or expanded metal at least number thirteen (13) U.S. gauge and shall reject a ball two inches (2") in diameter. Where counterweights pass, landing and stairway side shall be of solid construction.

4. Wiring shall comply with the requirements of ASME A17.1 and NFPA 70.

5. Counterweights shall comply with the requirements of ASME A17.1, Part XV.

6. Hoistway doors shall comply with rules ASME A17.1, Part XV.

7. Cars shall be solidly constructed in accordance with ASME A17.1, Part XV.

8. Car enclosure.

A. Except at the entrance, the car shall be enclosed on all sides and the top. The enclosure at the sides shall be solid or open work. All open work shall reject a ball one inch (1") in diameter. The enclosure shall be constructed of sufficient strength that it will not deflect more than one inch (1") at any one (1) point.

B. There shall be an electric light to illuminate the car or hoistway with the switch placed on or near the operating panel.

C. There shall be no glass used in the elevator car except for the car light.

9. A car door shall be provided at each car entrance. Door or gate shall guard the complete entrance. The door or gate shall be at least seven (7') feet high, of metal construction with solid or open construction to reject a ball one inch (1") in diameter. A contact switch shall be provided to prevent the operation of the elevator with doors or gates open. The door or gate shall be provided with interlocks.

10. Guide rails shall comply with ASME A17.1, Part XV.



11. The means and methods of suspension shall comply with ASME A17.1, Part XV.

12. Electrical switches shall comply with ASME A17.1, Part XV.

13. Brakes shall comply with ASME A17.1, Part XV.

14. Emergency signal or communication shall comply with ASME A17.1, Part XV.

(2) Existing Dumbwaiters, Escalators and Moving Walks.

(A) Dumbwaiters. All dumbwaiters whether electric or hand powered shall conform to ASME A17.1, section 700. Exceptions: Required rules for hoistway construction as set forth in ASME A17.1, shall not apply to existing installations.

(B) Escalators.

1. Each escalator shall be provided with an electrically released mechanically applied brake capable of stopping the up and down traveling escalator with any load up to and including the rated load. The brake shall be located either on the driving machine or on the main drive shaft.

2. Starting switches shall be of the key operated type. Starting switches shall be located on or near the escalator.

3. Emergency stop buttons or other type manually operated switches having red buttons or handles shall be accessibly located at or near the bottom and top landings. The buttons or levers shall be protected to prevent accidental operation.

4. A broken step-chain device shall be provided on each escalator that will cause interruption of power to the driving machine if a step chain breaks or if excessive sag occurs in either step chain.

5. Each escalator shall have comb plates at top and bottom landings of the escalator. Combplate teeth shall be meshed with and set into slots in the tread surface of the steps so that the points of the teeth are always below the upper surface of the treads.

6. Each escalator balustrade or molding on the balustrade shall have a smooth surface. Screw heads shall set flush with the surface or be of the oval head type without any burrs or rough places on their surface.

7. The clearance on either side of the steps between the step tread and the adjacent skirt panel shall be not more than three-sixteenths inch (3/16").

8. Step treads shall be illuminated throughout their run. The light intensity shall be not less than two (2) foot-candles.

9. An enclosed fused disconnect switch or circuit breaker arranged to disconnect the power supply to the escalator shall be in each

machine room or wherever the controller is located.

10. A stop switch shall be provided in each machinery space where means of access to the space is provided. The switch when opened shall cause electric power to be removed from the escalator driving-machine motor and brake. The switch shall be of the manually opened and closed type and shall be marked "STOP."

11. Hand or finger guards shall be provided at the point where the handrail enters the balustrade.

12. Where the clearance of the upper outside edge of the balustrade and a ceiling or scaffold is less than twelve inches or where the intersection of the outside balustrade and a ceiling or soffit is less than twenty-four (24") inches from the centerline of the handrail, a solid guard shall be provided in the intersection of the angle of the outside balustrade and the ceiling or soffit. The vertical front edge of the guard shall project a minimum of fourteen inches (14") horizontally from the apex of the angle. The escalator side of the vertical face of the guard shall be flush with the face of the wellway. The exposed edge of the guard shall be rounded.

(C) Moving Walks.

1. Each moving walk shall be provided with an electrically released, mechanically applied brake capable of stopping and holding treadway with a load up to and including the rated load.

2. Starting switches shall be of the key-operated type and shall be located within sight of the exposed treadway.

3. Each moving walk shall be provided with an emergency stop button or manually operated switch at each entrance and exit. The switches shall be protected to prevent the accidental operation of them. The operation of any of these switches shall interrupt the power to the driving-machine motor and brake.

4. A device shall be provided which will cause interruption of power to the driving-machine motor and brake if the connecting means between pallets break.

5. The entrance to and exit from a moving treadway shall be provided with a threshold plate which shall have teeth and be adjusted so that the teeth are below the treadway.

6. An enclosed fused disconnect switch or a circuit breaker arranged to disconnect the power supply to the moving walk shall be provided in the space where the controller is located.

7. If the balustrade covers the edge of the treadway the clearance between the top surface of the treadway and the underside of the balustrade shall not exceed one-fourth

inch (1/4"). Where skirt panels are used the horizontal clearance on either side of the treadway and the adjacent skirt panel shall be not more than one-fourth inch (1/4").

8. A stop switch shall be provided in each machinery space where means of access to the space is provided. The switch when opened shall cause electrical power to be removed from the driving-machine motor and brake. The switch shall be of the manually operated type, and shall be marked "STOP."

9. Hand or finger guards shall be provided at the point handrails enter the balustrade.

10. All balustrades shall be smooth and free of rough surfaces. All screws shall be flush or oval head. Screw heads shall be smooth and free of burrs.

11. On pallet type treadways adjacent ends of the pallets shall not vary in elevation more than one-sixteenth inch (1/16"). The distance between pallets shall not exceed five thirty-seconds inch (5/32").

12. All repairs and alterations shall comply with ASME A17.1.

*AUTHORITY: section 701.355, RSMo 1994. \* Original rule filed Aug. 26, 1998, effective July 1, 1999.*

*\*Original authority 1994.*

**11 CSR 40-5.070 Accessibility to the Disabled**

*PURPOSE: This rule is to address the ADA requirements for elevators.*

*PUBLISHER'S NOTE: The publication of the full text of the material that the adopting agency has incorporated by reference in this rule would be unduly cumbersome or expensive. Therefore, the full text of the material will be made available to any interested person at both the Office of the Secretary of State and the office of the adopting agency, pursuant to section 536.031.4, RSMo. Such material will be provided at the cost established by state law.*

(1) New Installations of Accessible Passenger Elevators and Wheelchair Lifts. In addition to the standards imposed, the board hereby adopts and incorporates herein the *American National Standards Institute Standard for Buildings and Facilities Providing Accessibility and Usability for Physically Disabled People*, ANSI A117.1, Sections 4.10.1 through 4.10.14 and 4.11 latest version adopted and amended by the Elevator Safety Board.

(2) Existing passenger elevators and wheelchair lifts required to be accessible, shall comply with 4.10.2.1–4.10.2.7 of ANSI A117.1, latest version adopted and amended by the Elevator Safety Board. The owner, operator, lessee or agent of either, of any existing elevator equipment, subject to this section shall have one (1) year from the effective date of these rules and regulations, or when notice is given to comply; or within one (1) year the owner, operator, lessee, or agent of either, of any existing elevator equipment, subject to this section shall submit a plan to the board, for approval, outlining the dates to which the requirements of this section will be complied with.

*AUTHORITY: section 701.355, RSMo 1994.\* Original rule filed Aug. 26, 1998, effective July 1, 1999.*

*\*Original authority 1994.*

### 11 CSR 40-5.080 Alterations, Repairs, Replacements, and Maintenance

*PURPOSE: This rule is to address alterations/repairs, replacements and maintenance of elevators.*

*PUBLISHER'S NOTE: The publication of the full text of the material that the adopting agency has incorporated by reference in this rule would be unduly cumbersome or expensive. Therefore, the full text of the material will be made available to any interested person at both the Office of the Secretary of State and the office of the adopting agency, pursuant to section 536.031.4, RSMo. Such material will be provided at the cost established by state law.*

(1) Minimum Standards. When any alterations, repairs, replacements or maintenance are made, all elevator equipment, as a minimum, shall conform to the requirements of Part XII of the ASME A17.1, of the latest version adopted and amended by the Elevator Safety Board. The foregoing standard is incorporated by reference in this rule.

(2) Alteration Permit.

(A) Prior to the alteration or major repair of any elevator equipment, an alteration permit shall be obtained from the department or its authorized representative.

(B) Alteration Permit Obtained from the Department.

1. Application for an alteration permit shall be made on a form furnished by the department and shall be submitted by the installing contractor, or in the absence of an

installing contractor, the owner, operator, lessee or agent of either. The application shall require the submission of detailed plans and specifications.

2. Upon receipt of an application and the required fee for an alteration permit, the required plans and specifications, shall be reviewed by the department for compliance with the provisions of these rules and regulations. The department shall issue an alteration permit or shall notify the applicant in writing of the reasons the alteration permit is denied.

3. Any applicant who has been denied an alteration permit by the department may appeal that denial to the Elevator Safety Board, as provided in 11 CSR 40-5.140 as listed herein.

(C) Alteration Permits Obtained from Authorized Representative. Procedures for alteration permits shall be defined by the authorized representative.

(3) Inspection and Testing.

(A) Prior to the operation of any elevator equipment, which has undergone an alteration or major repair and prior to the issuance of a new operating certificate, the elevator equipment shall be inspected by a licensed inspector. Testing must be performed in accordance with these rules and regulations. The testing must be witnessed by a licensed inspector.

(B) An inspection report shall be filed with the department or its authorized representative, installing contractor and the owner, operator, lessee or agent of either, by the licensed inspector within ten (10) days after completion of the inspection. The inspection report shall be on a form furnished and approved by the department or its authorized representative. It shall indicate whether the elevator equipment was installed in accordance with the plans and specifications approved by the department or its authorized representative and meets the requirements of these rules and regulations.

(4) Operating Certificate for Alterations, Repairs, Replacement and Maintenance. Prior to operating, any altered elevator equipment an operating certificate must be obtained in accordance with 11 CSR 40-5.100 as listed herein.

*AUTHORITY: section 701.355, RSMo 1994.\* Original rule filed Aug. 26, 1998, effective July 1, 1999.*

*\*Original authority 1994.*

### 11 CSR 40-5.090 Inspection and Testing

*PURPOSE: The purpose of this rule is to identify requirements for periodic inspections and testing of elevators. Inspections will be by qualified elevators inspectors (QEI) every year.*

*PUBLISHER'S NOTE: The publication of the full text of the material that the adopting agency has incorporated by reference in this rule would be unduly cumbersome or expensive. Therefore, the full text of the material will be made available to any interested person at both the Office of the Secretary of State and the office of the adopting agency, pursuant to section 536.031.4, RSMo. Such material will be provided at the cost established by state law.*

(1) Minimum Standard. All inspections and testing required by Missouri Statute 701.350–701.380 and these rules and regulations shall be made in accordance with the standards established by these rules and regulations and the American Society of Mechanical Engineers Manuals for Elevators and Escalators, ASME A17.1, A17.2, A17.2.1, A17.2.2 and A17.2.3, latest version adopted and amended by the Elevator Safety Board excluding routine inspection requirements of part 10 in ASME A17.1. The foregoing standards are incorporated by reference in this rule.

(2) Periodic Inspections.

(A) The owner, operator, lessee, or agent of either of any elevator equipment as described herein shall have it inspected, every twelve months, as defined by sections 701.350–701.380, RSMo and these rules and regulations. The inspection may be made within thirty (30) days prior to or thirty (30) days following the anniversary date of the initial inspection. Other variations to the twelve (12)-month inspection period may be authorized by the chief elevator inspector as deemed necessary to schedule inspections in remote locations or for multiple elevator equipment situations.

(B) Any inspection required by sections 701.350–701.380, RSMo and these rules and regulations shall be made only by inspectors licensed in accordance with the provisions of sections 701.350–701.380, RSMo and 11 CSR 40-5.120 of these rules and regulations.

(C) In addition to required inspections, the department or its authorized representative may designate a licensed inspector to make such additional inspections as may be required to enforce the provisions of sections 701.350–701.380, RSMo and these rules and regulations.



(3) Testing Procedures.

(A) All tests shall be made in accordance with the applicable ASME code as adopted and amended by the Elevator Safety Board.

(B) Licensed inspectors shall not be allowed to perform any testing.

(C) Tests required by these rules and regulations shall be made by a person qualified to perform such service employed by the owner, operator, lessee or agent of either, in the presence of a licensed inspector. The department or its authorized representative has within its discretion, the authority to allow the testing to be performed without a licensed inspector present. In such cases, the elevator equipment shall be properly tagged by the qualified person performing the testing. The inspector shall verify the proper tagging of the elevator equipment within a ten (10)-day period. It will be required, without exception, that the testing be witnessed in the presence of a licensed inspector, at least every five (5) years.

(4) Inspection Reports.

(A) Inspection Reports Filed with the Department by Licensed Inspectors. A report of every required inspection shall be filed with the department by the licensed inspector making the inspection, on a form approved by the department, within fifteen (15) days after the inspection or test has been completed.

(B) Inspection Reports Filed with Authorized Representatives by Licensed Inspectors. Procedures for filing inspection reports with the authorized representative shall be defined by the authorized representative.

(C) Inspection Reports Filed with the Department by Authorized Representatives. The authorized representative shall file all inspection reports, completed within their designated area, with the department, within thirty (30) days after the inspection or test has been completed, on a form approved by the department.

(D) In the event the required inspection report is not filed with the department in the applicable time frame after the final date when the elevator equipment should have been inspected, the chief elevator inspector may allow for an extension of time or may require additional inspections as deemed necessary to enforce the provisions of sections 701.350–701.380, RSMo and these rules and regulations.

*AUTHORITY: section 701.355, RSMo 1994. \* Original rule filed Aug. 26, 1998, effective July 1, 1999.*

\*Original authority 1994.

**11 CSR 40-5.100 State Operating Certificate and Local Operating Certificate**

*PURPOSE: This rule is to require a state operating permit for all elevators.*

(1) State Operating Certificate Requirements.

(A) A state operating certificate shall be issued by the department directly to the owner, operator, lessee or agent of either, of the elevator equipment when the inspection report indicates compliance with the applicable provisions of sections 701.350–701.380, RSMo these rules and regulations and the state operating certificate fees have been paid. Following receipt of the inspection report, the department shall issue a notice that state operation certificate fees are due. The owner, operator, lessee or agent of either will then have thirty (30) days to respond to the department. The department may allow for an extension of fees as deemed necessary by the chief elevator inspector upon a proper written request received prior to the expiration of the thirty (30) days. No elevator equipment shall be operated after one hundred twenty (120) days, after an inspection report or after an extension granted by the chief elevator inspector has expired, unless the owner, operator, lessee or agent of either has obtained a state operating certificate issued by the department or unless the owner, operator, lessee or agent of either has complied with all provisions of these rules and regulations, but has not yet received the certificate. The burden of proof to establish compliance with all provisions of these rules and regulations shall be on the owner, operator, lessee or agent of either.

(B) A state operating certificate shall be issued for a period of one (1) year and the expiration date shall appear on its face.

(2) Display of State Operating Certificate. The owner, operator, lessee or agent of either shall post the operating certificate in the elevator equipment room, in a noncombustible frame with a clear protective vision plate over it. For installations without an elevator room the state operating certificate shall be posted as directed by the chief elevator inspector.

(3) State Operating Certificate Information.

(A) The state operating certificate shall indicate the following information:

1. The state number, issued by the department to that installation;
2. The type of elevator equipment for which it is issued;
3. In the case of elevators, whether passenger or freight;
4. The owner, operator, lessee or agent of either to whom the certificate is issued;

5. The location of the elevator equipment;

6. The contract load and rated speed;

7. The expiration date;

8. The name of the permitting authority and the licensed inspectors name; and

9. The date of the periodic inspection and test.

(B) In addition to other requirements, state operating certificates for vertical wheelchair lifts, inclined wheelchair lifts and inclined stairway chair lifts shall state the following:

**LIMITED USE ONLY  
NOT FOR GENERAL PUBLIC USE**

(4) Denial of State Operating Certificate.

(A) State operating certificate will be referred to as certificates.

(B) The certificate may not be issued if the fees required by 11 CSR 40-5.110 have not been paid.

(C) The department may deny any certificate for cause, which shall include the failure to comply with the provisions of sections 701.350–701.380, RSMo, these rules and regulations or the detailed plans and specifications approved by the department at time of installation. In determining whether there exists cause to deny any certificate, the department may rely on an inspection report filed by a licensed inspector.

(D) The department shall notify the owner, operator, lessee or agent of either, in writing of the reasons for which the certificate is denied; the changes necessary for compliance; and information regarding their right to appeal.

(E) Any owner, operator, lessee or agent of either who has been denied a certificate by the department may appeal that denial to the department, provided a written request to appeal is received by the department with twenty-one (21) days from the issuance of the notice of the denial to the owner, operator, lessee or agent of either.

(F) As a condition of maintaining his/her license, the department may require the presence of the licensed inspector, upon whose report the denial of the certificate was based, at any hearing on such denial.

(5) Revocation of State Operating Certificate.

(A) State operating certificate will be referred to as certificates.

(B) A certificate may be revoked if the fees required by 11 CSR 40-5.110 have not been paid.

(C) The department may immediately revoke any certificate if it determines there is a failure to comply with the provisions of sections 701.350–701.380, RSMo, these



rules and regulations, or the detailed plans and specifications approved by the department at the time of installation and such elevator equipment is in an unsafe condition, where its continued operation may be dangerous to the public safety. In making such a determination the department may rely on an inspection report filed by a licensed inspector.

(D) Immediate Revocation.

1. In order to immediately revoke a certificate, the licensed inspector shall place a tag or warning notice on or in the elevator equipment notifying the owner, operator, lessee or agent of either and the public that its use has been ordered to be discontinued. Such warning shall read as follows:

WARNING ORDER

The Missouri Department of Elevator Safety has determined that this equipment is in an unsafe condition, so that its continued operation would be dangerous. The Missouri Department of Elevator Safety has ordered that the use of this equipment be discontinued until it has been made safe in conformity with the provisions of sections 701.350-701.380, RSMo and the rules and regulations of the Missouri Elevator Safety Board.

Continued operation of this equipment or removal of this notice may result in criminal and/or civil penalties.

This action is taken pursuant to the authority granted by sections 701.350-701.380, RSMo.

The specific conditions found by the Missouri Department of Elevator Safety, which has rendered this equipment unsafe, are as follows:

\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_

This tag shall only be removed by authority of the Chief Elevator Inspector.

Department of Public Safety
Division of Elevator Safety
P.O. Box 844
Jefferson City, Missouri 65102
By: \_\_\_\_\_
Date: \_\_\_\_\_

2. The licensed inspector shall provide immediate written notice to the owner, operator, lessee or agent of either present at the location of the elevator equipment and to the department. This notice shall include the following:

- A. A copy of any applicable inspection report;
B. A copy of the warning notice;
C. The reason for revocation of the certificate;
D. The changes necessary for compliance; and
E. Information on how to appeal a revocation order.

(E) Any person aggrieved by a revocation order may appeal by the rules and regulations established under 11 CSR 40-5.140 as listed herein.

(F) In the event the owner, operator, lessee or agent of either is not present at the location of the elevator equipment, the licensed inspector shall mail the notice required by 11 CSR 40-5.100, subsection (5)(D) as listed herein, to the owner, operator, lessee or agent of either within twenty-four (24) hours.

(6) Local Operating Certificate. Procedures for local operating certificates shall be defined by the authorized representative.

AUTHORITY: section 701.355, RSMo 1994.\* Original rule filed Aug. 26, 1998, effective July 1, 1999.

\*Original authority 1994.

11 CSR 40-5.110 Fees and Penalties

PURPOSE: This rule is to meet the statutory requirement that sections 701.350-701.380, RSMo be self-funding without use of general fund monies once the program is running. It is estimated that it will take approximately two (2) years to become self-funding.

(1) New Construction.

(A) Plan Review Fee. The following plan review fees shall be paid to the department for each elevator equipment to be installed within its governing authority, excluding any elevator equipment being installed in the authorized representatives designated areas. In such cases the fee schedule would be as defined by and paid to the authorized representative. The plan review fee is a base fee of one hundred fifty dollars (\$150) plus twenty-five dollars (\$25) for each opening.

(B) Permit Fee. Permit fees are included in the plan review fees.

(C) Inspection Fee. The following inspection fee shall be paid to the department for

each unit of elevator equipment to be inspected by a department employed licensed inspector, excluding any elevator equipment being inspected in the authorized representatives designated areas or if being inspected by a special inspector. In such cases the fee schedule would be as defined by and paid to the authorized representative or special inspector. The initial inspection fee is one hundred twenty-five dollars (\$125) plus any expenses incurred. The reinspection fee for each reinspection is one hundred twenty-five dollars (\$125) plus any expenses incurred.

(D) Temporary Operating Fees. The department may, at its discretion, permit temporary operation pending correction of defects. Such temporary operation shall be limited to sixty (60) days but may be renewed at the discretion of the department for additional periods of not more than thirty (30) days each. The following temporary fee shall be paid to the department for each unit of elevator equipment to be used on temporary operation. The fee for temporary operation is seventy-five dollars (\$75) per each thirty (30)-day period.

(E) State Operating Certificate Fee. The annual state operating certificate fee of twenty dollars (\$20) shall be paid directly to department for each unit of elevator equipment installed within the state regardless of geographic location of the elevator. If fees are not paid to the department within the required amount of time, revocation of operation may be enforced, per 11 CSR 40-5.100.

(2) Alterations.

(A) Plan Review Fee. To be same as for new construction, of this section, except when plans are not applicable, a letter describing the work to be performed may be submitted, which clearly defines that the work will comply with these rules and regulations.

(B) Inspection Fee. To be same as for new construction, of this section.

(C) Temporary Operating Fees. To be same as for new construction, of this section.

(D) State Operating Certificate Fee. To be same as for new construction, of this section.

(3) Periodic Inspections.

(A) Inspection Fee. To be same as for new construction, of this section.

(B) State Operating Certificate Fee. To be same as for new construction, of this section.

(4) Inspector License Fee. The annual license fee shall be twenty-five dollars (\$25).

(5) Penalties.

(A) Any owner, operator, lessee or agent of either who willfully violates any provision

required by sections 701.350–701.380, RSMo and these rules and regulations or operates an installation ordered out of service shall be guilty of the crime abuse of elevator safety.

(B) Abuse of elevator safety is a class C misdemeanor.

(6) Fee Schedule. Fees are established and set in accordance with the sections 701.350–701.380, RSMo. The board is to review the fee schedule once a year and alter as deemed necessary to comply with sections 701.350–701.380, RSMo.

*AUTHORITY: section 701.355, RSMo 1994. \*Original rule filed Aug. 26, 1998, effective July 1, 1999.*

*\*Original authority 1994.*

**11 CSR 40-5.120 Inspectors**

*PURPOSE: This rule identifies qualifications for inspectors employed by the state, private industry and authorized jurisdictions. The majority of inspections will be by private industry and authorized jurisdictions.*

(1) Certification Required. The inspection of all elevator equipment required by sections 701.350–701.380, RSMo and these rules and regulations shall be made only by a licensed inspector certified by the board.

(A) Inspectors certified by the board and directly employed by the state, municipality, political subdivision or authorized representative in a full-time position are exempt from the insurance requirements listed herein, until such time as they perform inspections outside the jurisdiction of the governing authority.

(2) Qualification. To be eligible for a license to inspect elevator equipment, the applicant or licensee shall—

(A) Have a high school diploma or general educational development (GED) equivalent;

(B) Have had at least four (4) years experience in some mechanical or electrical endeavor, at least one (1) year of which shall have been in the design, construction, installation, repair or inspection of elevators. The non-elevator, mechanical, or electrical experience shall be at the journeyman mechanical level or technical work and the work must have been comparable to work in the elevator industry. Engineering education on a college level may be substituted on a year-for-year basis for the non-elevator qualifying experience. The one (1) year of required elevator experience may be on the basis of continuous employment for one (1) year in which at least

half (1/2) of the applicant’s time is devoted to elevator work;

(C) Have successfully passed the written examination for elevator inspectors administered by an association accredited by the American Society of Mechanical Engineers and evidenced by a certification of the applicant or licensee as a qualified elevator inspector (QEI). This is commonly referred to as being QEI certified;

(D) Have submitted proof of insurance coverage insuring the applicant against liability for injury or death for any acts or omissions on the part of the applicant. The insurance policy shall be in the amount of not less than one (1) million dollars for bodily injury to or death of one person in any one accident, and, subject to the limit for one (1) person, in an amount of not less than three (3) million dollars for bodily injury to or death of two (2) or more persons in any one (1) accident, and in an amount of not less than fifty thousand dollars (\$50,000) for damage to or destruction of property in any one (1) accident. Additionally, insurance coverage of an employer for whom the special inspector is employed shall be considered to comply with the aforementioned, if the coverage provides equivalent coverage for each special inspector; and

(E) Have no direct financial interest in any business or operation which manufactures, installs, repairs, modifies or services elevator equipment. This qualification does not prohibit employees of insurance companies insuring automatic elevator equipment from obtaining a license as an inspector.

(3) Grandfather Clause. All existing inspectors, shall have one (1) year from the effective date of these rules and regulations to meet the qualifications established by sections 701.350–701.380, RSMo. At the end of one (1) year from the effective date of these rules and regulations, the applicant must comply with the requirements as defined in 11 CSR 40-5.120 as listed herein.

(4) Application.

(A) A written application for a license shall be on a form supplied by the department, which shall include a statement of the applicant’s experience and proof that the applicant is QEI certified.

(B) The board shall consider an application for a license at its next regular meeting, which shall in no event be more than three (3) months from the date the department received the application.

(5) Issuance.

(A) The department shall issue a license immediately upon the board’s approval of an

applicant and the payment of a fee in accordance with 11 CSR 40-5.110.

(B) A license shall expire one (1) year from the date of issuance or renewal. License shall be renewed annually. The annual inspector license fee shall be in accordance with 11 CSR 40-5.110 as listed herein.

(6) Prohibited Activities.

(A) No licensed inspector shall inspect any elevator equipment if the licensed inspector, has a direct financial interest in the building or operation in which the elevator equipment is located.

(B) No licensed inspector shall have or maintain a financial interest in any business which manufactures, installs, alters, or services elevator equipment.

(C) No licensed inspector shall recommend or refer one of his/her clients or customers to a specific business, firm, or corporation which manufactures, installs, repairs, alters, or services elevator equipment.

(7) Financial Disclosure. On or before January 31 of each year, all licensed inspectors shall file, with the department, a financial disclosure statement on forms provided by the department and approved by the board. Such forms shall include, but not be limited to, the following:

(A) The name and address of any corporation, firm, or enterprise in which the licensed inspector has a direct financial interest of a value in excess of one thousand dollars (\$1,000). Policies of insurance issued to the licensed inspector or their spouse are not to be considered a financial interest;

(B) A list of every office or directorship held by the licensed inspector or their spouse, in any corporation, firm, or enterprise subject to jurisdiction of the board; and

(C) A list showing the name and address of any person, corporation, firm, or enterprise from which the licensed inspector received compensation in excess of one thousand five hundred dollars (\$1,500) during the preceding year.

(8) Revocation and Suspension of License.

(A) The board may revoke or suspend any license for cause. Such cause shall include, but not be limited to the following:

1. Failure to comply with the provisions of sections 701.350–701.380, RSMo, or these rules and regulations; and

2. Falsifying or making a material misstatement or omission on any application for license, financial disclosure statement, or inspection report.

(B) The department shall give notice to the licensee by mail at least fifteen (15) days prior to any hearing before the board regarding a license suspension or revocation. Such notice shall state the date, time and place of hearing, and shall contain a statement of the alleged facts or conduct warranting the proposed suspension or revocation.

(C) If the chief elevator inspector notifies the board or the board finds that the public safety imperatively requires emergency action, and the board incorporates a finding to that effect in its order, summary suspension of a license may be ordered pending the immediate initiation of the license revocation procedures. In such an event, the licensee shall be given written notice of the suspension. Such notice shall state the date, time, and place of an emergency revocation hearing and a statement of the alleged facts or conduct warranting the summary suspension and proposed revocation. Hearing to be held within five (5) days of receipt of the notice.

*AUTHORITY: section 701.355, RSMo 1994.\* Original rule filed Aug. 26, 1998, effective July 1, 1999.*

*\*Original authority 1994.*

### 11 CSR 40-5.130 Variances

*PURPOSE: This rule describes the process to request exceptions or variances to the rules.*

*PUBLISHER'S NOTE: The publication of the full text of the material that the adopting agency has incorporated by reference in this rule would be unduly cumbersome or expensive. Therefore, the full text of the material will be made available to any interested person at both the Office of the Secretary of State and the office of the adopting agency, pursuant to section 536.031.4, RSMo. Such material will be provided at the cost established by state law.*

(1) Sections 701.350–701.380, RSMo, and these rules and regulations authorize the board in any particular case to grant exceptions and variances. Such exceptions or variances shall only be granted where it is clearly evident that they are necessary in order to prevent undue hardship or where the existing conditions prevent compliance with the literal requirements of the rules and regulations. In no case shall any exception or variation be granted unless, in the opinion of the board, reasonable safety will be secured.

(2) Application for a Variance.

(A) An application for a variance shall be submitted by the owner, operator, lessee or agent of either to the department on a form supplied by and approved by the department. The application shall be accompanied by the following:

1. An application for installation, and detailed plans and specifications as required by 11 CSR 40-5.050 as listed herein; or

2. An application for alteration, and detailed plans and specifications as required by 11 CSR 40-5.080 as listed herein.

(B) The department shall review the application for a variance and its attachments. The department shall conduct an on-site inspection of any elevator equipment in existence. The department shall prepare a report for the board and its recommendations which shall include a copy of any inspection report and copies or citations to any applicable ASME Code standards, which are incorporated in this rule by reference.

(3) The department shall notify the applicant for the variance of the date, time, and place of the hearing, before the board, on the application for a variance. Such notice shall include a copy of the department's report for the board and its recommendations.

(4) After the hearing, the board shall grant or deny the variance. The board may grant a variance conditioned upon the provision of alternate means of providing for public safety.

(5) If the board grants a variance, a variance certificate shall be issued by the department. Such a certificate shall reflect on its face the following:

(A) The state number assigned by the department;

(B) The type of equipment for which it is issued;

(C) The owner, operator, lessee or agent of either to whom the variance is granted;

(D) The location of the elevator equipment; and

(E) Any conditions imposed by the board.

(6) The owner, operator, lessee or agent of either shall maintain the variance certificate at the location of the elevator equipment and make it accessible to any licensed inspector.

*AUTHORITY: section 701.355, RSMo 1994.\* Original rule filed Aug. 26, 1998, effective July 1, 1999.*

*\*Original authority 1994.*

### 11 CSR 40-5.140 Appeals

*PURPOSE: This rule identifies the appeal process for persons aggrieved by sections 701.350–701.380, RSMo or rules 11 CSR 40-5.010 through 11 CSR 40-5.115.*

(1) Appeals as Provided by Sections 701.350–701.380, RSMo.

(A) Any person aggrieved by an order or act of the department, under sections 701.350–701.380, RSMo and these rules and regulations, may within fifteen (15) days after notice thereof, appeal the order or act to the board which shall, within forty-five (45) days thereafter, hold a hearing of which at least fifteen (15) days written notice shall be given to all interested parties.

(B) The board shall, within forty-five (45) days after the hearing, issue an appropriate order modifying, approving, or disapproving the order or act.

(C) A copy of the order, by the board, shall be served upon all interested parties.

*AUTHORITY: section 701.355, RSMo 1994.\* Original rule filed Aug. 26, 1998, effective July 1, 1999.*

*\*Original authority 1994.*

### 11 CSR 40-5.150 Repealer and Effective Date

*PURPOSE: This rule repeals any previous rules or regulations concerning elevators that may have been issued. It also provides for a six-month exemption from some situations.*

(1) All previous rules and regulations of the Elevator Safety Board are hereby repealed.

(2) The effective date of these rules and regulations is the first day of July, 1999.

(3) The director of the Department of Public Safety may grant a grace period of six (6) months for those persons aggrieved by the promulgation of these rules and regulations under this section. Within thirty (30) days after notice thereof, written notice shall be given to all interested parties.

*AUTHORITY: section 701.355, RSMo 1994.\* Original rule filed Aug. 26, 1998, effective July 1, 1999.*

*\*Original authority 1994.*