Department of Labor and Industry

Proposed Permanent Rules Relating to Elevators and Related Devices

1307.0010 PURPOSE AND SCOPE.

The provisions of parts 1307.0010 to 1307.0110 are to safeguard life, limb, property, and public welfare by establishing minimum requirements relating to the design, construction, installation, alteration, repair, removal, and operation and maintenance of passenger elevators, freight elevators, handpowered elevators, dumbwaiters, escalators, moving walks, vertical reciprocating conveyors, stage and orchestra lifts, endless belt lifts, wheelchair lifts, and other related devices. The requirements for the enforcement of these provisions are established by this chapter, and by municipal option, according to Minnesota Statutes, section 326B.184, subdivision ~~3~~ 4.

1307.0020 CODES ADOPTED BY REFERENCE.

Subpart 1. **Incorporation by reference.** The following are incorporated by reference, are not subject to frequent change, and are made part of the Minnesota State Building Code as amended in this chapter: Chapter 30 of the ~~2006~~ 2012 International Building Code, published by the International Codes Council, ~~5203 Leesburg Pike, Suite 600, Falls Church, VA 22041;~~ Inc., Washington, D.C., copyright 2012, portions reproduced with permission, all rights reserved; ASME ~~A17.1-2004 with 2005 A17.1A Addenda and the Supplement ASME A17.1S-2005~~ A17.1/CSA B44-2010 Safety Code for Elevators and Escalators; ASME ~~A17.3-2002~~ A17.3-2011 Safety Code for Existing Elevators and Escalators; ASME ~~A17.5-2004~~ A17.5-2011 Elevator and Escalator Electrical Equipment; ASME ~~A18.1-2005~~ A18.1-2011 Safety Standard for Platform Lifts and Stairway Chairlifts; ASME ~~A90.1-2003~~ A90.1-2009 Safety Standard for Belt Manlifts; ASME ~~B20.1-2003~~ B20.1-2009 Safety Standard for Conveyors and Related Equipment as published by the American Society of Mechanical Engineers, United Engineering Center, 345 East 47th Street, New York, New York 10017. These documents are available in the office of the commissioner of labor and

industry. ~~Portions of this chapter reproduce text and tables from Chapter 30 of the 2006 International Building Code. The International Building Code is copyright 2006 by the International Code Council, Inc. All rights reserved.~~

[For text of subps 2 and 3, see M.R.]

1307.0027 DEFINITIONS.

Subpart 1. **Scope.** The definitions in this part apply to parts 1307.0010 to 1307.0110.

Subp. 1a. **Approved.** "Approved" means approval by the building official, pursuant to the Minnesota State Building Code, by reason of:

A. inspection, investigation, or testing;

B. accepted principles;

C. computer simulations;

D. research reports; or

E. testing performed by either a licensed engineer or by a locally or nationally recognized testing laboratory.

Subp. 2. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010.** "ASME ~~A17.1-2004~~ A17.1/CSA B44-2010" means the ASME ~~A17.1-2004 with 2005 A17.1A Addenda and the Supplement ASME A17.1S-2005~~ A17.1/CSA B44-2010, Safety Code for Elevators and Escalators.

Subp. 3. **ASME ~~A17.3-2002~~ A17.3-2011.** "ASME ~~A17.3-2002~~ A17.3-2011" means the ASME ~~A17.3-2002~~ A17.3-2011 Safety Code for Existing Elevators and Escalators (and related equipment).

Subp. 4. **ASME ~~A17.5-2004~~ A17.5-2011.** "ASME ~~A17.5-2004~~ A17.5-2011" means the ASME ~~A17.5-2004~~ A17.5-2011 Elevators and Escalators Electrical Equipment.

Subp. 5. **ASME ~~A18.1-2005~~ A18.1-2011.** "ASME ~~A18.1-2005~~ A18.1-2011" means the ASME ~~A18.1-2005~~ A18.1-2011 Safety Standard for Platform Lifts and Stairway Chairlifts.

Subp. 6. **ASME ~~A90.1-2003~~ A90.1-2009.** "ASME ~~A90.1-2003~~ A90.1-2009" means the ASME ~~A90.1-2003~~ A90.1-2009 Safety Standard for Belt Manlifts.

Subp. 7. **ASME ~~B20.1-2003~~ B20.1-2009.** "ASME ~~B20.1-2003~~ B20.1-2009" means the ASME ~~B20.1-2003~~ B20.1-2009 Safety Standard for Conveyors and Related Equipment.

[For text of subps 8 to 11, see M.R.]

Subp. 12. **Dormant elevator, dormant dumbwaiter, or dormant escalator.** "Dormant elevator," "dormant dumbwaiter," or "dormant escalator" means an installation placed out of service as specified in ASME ~~A17.1-2004~~ A17.1/CSA B44-2010, 8.11.1.4.

Subp. 13. **Endless belt lift.** "Endless belt lift" means belt manlifts and is governed by ASME ~~A90.1-2003~~ A90.1-2009 Safety Standard for Belt Manlifts.

Subp. 14. **Existing installation.** "Existing installation" means ~~one for which~~ that, before ~~January 29, 2007~~ the effective date of this code:

[For text of items A and B, see M.R.]

Subp. 15. **International Building Code or IBC.** "International Building Code" or "IBC" means the International Building Code, as promulgated by the International Codes Council, ~~5203 Leesburg Pike, Suite 600, Falls Church, VA 22041~~ Washington, D.C., and as adopted by reference in part 1305.0011.

[For text of subps 16 and 17, see M.R.]

Subp. 18. **Vertical reciprocating conveyor.** "Vertical reciprocating conveyor" means a vertical device for moving material only that is not designed to carry passengers or an

operator, and that is governed by ASME ~~B20.1-2003~~ B20.1-2009, Safety Standard for Conveyors and Related Equipment.

1307.0030 PERMITS.

Subpart 1. **Permits required.** It is unlawful for any person, firm, or corporation to hereafter install any new passenger elevators, freight elevators, handpowered elevators, moving walks, escalators, dumbwaiters, wheelchair lifts, endless belt lifts, vertical reciprocating conveyors, stage and orchestra lifts, or any other related device, or make alterations or repairs to or remove any existing of the same without having first obtained a permit for the work from the authority having jurisdiction. Alterations, modifications, and practical difficulties will be done in keeping with the rules of the Department of Labor and Industry.

Permits for repairs are required by the Department of Labor and Industry for the following ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 sections: 8.6.2.3 repair of speed governors; 8.6.2.4 repair of releasing carrier; ~~8.6.3.3.2~~ 8.6.3.3 rope fastenings and hitch plates; 8.6.3.4 replacement of governor rope; 8.6.3.6 replacement of speed governor; ~~8.6.3.10~~ 8.6.3.9 replacement of releasing carrier; and ~~8.6.3.9~~ 8.6.3.10 replacement of hydraulic jack plunger; cylinder, tanks, valve, and anticreep leveling device.

[For text of subps 2 and 3, see M.R.]

Subp. 4. **Certificate of operation required.** It is unlawful to operate equipment governed by ASME ~~A17.1-2004~~ A17.1/CSA B44-2010, ASME ~~A17.3-2002~~ A17.3-2011, and ASME ~~A90.1-2003~~ A90.1-2009 without a current Certificate of Operation issued by the authority having jurisdiction. The certificate will be issued upon payment of prescribed fees and the presentation of a valid inspection report indicating that the conveyance is safe and that the inspections and tests have been performed according to this code. A certificate will not be issued when the conveyance is posted as unsafe.

Subp. 5. **Application for certificate of operation.** Application for a certificate of operation ~~must~~ shall be made by the owner, or an authorized representative, for equipment governed by ASME ~~A17.1-2004~~ A17.1/CSA B44-2010, ASME ~~A17.3-2002~~ A17.3-2011, and ASME ~~A90.1-2003~~ A90.1-2009. The application ~~must~~ shall be accompanied by an inspection report. Fees for the Certificate of Operation ~~must~~ shall be as specified by the administrative authority.

1307.0035 INSPECTION, TESTS, AND APPROVALS.

Subpart 1. **Approval of plans.** Any person, firm, or corporation desiring to install, relocate, alter, or remove any installation covered by this chapter ~~must~~ shall obtain approval for doing so from the authority having jurisdiction. Two sets of drawings and/or specifications, or PDF files containing the same information if submitted electronically, showing the installation, relocation, alteration, or removal ~~must~~ shall be submitted as required by the authority having jurisdiction. A corporation desiring to install, relocate, alter, or remove any installation covered by this chapter ~~must~~ shall obtain approval for doing so from the authority having jurisdiction. Two sets of drawings and/or specifications showing the installation, relocation, alteration, or removal ~~must~~ shall be submitted as required by the authority having jurisdiction.

[For text of subp 2, see M.R.]

Subp. 3. **Approval.** A certificate or letter of approval ~~must~~ shall be issued by the authority having jurisdiction for equipment governed by ASME ~~A17.1-2004~~ A17.1/CSA B44-2010, ASME ~~A17.3-2002~~ A17.3-2011, ASME ~~A90.1-2003~~ A90.1-2009, and ASME ~~B20.1-2003~~ B20.1-2009 when the entire installation is completed in conformity with this code.

[For text of subp 4, see M.R.]

1307.0047 SPECIAL PROVISIONS.

Subpart 1. **Scope.** The special provisions in this part apply to the design, construction, and installation of equipment governed by ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 and ASME ~~A17.3-2002~~ A17.3-2011.

Subp. 2. **Chairlifts.** Inclined stairway chairlifts shall only be installed within a private residence or as approved in accordance with Minnesota Statutes, section 471.471. The installation shall be in accordance with ASME ~~A18.1-2005~~ A18.1-2011.

[For text of subp 3, see M.R.]

Subp. 4. **Rooftop elevators.** Passenger and freight elevators are permitted at rooftops when conditioned space or rooftop elevators meeting ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 5.6 are provided.

[For text of subps 5 to 7, see M.R.]

Subp. 8. **All work required for compliance with ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 8.6.5.8 Safety Bulkhead.** All work required for compliance with ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 8.6.5.8 ~~must~~ shall be completed within 60 months of January 29, 2007. Failure to complete the work within the required time period will result in the elevator being removed from service until such work has been completed.

Starting 12 months after January 29, 2007, until the elevator complies with ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 8.6.5.8, the owner or owner's agent ~~must~~ shall annually submit a notarized statement that an oil usage log is being properly utilized by the owner or owner's agent or elevator maintenance company and that the elevator has successfully passed the annual tests required by ASME ~~A17.1-2004 8.11.3.2.1~~ A17.1/CSA B44-2010 8.6.5.14.1 and ~~8.11.3.2.2~~ 8.6.5.14.2. A copy of the test report shall be included with the statement.

Subp. 9. **All work required for compliance with ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 8.6.5.8 Bulkhead Material Transfer Device.** Elevators shall not be converted to a material transfer device (vertical reciprocating conveyor) without meeting the requirements of ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 8.6.5.8, Safety Bulkhead. A material transfer device shall comply with ASME ~~B20.1-2003~~ B20.1-2009.

Subp. 10. **All work required for compliance with ASME ~~A17.3-2002 2.7.4~~ A17.3-2011 2.7.5 Restricted Opening of Hoistway Doors and Car Doors on Passenger Elevators.** All work required for compliance with ASME ~~A17.3-2002 2.7.4 must~~ A17.3-2011 2.7.5 shall be completed within 60 months of January 29, 2007. Failure to complete the work within the required time period will result in the elevator being removed from service until such work has been completed.

Subp. 11. **All work required for compliance with ASME ~~A17.3-2002~~ A17.3-2011 3.11.3 Firefighter's Service.** All work required for compliance with ASME ~~A17.3-2002~~ A17.3-2011 3.11.3 ~~must~~ shall be completed within 60 months of January 29, 2007. Failure to complete the work within the required time period will result in the elevator being removed from service until such work has been completed.

Exception: Existing elevators with Phase ~~one~~ I emergency recall installed without Phase ~~two firefighters~~ II fire service on the original installation may remain in operation without the addition of Phase ~~two~~ II fire service where there is travel from the designated level of less than 35 feet. For such elevators with a travel of more than 25 feet from the designated level, to be exempt from the requirement for Phase ~~two~~ II fire service, recall of the elevator shall be from the smoke detector at each elevator landing, the elevator equipment room, and the elevator key switch at the designated landing.

Subp. 12. **All work required for compliance with ASME ~~A17.3-2002~~ A17.3-2011 4.3.3 Hydraulic Elevators.** All work required for compliance with ASME ~~A17.3-2002~~ A17.3-2011 4.3.3 ~~must~~ shall be completed within 60 months of January 29, 2007. Failure

to complete the work within the required time period will result in the elevator being removed from service until such work has been completed.

Starting 12 months after January 29, 2007, until the elevator complies with ASME ~~A17.3-2002~~ A17.3-2011 4.3.3, the owner or owner's agent ~~must~~ shall submit annually on a notarized statement that an oil usage log is being properly utilized by the owner or owner's agent or elevator maintenance company and that the elevator has successfully passed annual tests required by ASME ~~A17.1-2004 8.11.3.2.1~~ A17.1/CSA B44-2010 8.6.5.14.1 and ~~8.11.3.2.2~~ 8.6.5.14.2. A copy of the test report shall be included with the statement.

Subp. 13. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 8.10.4.1.1(p)(5) Clearance between step and skirt (load gap) and ASME ~~A17.1-2004~~ A17.1/CSA B44-2010. 8.10.4.1.1(t) step/skirt index.** Where an existing escalator or moving walk requires alteration to comply with ASME ~~A17.1-2004 6.1.3.3.7~~ A17.1/CSA B44-2010 6.1.3.3.9 and ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 8.6.8.3, all work ~~must~~ shall be completed within 36 months of January 29, 2007. This 36-month period to achieve compliance only applies to those escalators that fail to meet the test requirements of the referenced rule. Failure to complete the required work within the applicable time period will result in the escalators being removed from service until such work has been completed.

Subp. 14. **ASME ~~A17.3-2002~~ A17.3-2011 5.1.11 Step/skirt performance index.** Where an existing escalator requires alteration to comply with ASME ~~A17.3-2002~~ A17.3-2011 5.1.11, all work ~~must~~ shall be completed within 36 months of January 29, 2007. This 36-month period to achieve compliance only applies to those escalators that fail to meet the test requirements of the referenced rule. Failure to complete the required work within the applicable time period will result in the escalators being removed from service until such work has been completed.

Subp. 15. **ASME ~~A17.3-2002~~ A17.3-2011 2.2.4 Temperature control.** Machine rooms shall be provided with natural or mechanical means to avoid overheating of the electrical equipment and to ensure safe and normal operation of the elevator.

Subp. 16. **Newly constructed parking ramps or new construction in an existing parking ramp.** ~~Elevators installed in newly constructed parking ramps or new construction in an existing parking ramp shall be installed so safe operating temperature for people and elevator equipment is maintained.~~ Newly constructed and altered elevator hoistways in parking ramps shall maintain a conditioned temperature between 50 and 90 degrees F.

1307.0067 AMENDMENTS TO ASME ~~A17.1-2004~~ A17.1/CSA B44-2010.

Subpart 1. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.2.2.4.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.2.2.4 is amended by adding a paragraph to read as follows:

An elevator pit drain ~~must~~ shall discharge to the sanitary sewer using an indirect connection that precludes the possibility of sewage backup into the pit. If a sump is used, it ~~must~~ shall be located outside the pit with a dry pan drain flowing to it. The sump for the elevator pit drain ~~must~~ shall not be located in the elevator machine room.

Subp. 2. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.5.1.1 Between car and hoistway enclosures.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.5.1.1 is amended to read as follows:

2.5.1.1. Between car and hoistway enclosures. The clearance between the car and the hoistway enclosures shall not be less than 0.8 inches (20 mm), except on the sides used for loading and unloading. The distance between the car and the hydraulic piping, hydraulic fittings, electrical piping, electrical boxes, steam or hot water piping where permitted, sprinkler piping, where permitted, or any other item not by elevator design shall not be less than 0.8 inches (20 mm).

Subp. 3. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.7.3.1 General requirements.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.7.3.1 is amended by adding ~~a sentence at the end of the section as follows~~ the following:

2.7.3.1.3 Access to elevator equipment space as referenced in 2.7.3.1.1 and 2.7.3.1.2 shall not be through any toilet room.

Subp. 4. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.7.4.1.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.7.4.1 is amended by adding a sentence to the end of the section as follows:

Raised surfaces intended as working space surrounding equipment shall have 72 inches clear headroom measured from the working surface.

Subp. 5. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.12.6.2.5.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.12.6.2.5 is amended to read as follows:

The unlocking-device keyway and locked panel (see ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.12.6.2.3) if provided, shall be located at a height not greater than 83 inches (2100 mm) above the landing and all keyways, with the exception of the keyway at the bottom landing and all private residence elevator keyways, shall have keyed plugs installed with the key for those plugs kept in the key box as defined in subpart 9.

Subp. 6. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.12.7.1.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.12.7.1 is amended to read as follows:

2.12.7.1.1 Hoistway access switches shall be provided when the rate of speed is greater than 30 ft./min. at:

A. the lowest landing for access to the pit, when a separate access door is not provided; and

B. the top landing for access to the top of the car.

Subp. 7. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.12.7.1.2.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.12.7.1.2 is deleted in its entirety.

Subp. 8. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.14.7.1.4.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.14.7.1.4 is amended to read as follows:

Each elevator shall be provided with an electric light that includes an ~~OSHA-approved~~ OSHA-recognized guard and a GFCI convenience outlet fixture on both the car top and the bottom of the car.

Subp. 9. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.27 Emergency operation and signaling devices.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.27 is amended by adding the following language at the beginning of section 2.27.8:

2.27.8 Switch keys. The key switches required by ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.27.2 ~~through~~ to 2.27.5 for elevators in a building shall be operable by the same key. The keys shall be a Group 3 Security (see section 8.1). There shall be a key for each switch provided. Keys shall be painted or marked red.

These keys shall be kept on premises, in a key box labeled "Fire Dept" approved by the authority having jurisdiction. The key box shall be located in the elevator lobby, on the main egress floor or in the fire command room. When there is not a fire command room and site conditions prohibit installation at the elevator lobby, the authority having jurisdiction shall specify the location of the Fire Dept key box. Keys for emergency access doors (2.11.1.2) and hoistway door unlocking device (2.12.6.2.4) of Group 1 shall be accessible to emergency personnel and a set shall be included in the elevator emergency key box.

Where applicable, Groups 1, 2, and 3 (see section 8.1) security shall be provided in a separate black trimmed key box approved by the authority having jurisdiction. The key box shall be labeled "Elevator Personnel Only" located in the elevator machine room or location

specified by the authority having jurisdiction. Keys shall be tagged and labeled. The locked cylinder shall be uniformly keyed throughout the state.

Subp. 10. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.27.1.1.3(a).** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.27.1.1.3(a) is deleted in its entirety.

Subp. 11. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 3.28.1 Information included on layout drawing.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 3.28.1 is amended by adding the following subitem:

(p) the method used to comply with 3.18.3.8 (protection of cylinders buried in the ground).

Subp. 12. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 4.3.15 Car safeties.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 4.3.15 is amended by adding a sentence to read as follows:

All hand-powered elevators ~~must~~ shall be equipped with a broken rope safety device.

Subp. 13. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 7.2.4.6 Application of safeties.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 7.2.4.6 is amended by adding a sentence at the end of the section as follows:

All hand-powered dumbwaiters ~~must~~ shall be equipped with a broken rope safety device.

Subp. 14. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 8.10.1.1.3.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 8.10.1.1.3 is deleted and replaced with the following:

Elevator inspector qualifications. Inspectors shall have one of the following current electrical licenses: master elevator constructor, elevator constructor, class A master, or a class A journeyman issued by the Department of Labor and Industry.

Inspectors shall have proof of successful completion of the National Elevator Industry Education program examination, equivalent program, or equivalent experience. Within 18 months of the employment start date, any person performing inspections ~~hired after January 29, 2007, shall be certified by an ASME accredited organization as a qualified elevator inspector (QEI) within 18 months of the employment start date.~~ shall be certified to the ASME QEI-1 standard as a qualified elevator inspector (QEI) by an organization recognized by the commissioner. Upon initial certification, persons performing inspections shall maintain the QEI certification.

Subp. 15. **ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 8.11.1.3 Periodic inspection and test frequency.** ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 8.11.1.3 Periodic inspection and test frequency. The frequency as established by the authority having jurisdiction shall be as stated in the Minnesota Table N-1.

MINNESOTA TABLE N-1

INSPECTION AND TEST INTERVALS IN "MONTHS"

				Periodic Tests	
		Periodic Inspections		Category 1	
Reference Section	Equipment Type	Requirement	Interval	Requirement	Interval
8.11.2	Electric elevators	8.11.2.1	12	~~8.11.2.2~~ 8.6.4.19	12
8.11.3	Hydraulic elevators	8.11.3.1	12	~~8.11.3.2~~ 8.6.5.14	12
8.11.4	Escalators & moving walks	8.11.4.1	12	~~8.11.4.2~~ 8.6.8.15	12
8.11.5.1	Sidewalk elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.2, 8.11.3.2~~ 8.6.4.19, 8.6.5.14	12

8.11.5.3	Hand elevators	8.11.2.1	12	~~8.11.2.2~~ 8.6.4.19	12
8.11.5.4	Dumbwaiters	8.11.2.1, 8.11.3.1	12	~~8.11.2.2,~~ ~~8.11.3.2~~ 8.6.4.19, 8.6.5.14	12
8.11.5.5	Material lifts & dumbwaiters w/automatic transfer devices	8.11.2.1, 8.11.3.1	12	~~8.11.2.2,~~ ~~8.11.3.2~~ 8.6.4.19, 8.6.5.14	12
8.11.5.6	Special purpose ~~personal~~ personnel elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.2,~~ ~~8.11.3.2~~ 8.6.4.19, 8.6.5.14	12
8.11.5.7	Inclined elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.2,~~ ~~8.11.3.2~~ 8.6.4.19, 8.6.5.14	12
8.11.5.8	Shipboard elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.2,~~ ~~8.11.3.2~~ 8.6.4.19, 8.6.5.14	12
8.11.5.9	Screw-column elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.2,~~ ~~8.11.3.2~~ 8.6.4.19, 8.6.5.14	12
8.11.5.10	Rooftop elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.2,~~ ~~8.11.3.2~~ 8.6.4.19, 8.6.5.14	12
8.11.5.12	Limited use/limited-application elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.2,~~ ~~8.11.3.2~~ 8.6.4.19, 8.6.5.14	12
8.11.5.13	Elevators used for construction	8.11.2.1, 8.11.3.1	3	~~8.11.2.2,~~ ~~8.11.3.2~~	12

				8.6.4.19, 8.6.5.14	
		Periodic Inspections		Periodic Tests Category 3	
Reference Section	Equipment Type	Require-ment	Interval	Require-ment	Interval
8.11.2	Electric elevators	8.11.2.1	12	N/A	N/A
8.11.3	Hydraulic elevators	8.11.3.1	12	~~8.11.3.3~~ 8.6.5.15	60
8.11.4	Escalators & moving walks	8.11.4.1	12	N/A	N/A
8.11.5.1	Sidewalk elevators	8.11.2.1, 8.11.3.1	12	~~8.11.3.3~~ 8.6.5.15	60
8.11.5.3	Hand elevators	8.11.2.1	12	N/A	N/A
8.11.5.4	Dumbwaiters	8.11.2.1, 8.11.3.1	12	~~8.11.3.3~~ 8.6.5.15	60
8.11.5.5	Material lifts & dumbwaiters w/automatic transfer devices	8.11.2.1, 8.11.3.1	12	~~8.11.3.3~~ 8.6.5.15	60
8.11.5.6	Special purpose ~~personal~~ personnel elevators	8.11.2.1, 8.11.3.1	12	~~8.11.3.3~~ 8.6.5.15	60
8.11.5.7	Inclined elevators	8.11.2.1, 8.11.3.1	12	~~8.11.3.3~~ 8.6.5.15	60
8.11.5.8	Shipboard elevators	8.11.2.1, 8.11.3.1	12	~~8.11.3.3~~ 8.6.5.15	60
8.11.5.9	Screw-column elevators	8.11.2.1, 8.11.3.1	12	~~8.11.3.3~~ 8.6.5.15	60
8.11.5.10	Rooftop elevators	8.11.2.1, 8.11.3.1	12	~~8.11.3.3~~ 8.6.5.15	60
8.11.5.12	Limited use/limited-application elevators	8.11.2.1, 8.11.3.1	12	~~8.11.3.3~~ 8.6.5.15	60
8.11.5.13	Elevators used for construction	8.11.2.1, 8.11.3.1	3	~~8.11.3.3~~ 8.6.5.15	60

Reference Section	Equipment Type	Periodic Inspections Requirement	Periodic Inspections Interval	Periodic Tests Category 5 Requirement	Periodic Tests Category 5 Interval
8.11.2	Electric elevators	8.11.2.1	12	~~8.11.2.3~~ 8.6.4.20	60
8.11.3	Hydraulic elevators	8.11.3.1	12	~~8.11.3.4~~ 8.6.5.16	60
8.11.4	Escalators & moving walks	8.11.4.1	12	N/A	N/A
8.11.5.1	Sidewalk elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.3, 8.11.3.4~~ 8.6.4.20, 8.6.5.16	60
8.11.5.3	Hand elevators	8.11.2.1	12	~~8.11.2.3, 8.11.3.4~~ 8.6.4.20, 8.6.5.16	60
8.11.5.4	Dumbwaiters	8.11.2.1, 8.11.3.1	12	~~8.11.2.3, 8.11.3.4~~ 8.6.4.20, 8.6.5.16	60
8.11.5.5	Material lifts & dumbwaiters w/automatic transfer devices	8.11.2.1, 8.11.3.1	12	~~8.11.2.3, 8.11.3.4~~ 8.6.4.20, 8.6.5.16	60
8.11.5.6	Special purpose ~~personal~~ personnel elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.3, 8.11.3.4~~ 8.6.4.20, 8.6.5.16	60
8.11.5.7	Inclined elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.3, 8.11.3.4~~ 8.6.4.20, 8.6.5.16	60

8.11.5.8	Shipboard elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.3, 8.11.3.4~~ 8.6.4.20, 8.6.5.16	60
8.11.5.9	Screw-column elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.3, 8.11.3.4~~ 8.6.4.20, 8.6.5.16	60
8.11.5.10	Rooftop elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.3, 8.11.3.4~~ 8.6.4.20, 8.6.5.16	60
8.11.5.12	Limited use/limited-application elevators	8.11.2.1, 8.11.3.1	12	~~8.11.2.3, 8.11.3.4~~ 8.6.4.20, 8.6.5.16	60
8.11.5.13	Elevators used for construction	8.11.2.1, 8.11.3.1	3	~~8.11.2.3, 8.11.3.4~~ 8.6.4.20, 8.6.5.16	60

GENERAL NOTE: The intervals in this table shall be for periodic tests and inspections. Factors such as the environment, frequency and type of usage, quality of maintenance, etc., related to the equipment should be taken into account by the authority having jurisdiction prior to establishing more frequent inspection and test intervals.

1307.0090 EXISTING INSTALLATIONS.

Subpart 1. [Repealed, 31 SR 935]

Subp. 2. **Conditions for continued operation.** All existing installations of equipment governed by ASME ~~A17.1-2004~~ A17.1/CSA B44-2010, ASME ~~A17.3-2002~~ A17.3-2011, and ASME ~~A90.1-2003~~ A90.1-2009 may be continued in service as long as they are properly maintained and are, in the opinion of the authority having jurisdiction, installed and maintained in a safe condition. The authority having jurisdiction shall order the installation

of the following basic safety devices: automatic noncontact door reopening devices; top of car, under car lights, and pit lights, with ground fault interrupter outlets; pit ladder; emergency door unlocking device; and emergency lock box complying with part 1307.0067, subpart 9. All hand-powered elevators and hand-powered dumbwaiters ~~must~~ shall be equipped with a broken rope safety device. Elevator machine room lighting ~~must~~ shall meet the requirements of ASME ~~A17.1-2004 2.7.5.1~~ A17.1/CSA B44-2010 2.7.9.1 to provide 19 footcandles of illumination at the floor level. The installation of these safety devices does not require compliance with ASME ~~A17.1-2004~~ A17.1/CSA B44-2010.

[For text of subps 3 to 5, see M.R.]

Subp. 6. **Other requirements.** Existing installations covered by subpart 2 ~~must~~ shall conform to the requirements of: ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 Part 1, and 5.10, 8.1, 8.6, 8.7, 8.8, 8.9, 8.10, and 8.11 as amended by this and other sections of this chapter. Alterations ~~must~~ shall conform to the requirements of ASME ~~A17.1-2004~~ A17.1/CSA B44-2010, Part ~~8.6~~ 8.7, or ASME ~~A17.3-2002~~ A17.3-2011, whichever is more restrictive.

[For text of subp 7, see M.R.]

Subp. 8. **Removal of existing elevators, dumbwaiters, escalators and moving walks.**

A. **Traction elevator.** Prior to a new installation, elevator personnel ~~must~~ shall remove all elevator-related equipment, that will not be reused on the new installation. If removal of the ~~unit~~ equipment is part of building demolition or the hoistway is not reused for elevator equipment, elevator personnel ~~must~~ shall remove the ~~unit~~ equipment from service by safely landing the elevator and counterweights at the lowest landing.

[For text of item B, see M.R.]

C. **Dumbwaiters.** Prior to new installation, elevator personnel shall remove all dumbwaiter-related equipment that will not be reused on the new installation. If removal of the equipment is part of building demolition or the hoistway is not reused for dumbwaiter

equipment, elevator personnel shall remove the equipment from service by safely landing the dumbwaiter and counterweights at the lowest landing.

D. **Escalators and moving walks.** Prior to a new installation, elevator personnel shall remove all escalator or moving walk-related equipment that will not be reused on the new installation. If removal of the equipment is part of building demolition, elevator personnel shall remove the unit from service by safely removing power and permanently securing the steps and drive chains to prevent unintentional motion of the escalator or moving walk.

~~C.~~ E. **Dormant elevator, dormant dumbwaiter, or dormant escalator.** A dormant elevator, dormant dumbwaiter, or dormant escalator shall be placed out of service in accordance with ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 8.11.1.4.

~~D.~~ F. **Temporarily dormant elevator, temporarily dormant dumbwaiter, or temporarily dormant escalator.** A temporarily dormant elevator, temporarily dormant dumbwaiter, or temporarily dormant escalator shall have its power disconnected by removing fuses, where applicable, and placing a seal on the mainline disconnect switch in the "OFF" position. The car shall be parked and the hoistway doors left in the closed and latched position. A wire seal and notification shall be installed on the mainline disconnect switch by an authority having jurisdiction. This installation shall not be used until it has been put in safe running order and is in condition for use. Annual inspections shall continue for the duration of the temporarily dormant status by an authority having jurisdiction. The temporarily dormant status shall be reviewed on an annual basis, and shall not exceed a three-year period. The inspector shall file a report with the supervising authority having jurisdiction describing the current conditions. The wire seal and notification shall not be removed for any purpose without permission from the authority having jurisdiction. When the elevator, dumbwaiter, or escalator has exceeded the three-year temporarily dormant

status, the unit shall be placed out of service according to ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 8.11.1.4.

1307.0095 CHAPTER 30 OF THE INTERNATIONAL BUILDING CODE; ELEVATORS AND CONVEYING SYSTEMS.

Subpart 1. **IBC section 3001, General.** ~~IBC~~ Section 3001 is amended to read as follows:

A. **3001.1 Scope.** This chapter governs the design, construction, installation, alteration, and repair of elevators and conveying systems and their components.

B. **3001.2 Referenced standards.** Except as otherwise provided by applicable law, the design, construction, installation, alteration, repair, and maintenance of elevators and conveying systems and their components shall conform to Minnesota Rules, chapter 1307.

C. **3001.3 Accessibility.** Passenger elevators required to be accessible by the ~~2006~~ 2012 IBC, Chapter 11, shall conform to Minnesota Rules, chapter 1341.

D. **3001.4 Change in use.** A change in use of an elevator from freight to passenger, passenger to freight, or from one freight class to another freight class shall comply with Minnesota Rules, chapter 1307.

Subp. 2. **IBC section 3002, Hoistway enclosures.** ~~IBC~~ Section 3002 is amended to read as follows:

A. **3002.1 Hoistway enclosure protection.** Elevators, dumbwaiters, and other hoistway enclosures shall be shaft enclosures complying with section ~~707~~ 713.

3002.1.1 Opening protectives. Openings in hoistway enclosures shall be protected as required in IBC chapter 7.

Exception: The elevator car doors and the associated hoistway enclosure doors at the floor level designated for recall in accordance with Section 3003.2 shall be permitted to remain open during Phase I Emergency Recall Operation.

3002.1.2 Hardware. Delete this section in its entirety.

B. **3002.2 Number of elevator cars in a hoistway.** Where four or more elevator cars serve all or the same portion of a building, the elevators shall be located in at least two separate hoistways. Not more than four elevator cars shall be located in any single hoistway enclosure.

C. **3002.3 Emergency signs.** An approved pictorial sign of a standardized design shall be posted adjacent to each elevator call station on all floors instructing occupants to use the exit stairways and not to use the elevators in case of fire. The sign shall be as illustrated in ASME ~~A17.1-2004; Appendix O. The emergency sign shall not be required for elevators that are part of an accessible means of egress complying with Section 1007.4~~ A17.1-2010 Figure 2.27.9.

Exceptions:

1. The emergency sign shall not be required for elevators that are part of an accessible means of egress complying with section 1007.4.

2. The emergency sign shall not be required for elevators that are used for occupant self-evacuation in accordance with section 3008.

D. **3002.4 Elevator car to accommodate ambulance stretcher.** Where elevators are provided in buildings four or more stories above grade plane or four or more stories below grade plane, at least one elevator shall be provided for fire department emergency access to all floors. The elevator car shall be of such a size and arrangement to accommodate ~~a 24-inch by 84-inch~~ an ambulance stretcher 24-inches by 84-inches (610 mm by 2133.5 mm) ~~ambulance stretcher~~ with not less than 5-inch (127 mm) radius corners in the horizontal,

open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall not be less than three inches (76 mm) high and shall be placed inside on both sides of the hoistway door frame.

Exception: When approved by the authority having jurisdiction, passenger elevators to be installed in existing buildings where existing hoistway configuration or technical infeasibility prohibits strict compliance with the minimum inside car size, the minimum inside car area may be reduced to not less than 48 inches by 48 inches.

E. **3002.5 Emergency doors.** Where an elevator is installed in a single blind hoistway or on the outside of a building, there shall be installed in the blind portion of the hoistway or blank face of the building, an emergency door in accordance with ASME ~~A17.1-2004~~ A17.1/CSA B44-2010.

F. **3002.6 Prohibited doors.** Doors, other than hoistway doors, elevator car doors, and smoke control doors, when required, shall be prohibited at the point of access to an elevator car. Smoke control doors shall be:

1. held open during normal operation by a "hold open" device that is activated for closure by fire or smoke sensing devices located in the elevator lobby or its immediate vicinity; and

2. readily openable from the car side without a key, tool, special knowledge, or effort when closed.

G. **3002.7 Common enclosure with stairway.** Elevators shall not be in a common shaft enclosure with a stairway.

H. **3002.8 Glass in elevator enclosures.** Glass in elevator enclosures shall comply with section 2409.1.

Subp. 3. **IBC section 3003, Emergency operations.** ~~IBC~~ Section 3003 is amended to read as follows:

A. **3003.1 Standby power.** In buildings and structures where standby power is required or furnished to operate an elevator, the operation shall be in accordance with sections 3003.1.1 ~~through~~ to 3003.1.4.

3003.1.1 Manual transfer. Standby power shall be manually transferable to all elevators in each bank.

3003.1.2 One elevator. Where only one elevator is installed, the elevator shall automatically transfer to standby power within 60 seconds after failure of normal power.

3003.1.3 Two or more elevators. Where two or more elevators are controlled by a common operating system, all elevators shall automatically transfer to standby power within 60 seconds after failure of normal power where the standby power source is of sufficient capacity to operate all elevators at the same time. Where the standby power source is not of sufficient capacity to operate all elevators at the same time, the elevators shall operate according to ASME ~~A17.1-2004~~ A17.1/CSA B44-2010 2.27.2.

3003.1.4 Venting. Where standby power is connected to elevators, machine room ventilation or air conditioning, if provided, shall be connected to the standby power source.

B. **3003.2 Firefighters' emergency operation.** Elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME ~~A17.1-2004~~ A17.1/CSA B44-2010.

C. **3003.3 Standardized fire service elevator keys.** All elevators shall be equipped to operate with a standardized fire service elevator key in accordance with the International Fire Code.

Subp. 4. **IBC section 3004, Hoistway venting.** ~~IBC~~ Section 3004 is amended to read as follows:

A. **3004.1 Vents required.** Hoistways of elevators and dumbwaiters having a travel of 25 feet or more shall be provided with a means for venting smoke and hot gases to the outer air in case of fire.

Exceptions:

1. In occupancies of other than Groups R-1, R-2, I-1, I-2, as defined in Minnesota Rules, chapter 1305, and similar occupancies with overnight sleeping quarters, venting of hoistways is not required when the building is equipped throughout with an approved automatic sprinkler system installed in accordance with the 2006 International Building Code, section 903.3.1.1 or 903.3.1.2 and similar local codes.

2. Sidewalk elevator hoistways are not required to be vented.

3. Elevators contained within and serving open parking garages only.

4. Elevators within individual residential dwelling units.

B. **3004.2 Location of vents.** Vents shall be located directly (directly is defined as being as close as technically possible to the top of the hoistway including the supporting structures located at the top of the hoistway) below the top of the hoistway and shall be open either directly to the outer air or through noncombustible ducts to the outer air. Noncombustible ducts shall be permitted to pass through the elevator machine room provided the portions of the ducts located outside the hoistway or machine room are enclosed by construction having not less than the fire protection rating required for the hoistway. Holes in the machine room floors for the passage of ropes, cables, or other moving elevator equipment shall be limited so as not to provide greater than ~~two~~ 2 inches (51 mm) of clearance on all sides.

1. Protective grilles ~~must~~ shall be installed at vent openings in the top of the hoistway to prevent people from falling into the hoistway. The protective grilles ~~must~~ shall be securely mounted to the building structure.

2. Interconnection of separate hoistways for the purpose of venting is prohibited.

3. Vents ~~must~~ shall be operated by a keyed manual remote device and equipped with a remote visual LED-type indicator device for indicating the full open position.

a. The indicator device shall be activated by a device having a direct mechanical connection to vent shutters.

b. The keyed manual remote control device shall have two positions: vent closed and vent open. The markings for both positions shall be permanent. The key shall be removable only in the closed position.

c. The keyed manual remote control device ~~must~~ shall be located adjacent to the fire control panel, if provided, or in the elevator lobby of a designated floor. The designated floor shall be approved by the authority having jurisdiction.

d. The keyed manual remote control device may not be co-located with any operating devices for the elevators.

C. **3004.3 Area of vents.** Except as provided for in section 3004.3.1, the area of the vents shall not be less than 3-1/2 percent of the area of the hoistway nor less than ~~three~~ 3 square feet (0.28 m^2) for each elevator car and not less than 3-1/2 percent nor less than 0.5 square foot (0.047 m^2) for each dumbwaiter car in the hoistway, whichever is greater.

3004.3.1 Reduced vent area. Where mechanical ventilation conforming to the International Mechanical Code is provided, a reduction in the required vent area is allowed, provided that all of the following conditions are met:

1. The occupancy is not in Group R-1, R-2, I-1, or I-2, as defined in chapter 1305, or of a similar occupancy with overnight sleeping quarters.

2. The vents required by section 3004.2 do not have outside exposure.

3. The hoistway does not extend to the top of the building.

4. The hoistway and machine room exhaust fan is automatically reactivated by thermostatic means.

5. Equivalent venting of the hoistway is accomplished.

D. **3004.4 Plumbing and mechanical systems.** Delete this section in its entirety.

Subp. 5. **IBC section 3005, Conveying systems.** ~~IBC~~ Section 3005 is amended to read as follows:

A. **3005.1 General.** Escalators, moving walks, conveyors, personnel hoists, and material hoists shall comply with Minnesota Rules, chapter 1307.

B. **3005.2 Escalators and moving walks.** Escalators and moving walks shall be constructed of approved noncombustible and fire-retardant materials. This requirement shall not apply to electrical equipment, wiring, wheels, handrails, and the use of 1/28-inch (0.9 mm) wood veneers on balustrades backed up with noncombustible materials.

3005.2.1 Enclosure. Escalator floor openings shall be enclosed with shaft enclosures complying with section ~~707~~ 713.

3005.2.2 Escalators. Where provided in below-grade transportation stations, escalators shall have a clear width of 32 inches (815 mm) minimum.

Exception: The clear width is not required in existing facilities undergoing alterations.

C. **3005.3 Conveyors.** Conveyors and conveying systems shall comply with ASME ~~B20.1-2003~~ B20.1-2009.

3005.3.1 Enclosure. Conveyors and related equipment connecting successive floors or levels shall be enclosed with shaft enclosures complying with section ~~707~~ 713.

3005.3.2 Conveyor safeties. Power-operated conveyors, belts, and other material-moving devices shall be equipped with automatic limit switches that will shut off the power in an emergency and automatically stop all operation of the device.

D. **3005.4 Personnel and material hoists.** Personnel and material hoists shall be designed utilizing an approved method that accounts for the conditions imposed during the intended operation of the hoist device. The design shall include, but is not limited to, anticipated loads, structural stability, impact, vibration, stresses, and seismic restraint. The design shall account for the construction, installation, operation, and inspection of the hoist tower, car, machinery and control equipment, guide members, and hoisting mechanism. Additionally, the design of personnel hoists shall include provisions for field testing and maintenance that will demonstrate that the hoist device functions in accordance with the design. Field tests shall be conducted upon the completion of an installation or following a major alteration of a personnel hoist.

Subp. 6. **IBC section 3006, Machine rooms.** ~~IBC~~ Section 3006 is amended to read as follows:

A. **3006.1 Access.** An approved means of access shall be provided to elevator machine rooms and overhead machinery spaces.

B. **3006.2 Venting.** Delete this section in its entirety.

C. **3006.3 Pressurization.** The elevator machine room serving a pressurized elevator hoistway shall be pressurized upon activation of a heat or smoke detector located in the elevator machine room.

D. **3006.4 Machine rooms and machinery spaces.** Elevator machine rooms and machinery spaces shall be enclosed with ~~construction having a fire-resistance rating not less than the required rating of the hoistway enclosure served by the machinery. Openings shall be protected with assemblies having a fire-resistance rating not less than that required for the hoistway enclosure doors.~~ fire barriers constructed in accordance with section 707 or horizontal assemblies constructed in accordance with section 711, or both. The fire-resistance rating shall be not less than the required rating of the hoistway enclosure

served by the machinery. Openings in the fire barriers shall be protected with assemblies having a fire protection rating not less than that required for the hoistway enclosure doors.

Exceptions:

1. Where machine rooms and machinery spaces do not abut and have no openings to the hoistway enclosure they serve, the fire barriers constructed in accordance with section 707 or horizontal assemblies constructed in accordance with section 711, or both, shall be permitted to be reduced to a one-hour fire-resistance rating.

2. In buildings four stories or less above grade plane where machine room and machinery spaces do not abut and have no openings to the hoistway enclosure they serve, the machine room and machinery spaces are not required to be fire-resistance rated.

E. **3006.5 Shunt trip.** Delete this section in its entirety.

F. **3006.6 Plumbing systems.** Delete this section in its entirety.

Subp. 7. **IBC section 3007, Fire service access elevator.**

A. **3007.1 General.** Where required by section 403.6.1, every floor of the building shall be served by fire service access elevators complying with sections 3007.1 to 3007.10. Except as modified in this section, fire service access elevators shall be installed in accordance with this rule chapter and ASME A17.1/CSA B44-2010.

B. **3007.2 Phase I emergency recall operation.** Actuation of any building fire alarm-initiating device shall initiate Phase I emergency recall operation on all fire service access elevators in accordance with the requirements in ASME A17.1/CSA B44-2010. All other elevators shall remain in normal service unless Phase I emergency recall operation is manually initiated by a separate, required three-position, key-operated "Fire Recall" switch or automatically initiated by the associated elevator lobby, hoistway, or elevator machine room smoke detectors. In addition, if the building also contains occupant evacuation elevators in accordance with section 3008, an independent, three-position, key-operated "Fire Recall"

switch conforming to the applicable requirements in ASME A17.1/CSA B44-2010 shall be provided at the designated level for each fire service access elevator.

C. **3007.3 Automatic sprinkler system.** The building shall be equipped throughout with an automatic sprinkler system in accordance with section 903.3.1.1, except as otherwise permitted by section 903.3.1.1.1 and as prohibited by section 3007.3.1.

3007.3.1 Prohibited locations. Automatic sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, or elevator hoistways of fire service access elevators.

3007.3.2 Sprinkler system monitoring. The sprinkler system shall have a sprinkler control valve supervisory switch and waterflow-initiating device provided for each floor that is monitored by the building's fire alarm system.

D. **3007.4 Water protection.** An approved method to prevent water from infiltrating into the hoistway enclosure from the operation of the automatic sprinkler system outside the enclosed fire service access elevator lobby shall be provided.

E. **3007.5 Shunt trip.** Means for elevator shutdown in accordance with section 3006.5 shall not be installed on elevator systems used for fire service access elevators.

F. **3007.6 Hoistway enclosures.** The fire service access elevator hoistway shall be located in a shaft enclosure complying with section 708.

3007.6.1 Structural integrity of hoistway enclosures. The fire service access elevator hoistway enclosure shall comply with sections 403.2.3.1 to 403.2.3.4.

3007.6.2 Hoistway lighting. When firefighters' emergency operation is active, the entire height of the hoistway shall be illuminated at not less than one footcandle (11 lux) as measured from the top of the car of each fire service access elevator.

G. **3007.7 Fire service access elevator lobby.** The fire service access elevator shall open into a fire service access elevator lobby in accordance with sections 3007.7.1 to 3007.7.5.

Exception: Where a fire service access elevator has two entrances onto a floor, the second entrance shall be permitted to open into an elevator lobby in accordance with section 708.14.1.

3007.7.1 Access. The fire service access elevator lobby shall have direct access to an enclosure for an interior exit stairway.

3007.7.2 Lobby enclosure. The fire service access elevator lobby shall be enclosed with a smoke barrier having a fire-resistance rating of not less than one hour, except that lobby doorways shall comply with section 3007.7.3.

Exception: Enclosed fire service access elevator lobbies are not required at the levels of exit discharge.

3007.7.3 Lobby doorways. Other than the door to the hoistway, each doorway to a fire service access elevator lobby shall be provided with a 3/4-hour fire door assembly complying with section 716.5. The fire door assembly shall also comply with the smoke and draft control door assembly requirements of section 716.5.3.1 with the UL 1784 test conducted without the artificial bottom seal.

3007.7.4 lobby size. Each enclosed fire service access elevator lobby shall be not less than 150 square feet (14 m^2) in an area with a minimum dimension of 8 feet (2440 mm).

3007.7.5 Fire service access elevator symbol. A pictorial symbol of a standardized design designating which elevators are fire service access elevators shall be installed on each side of the hoistway door frame on the portion of the frame at right angles to the fire service access elevator lobby. The fire service access elevator symbol shall be designed as shown in Figure 3007.7.5 and shall comply with the following:

1. The fire service access elevator symbol shall be not less than 3 inches (76 mm) in height.

2. The vertical center line of the fire service access elevator symbol shall be centered on the hoistway door frame. Each symbol shall not be less than 78 inches (1981 mm), and not more than 84 inches (2134 mm) above the finished floor at the threshold.

H. **3007.8 Elevator system monitoring.** The fire service access elevator shall be continuously monitored at the fire command center by a standard emergency service interface system meeting the requirements of NFPA 72.

I. **3007.9 Electrical power.** The following features serving each fire service access elevator shall be supplied by both normal power and Type 60/Class 2/Level 1 standby power:

1. Elevator equipment.

2. Elevator hoistway lighting.

3. Elevator machine room ventilation and cooling equipment.

4. Elevator controller cooling equipment.

3007.9.1 Protection of wiring or cables. Wires or cables that are located outside of the elevator hoistway and machine room and that provide normal or standby power, control signals, communication with the car, lighting, heating, air conditioning, ventilation and fire-detecting systems to fire service access elevators shall be protected by construction having a fire-resistance rating of not less than two hours, or shall be circuit integrity cable having a fire-resistance rating of not less than two hours.

Exception: Wiring and cables to control signals are not required to be protected provided that wiring and cable do not serve Phase II emergency in-car operations.

J. **3007.10 Standpipe hose connection.** A Class I standpipe hose connection in accordance with section 905 shall be provided in the interior exit stairway and ramp having direct access from the fire service access elevator lobby.

Subp. 8. **IBC section 3008, Occupant evacuation elevators.**

A. **3008.1 General.** Where elevators are to be used for occupant self-evacuation during fires, all passenger elevators for general public use shall comply with section 3008.1 to 3008.11. Where other elevators are used for occupant self-evacuation, they shall also comply with these sections.

3008.1.1 Additional exit stairway. Where an additional means of egress is required in accordance with section 403.5.2, an additional exit stairway shall not be required to be installed in buildings provided with occupant evacuation elevators complying with section 3008.1.

3008.1.2 Fire safety and evacuation plan. The building shall have an approved fire safety and evacuation plan in accordance with the applicable requirements of section 404 of the International Fire Code. The fire safety and evacuation plan shall incorporate specific procedures for the occupants using evacuation elevators.

B. **3008.2 Phase I emergency recall operation.** An independent, three-position, key-operated "Fire Recall" switch complying with ASME A17.1/CSA B44-2010 shall be provided at the designated level for each occupant evacuation elevator.

3008.2.1 Operation. The occupant evacuation elevators shall be used for occupant self-evacuation only in the normal elevator operating mode prior to Phase I emergency recall operation in accordance with the requirements in ASME A17.1/CSA B44-2010 and the building's fire safety and evacuation plan.

3008.2.2 Activation. Occupant evacuation elevator systems shall be activated by any of the following:

1. The operation of an automatic sprinkler system complying with section 3008.3.

2. Smoke detectors required by another provision of the code.

3. Approved manual controls.

C. **3008.3 Automatic sprinkler system.** The building shall be protected throughout by an approved, electrically supervised automatic sprinkler system in accordance with section 903.3.1.1, except as otherwise permitted by section 903.3.1.1.1 and as prohibited by section 3008.3.1.

3008.3.1 Prohibited locations. Automatic sprinklers shall not be installed in elevator machine rooms and elevator machine spaces for occupant evacuation elevators.

3008.3.2 Sprinkler system monitoring. The sprinkler system shall have a sprinkler control valve supervisory switch and water flow-initiating device provided for each floor that is monitored by the building's fire alarm system.

D. **3008.4 Water protection.** An approved method to prevent water from infiltrating into the hoistway enclosure from the operation of the automatic sprinkler system outside the enclosed occupant evacuation elevator lobby shall be provided.

E. **3008.5 Shunt trip.** Means for elevator shutdown in accordance with section 3006.5 shall not be installed on elevator systems used for occupant evacuation elevators.

F. **3008.6 Hoistway enclosure protection.** Occupant evacuation elevator hoistways shall be located in shaft enclosures complying with section 713.

3008.6.1 Structural integrity of hoistway enclosures. Occupant evacuation elevator hoistway enclosures shall comply with sections 403.2.3.1 to 403.2.3.4.

G. **3008.7 Occupant evacuation elevator lobby.** The occupant evacuation elevators shall open into an elevator lobby in accordance with sections 3008.7.1 to 3008.7.7.

3008.7.1 Access. The occupant evacuation elevator lobby shall have direct access to an interior exit stairway or ramp.

3008.7.2 Lobby enclosure. The occupant evacuation elevator lobby shall be enclosed with a smoke barrier having a fire-resistance rating of not less than one hour, except that lobby doorways shall comply with section 3008.7.3.

Exception: Enclosed occupant evacuation elevator lobbies are not required at the levels of exit discharge.

3008.7.3 Lobby doorways. Other than the door to the hoistway, each doorway to an occupant evacuation elevator lobby shall be provided with a 3/4-hour fire door assembly complying with section 716.5. The fire door assembly shall also comply with the smoke and draft control assembly requirements of section 716.5.3.1 with the UL 1784 test conducted without the artificial bottom seal.

3008.7.3.1 Vision panel. A vision panel shall be installed in each fire door assembly protecting the lobby doorway. The vision panel shall consist of fire-protection-rated glazing and shall be located to furnish clear vision of the occupant evacuation elevator lobby.

3008.7.3.2 Door closing. Each fire door assembly protecting the lobby doorway shall be automatic-closing upon receipt of any fire alarm signal from the emergency voice/alarm communication system serving the building.

3008.7.4 Lobby size. Each occupant evacuation elevator lobby shall have minimum floor area as follows:

1. The occupant evacuation elevator lobby floor area shall accommodate, at 3 square feet (0.28 m^2) per person, not less than 25 percent of the occupant load of the floor area served by the lobby.

2. The occupant evacuation elevator lobby floor area also shall accommodate one wheelchair space of 30 inches by 48 inches (760 mm by 1220 mm) for each 50 persons, or portion thereof, of the occupant load of the floor area served by the lobby.

Exception: The size of lobbies serving multiple banks of elevators shall have the minimum floor area approved on an individual basis and shall be consistent with the building's fire safety and evacuation plan.

3008.7.5 Signage. An approved sign indicating elevators are suitable for occupant self-evacuation shall be posted on all floors adjacent to each elevator call station servicing occupant evacuation elevators.

3008.7.6 Lobby status indicator. Each occupant evacuation elevator lobby shall be equipped with a status indicator arranged to display all of the following information:

1. An illuminated green light and the message "Elevators available for occupant evacuation." when the elevators are operating in normal service and the fire alarm system is indicating an alarm in the building.

2. An illuminated red light and the message "Elevators out of service, use exit stairs." when the elevators are in Phase I emergency recall operation in accordance with the requirements in ASME A17.1/CSA B44-2010.

3. No illuminated light or message when the elevators are operating in normal service.

3008.7.7 Two-way communication system. A two-way communication system shall be provided in each occupant evacuation elevator lobby for the purpose of initiating communication with the fire command center or an alternate location approved by the fire department.

3008.7.7.1 Design and installation. The two-way communication system shall include audible and visible signals and shall be designed and installed in accordance with the requirements in ICC A117.1.

3008.7.7.2 Instructions. Instructions for the use of the two-way communication system along with the location of the station shall be permanently located adjacent to each station. Signage shall comply with the ICC A117.1 requirements for visual characters.

H. **3008.8 Elevator system monitoring.** The occupant evacuation elevators shall be continuously monitored at the fire command center or a central control point approved by the fire department and arranged to display all of the following information:

1. Floor location of each elevator car.

2. Direction of travel of each elevator car.

3. Status of each elevator car with respect to whether it is occupied.

4. Status of normal power to the elevator equipment, elevator controller cooling equipment, and the elevator machine room ventilation and cooling equipment.

5. Status of standby or emergency power system that provides backup power to the elevator equipment, elevator controller cooling equipment, and elevator machine room ventilation and cooling equipment.

6. Activation of any fire alarm initiating device in any elevator lobby, elevator machine room or machine space, or elevator hoistway.

3008.8.1 Elevator recall. The fire command center or an alternate location approved by the fire department shall be provided with the means to manually initiate a Phase I emergency recall of the occupant evacuation elevators in accordance with ASME A17.1/CSA B44-2010.

I. **3008.9 Electrical power.** The following features serving each occupant evacuation elevator shall be supplied by both normal power and Type 60/Class 2/Level 1 standby power:

1. Elevator equipment.

2. Elevator machine room ventilation and cooling equipment.

3. Elevator controller cooling equipment.

3008.9.1 Protection of wiring or cables. Wires or cables that are located outside of the elevator hoistway and machine room and that provide normal or standby power, control signals, communication with the car, lighting, heating, air conditioning, ventilation, and fire-detecting systems to fire service access elevators shall be protected by construction having a fire-resistance rating of not less than two hours, or shall be circuit integrity cable having a fire-resistance rating of not less than two hours.

Exception: Wiring and cables to control signals are not required to be protected provided that wiring and cables do not serve Phase II emergency in-car operations.

J. **3008.10 Emergency voice/alarm communication system.** The building shall be provided with an emergency voice/alarm communication system. The emergency voice/alarm communication system shall be accessible to the fire department. The system shall be provided in accordance with section 907.2.12.2.

3008.10.1 Notification appliances. No fewer than one audible and one visible notification appliance shall be installed within each occupant evacuation elevator lobby.

K. **3008.11 Hazardous material areas.** No building areas shall contain hazardous materials exceeding the maximum allowable quantities per control area as addressed in section 414.2.

1307.0110 MINNESOTA AMENDMENTS TO ASME ~~A18.1-2005~~ A18.1-2011.

Subpart 1. **ASME ~~A18.1-2005~~ A18.1-2011 section 2.1 Runways.**

A. ASME ~~A18.1-2005~~ A18.1-2011 2.1.2.5 is amended to read as follows:

2.1.2.5. All doors, except as provided in paragraph 2.1.2.9, shall be provided with a combination mechanical lock and electric contact. Locking devices shall be protected against tampering from the landing side. The locking devices shall permit a door to be opened only

if the platform floor is within ~~two inches~~ 51 mm (~~51 mm~~ 2 inches) of the respective landing. The platform shall be permitted to move away from the landing under control of the normal operating device if the door is closed but not locked, provided that the device will cause the platform to stop if it moves more than ~~two inches~~ 51 mm (~~51 mm~~ 2 inches) away from the landing before the door is locked.

B. ASME ~~A18.1-2005~~ A18.1-2011 2.1.2 Partial runway enclosure provided, is amended by adding a new paragraph 2.1.2.9 to read as follows:

2.1.2.9. Where the lift is installed at a location that does not have guards at the upper landing as allowed by building codes (see definition), the requirements of paragraphs 2.1.2.2, 2.1.2.3, and 2.1.2.4 shall be permitted to be omitted when platform gates are provided. They shall extend to a height at least equal to the top terminal landing height plus ~~six inches~~ 152 mm (~~152 mm~~ 6 inches) measured when the platform is at its lowest position. The gates shall be of unperforated construction, self-closing, and be provided with electric contact to prevent movement of the platform if the gates are not closed. The gates shall not be permanently deformed when a force of ~~125 lbf~~ 556 N (~~556 N~~ 125 lbf) is applied on any ~~four-inch~~ 102 mm (~~102 mm~~ 4 inches) by ~~four-inch~~ 102 mm (~~102 mm~~ 4 inches) area.

C. ASME ~~A18.1-2005~~ A18.1-2011 2.1.2 Partial runway enclosure provided, is amended by adding a new paragraph 2.1.2.10 to read as follows:

2.1.2.10. The clearance between the platform floor and the upper landing sill shall be permitted to be increased to ~~three inches~~ 76 mm (~~76 mm~~ 3 inches) if a platform gate complying with paragraph 2.1.2.9 and an automatically folding ramp to service the upper landing is provided. When deployed, the ramp shall have a minimum overlap at the upper landing sill of ~~two inches~~ 51 mm (~~51 mm~~ 2 inches) and shall be substantially level. It shall be provided with an electric contact, which will stop the movement of the platform within ~~six inches~~ 152 mm (~~152 mm~~ 6 inches) of travel away from the upper landing if the ramp has failed to rise to its retracted position.

D. ASME ~~A18.1-2005~~ A18.1-2011 2.1.3 Runway enclosure not provided.

For purposes of A18.1-2005 section 2 Vertical platform lifts, 2.1.3 is deleted in its entirety. However, as referenced in A18.1-2005 section 5.1 Runways, 2.1.3 remains in full force and effect.

E. ASME ~~A18.1-2005 2.1.5~~ A18.1-2011 2.1.6 Lower level access ramps and pits is amended to read as follows:

~~2.1.5~~ 2.1.6 Lower level across ramps and pits. Lifts shall be permitted to have a pit. Where a pit is not provided, a floor-mounted or retractable platform floor-mounted ramp complying with the requirements for ramps in ICC/ANSI ~~A17.1~~ A117.1 and having a maximum rise of ~~four inches~~ 102 mm (~~100 mm~~ 4 inches) shall be provided. When backing down an incline from the lift platform may be necessary, the slope of the incline shall not exceed ~~one~~ 1 in 20.

F. ASME ~~A18.1-2005 2.1.5.1~~ A18.1-2011 2.1.6.1 is deleted in its entirety.

G. ASME ~~A18.1-2005 2.1.5.2~~ A18.1-2011 2.1.6.2 is deleted in its entirety.

Subp. 2. [See repealer.]

Subp. 3. **ASME ~~A18.1-2005~~ A18.1-2011 section 2.10 Operating devices and control equipment.**

A. ASME ~~A18.1-2005~~ A18.1-2011 2.10.1 Operation is amended to read as follows:

2.10.1 Operation. Operation of the lift from the landings and from the platform shall be controlled by "UP" and "DOWN" control switches at all stations, and shall be by means of the continuous pressure type. Control switches shall be ~~two inches~~ 51 mm (~~50 mm~~ 2 inches) minimum wide and ~~four inches~~ 102 mm (~~100 mm~~ 4 inches) minimum high. Controls shall be ~~48 inches~~ 1219 mm (~~1220 mm~~ 48 inches) maximum and ~~15 inches~~ 381 mm (~~380 mm~~ 15 inches) minimum above the platform floor or facility floor or ground level. Operation

devices shall be designed so that both the "UP" and "DOWN" circuits cannot be operated at the same time.

B. ASME ~~A18.1-2005~~ A18.1-2011 2.10.2.2 is amended to read as follows:

2.10.2.2. The attendant shall operate the platform by means of a continuous pressure switch so located that the attendant has full view of the platform throughout its travel. A manually reset emergency stop switch shall also be provided at that location.

Subp. 4. **ASME ~~A18.1-2005~~ A18.1-2011 section 2.11 Emergency signals.**

A. ASME ~~A18.1-2005~~ A18.1-2011 section 2.11 Emergency signals is amended to read as follows:

2.11 Emergency signals. If the platform is installed in an area not visible or audible to persons at all times, or installed in an enclosed runway, emergency signaling devices shall be provided in accordance with the requirements of paragraphs 2.11.1 and 2.11.2. Standby power shall be provided in accordance with paragraph 2.11.3.

B. ASME ~~A18.1-2005~~ A18.1-2011 2.11.2 is amended to read as follows:

2.11.2. The lift shall be provided with a means of two-way communication complying with ASME ~~A17.1-2004~~ A17.1/CSA B44-2010.

Subp. 5. **ASME ~~A18.1-2005~~ A18.1-2011 section 2.12 Standby power.** ASME ~~A18.1-2005~~ A18.1-2011 section 2.12 Standby power is amended as follows:

2.12 Standby power. ~~Vertical lifts equipped with standby power shall comply with this chapter.~~ In buildings and structures where standby power is required or furnished to operate a vertical lift, the operation shall be in accordance with section 2.12. Lifts not required to provide standby power are not required to be equipped with battery power.

2.12.1 Standby power. Except where permitted by 2.12.1.1, the vertical lift shall be powered by a standby power system from the building.

2.12.1.1 Battery power. A lift equipped with rechargeable battery power capable of cycling the lift under full load for five cycles minimum after building power is removed shall be permitted.

~~**2.12.1.2**~~ **2.12.2 Battery power, rated number of cycles.** Except where permitted by ~~2.12.1.3~~ 2.12.3, where a lift provided with battery power serves an area with more wheelchair users than the rated number of cycles provided by battery power, or where the authority having jurisdiction determines that the anticipated number of wheelchair users is greater than the rated number of cycles provided by battery power, the lift shall be powered by a standby power system from the building.

~~**2.12.1.3**~~ **2.12.3 Existing buildings without standby power.** Where an existing building is not required to provide a building standby power system, the installation of a lift shall not require the installation of a building standby power system. A battery standby power system complying with 2.12.1.1 shall be provided.

~~**2.12.1.4**~~ **2.12.4 Auxiliary items.** Auxiliary items necessary for lift operation such as power doors and runway lighting shall remain operational under standby power.

Subp. 6. **ASME ~~A18.1-2005~~ A18.1-2011 3.6.8 Platform guarding.** ASME ~~A18.1-2005~~ A18.1-2011 3.6.8 Platform guarding is amended to read as follows:

3.6.8 Platform guarding. Platform guarding shall be in accordance with paragraph 3.6.8.1, or, when safety issues are effectively addressed and approved by the authority having jurisdiction, in accordance with paragraph 3.6.8.2.

Subp. 7. **ASME ~~A18.1-2005~~ A18.1-2011 section 3.10.1 Operation.** ASME ~~A18.1-2005~~ A18.1-2011 3.10.1 Operation is amended to read as follows:

3.10.1 Operation. Operation of the lift from the landings and from the platform shall be controlled by ~~"UP" and "DOWN"~~ control switches at all stations, and shall be by means of the continuous pressure type. Control switches shall be ~~two~~ 2 inches (50 mm) minimum

wide and ~~four~~ 4 inches (100 mm) minimum high. Controls shall be 48 inches (1220 mm) maximum and 15 inches (380 mm) minimum above the platform floor or facility floor or ground level. Controls shall be located within forward or side reach of the passenger as defined in ANSI A117.1. Operation devices shall be designed so that both the "UP" and "DOWN" circuits cannot be operated at the same time.

Subp. 8. **ASME ~~A18.1-2005~~ A18.1-2011 section 3.11 Emergency signals.**

A. ASME ~~A18.1-2005~~ A18.1-2011 section 3.11 Emergency signals is amended to read as follows:

3.11 Emergency signals. If the lift is installed in an area not visible or audible to persons at all times, or installed in an enclosed runway, emergency signaling devices shall be provided in accordance with the requirements of paragraphs 3.11.1 and 3.11.2.

B. ASME ~~A18.1-2005~~ A18.1-2011 3.11.2 is amended to read as follows:

ASME 3.11.2. The lift shall be provided with a means of two-way communication complying with ASME ~~A17.1-2004~~ A17.1/CSA B44-2010.

Subp. 9. **ASME ~~A18.1-2005~~ A18.1-2011 section 3.12 Standby power.** ASME ~~A18.1-2005~~ A18.1-2011 section 3.12 Standby power is amended to read as follows:

3.12 Standby power. ~~Inclined lifts equipped with standby power shall comply with this chapter.~~ In buildings and structures where standby power is required or furnished to operate an inclined lift, the operation shall be in accordance with section 3.12. Lifts not required to provide standby power are not required to be equipped with battery power.

3.12.1 Standby power. Except where permitted by paragraph 3.12.1.1, the inclined lift shall be powered by a standby power system from the building.

3.12.1.1 Battery power. A lift equipped with rechargeable battery power capable of cycling the lift under full load for five cycles minimum after building power is removed shall be permitted.

~~**3.12.1.2**~~ **3.12.2 Battery power, rated number of cycles.** Except where permitted by paragraph ~~3.12.1.3~~ 3.12.3, where a lift provided with battery power serves an area with more wheelchair users than the rated number of cycles provided by battery power, or where the authority having jurisdiction determines that the anticipated number of wheelchair users is greater than the rated number of cycles provided by battery power, the lift shall be powered by a standby power system from the building.

~~**3.12.1.3**~~ **3.12.3 Existing buildings without standby power.** Where an existing building is not required to provide a building standby power system, the installation of a lift shall not require the installation of a building standby power system. A battery standby power system complying with 3.12.1.1 shall be provided.

~~**3.12.1.4**~~ **3.12.4 Auxiliary items.** Auxiliary items necessary for lift operation such as power doors and runway lighting shall remain operational under standby power.

Subp. 10. **ASME ~~A18.1-2005 6.1.2~~ A18.1-2011 6.1.1 Clearances.** ASME ~~A18.1-2005 6.1.2~~ A18.1-2011 6.1.1 Clearances is amended to read as follows:

~~**6.1.2**~~ **6.1.1 Clearances.** Clearances between the platform and adjacent surfaces shall not be less than ~~.75 inches~~ 20 mm (~~29 mm~~ .75 inches). At no point in its travel shall the edge of the platform facing the upper landing be more than ~~24 inches~~ 600 mm (~~610 mm~~ 24 inches) above a step or landing as measured vertically. Headroom clearance measured vertically from any position on the platform floor shall be ~~54 inches~~ 1372 mm (~~1370 mm~~ 54 inches) minimum throughout the travel of the platform or alternate methods, approved by the authority having jurisdiction, shall be provided, which will stop the movement of the platform in the direction of travel should the clearance be reduced.

REPEALER. Minnesota Rules, part 1307.0110, subpart 2, is repealed.