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Tony Evers, Governor
Dan Hereth, Secretary

VIRTUAL/TELECONFERENCE
CONVEYANCE SAFETY CODE COUNCIL
Virtual, 4822 Madison Yards Way, Madison
Contact: Will Johnson (608) 266-2112
May 19, 2026

The following agenda describes the issues that the Board plans to consider at the meeting. At the time of the meeting, items may be removed from the agenda. Please consult the meeting minutes for a record of the actions of the Board.

AGENDA

9:00 A.M.

OPEN SESSION – CALL TO ORDER – ROLL CALL

A. Adoption of Agenda (1-2)

B. Approval of Minutes of April 7, 2026 (3)

C. Reminders: Conflicts of Interest, Scheduling Concerns

D. Introduction, Announcements, and Recognition
1) Remembrance: Harold Thurmer, Elevator Manufacturer Member

E. Administrative Matters
1) Department, Staff and Board Updates
2) Council Members
   a. Braun, Andrew
   b. Danowski, David
   c. Lex, Adam
   d. Misustin, Keith
   e. Rausch, Brian
   f. Richards, Brian
   g. Rosenberg, Paul
   h. Sommerfeld, Mark
   i. Whelan, Maiya

F. Administrative Rule Matters – Discussion and Consideration (4-127)
1) Drafting: SPS 302, 305, 316, 318, 321, 362, 366, 381, 382, relating to Conveyance Safety Code comprehensive review
2) Pending and possible rulemaking projects

G. Discussion and Consideration of Items Added After Preparation of Agenda:
1) Introductions, Announcements and Recognition

2) Administrative Matters
3) Election of Officers
4) Appointment of Liaisons and Alternates
5) Delegation of Authorities
6) Education and Examination Matters
7) Credentialing Matters
8) Practice Matters
9) Legislative and Policy Matters
10) Public Health Emergencies
11) Administrative Rule Matters
12) Liaison Reports
13) Board Liaison Training and Appointment of Mentors
14) Informational Items
15) Division of Legal Services and Compliance (DLSC) Matters
16) Presentations of Petitions for Summary Suspension
17) Petitions for Designation of Hearing Examiner
18) Presentation of Stipulations, Final Decisions and Orders
19) Presentation of Proposed Final Decisions and Orders
20) Presentation of Interim Orders
21) Petitions for Re-Hearing
22) Petitions for Assessments
23) Petitions to Vacate Orders
24) Requests for Disciplinary Proceeding Presentations
25) Motions
26) Petitions
27) Appearances from Requests Received or Renewed
28) Speaking Engagements, Travel, or Public Relation Requests, and Reports

H. Public Comments

ADJOURNMENT

NEXT MEETING: AUGUST 11, 2026

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MEETINGS AND HEARINGS ARE OPEN TO THE PUBLIC, AND MAY BE CANCELLED WITHOUT NOTICE.

Times listed for meeting items are approximate and depend on the length of discussion and voting. All meetings are held virtually unless otherwise indicated. In-person meetings are typically conducted at 4822 Madison Yards Way, Madison, Wisconsin, unless an alternative location is listed on the meeting notice. In order to confirm a meeting or to request a complete copy of the board's agenda, please visit the Department website at https:\\dsps.wi.gov. The board may also consider materials or items filed after the transmission of this notice. Times listed for the commencement of any agenda item may be changed by the board for the convenience of the parties. The person credentialed by the board has the right to demand that the meeting at which final action may be taken against the credential be held in open session. Requests for interpreters for the hard of hearing, or other accommodations, are considered upon request by contacting the Affirmative Action Officer or reach the Meeting Staff by calling 608-267-7213.

HYBRID (VIRTUAL/IN-PERSON)
CONVEYANCE SAFETY CODE COUNCIL
MEETING MINUTES
APRIL 7, 2026

PRESENT: David Danowski *(virtual)*, Adam Lex, Keith Misustin *(virtual)*, Brian Rausch, Brian Richards *(virtual)*, Paul Rosenberg, Mark Sommerfeld,

ABSENT: Andrew Braun Harold Thurmer, Maiya Whelan

STAFF: Will Johnson, Executive Director; Jameson Whitney, Legal Counsel; Sofia Anderson, Administrative Rule Coordinator; Ashley Sarnosky, Board Administrative Specialist; and other Department Staff

CALL TO ORDER

Paul Rosenberg, Chairperson, called the meeting to order at 9:31 a.m. A quorum was confirmed with seven (7) members present.

ADOPTION OF AGENDA

MOTION: Adam Lex moved, seconded by David Danowski, to adopt the agenda as published. Motion carried unanimously.

APPROVAL OF MINUTES OF FEBRUARY 10, 2026

MOTION: Adam Lex moved, seconded by Mark Sommerfeld, to approve the minutes of February 10, 2026, as published. Motion carried unanimously.

ADJOURNMENT

MOTION: Adam Lex moved, seconded by Mark Sommerfeld, to adjourn the meeting. Motion carried unanimously.

The meeting adjourned at 1:28 p.m.

State of Wisconsin
Department of Safety & Professional Services

AGENDA REQUEST FORM

1) Name and title of person submitting the request:	2) Date when request submitted:
Sofia Anderson – Administrative Rules Coordinator	05/07/2026
	Items will be considered late if submitted after 12:00 p.m. on the deadline date which is 8 business days before the meeting

3) Name of Board, Committee, Council, Sections:

Conveyance Safety Code Council

4) Meeting Date:	5) Attachments:	6) How should the item be titled on the agenda page?
May 19, 2026	☒ **Yes** ☐ **No**	Administrative Rules Matters – Discussion and Consideration 1. Drafting: SPS 302, 305, 316, 318, 321, 362, 366, 381, 382, relating to Conveyance Safety Code comprehensive review. 2. Pending and possible rulemaking projects.

7) Place Item in:	8) Is an appearance before the Board being scheduled? *(If yes, please complete **Appearance Request** for Non-DSPS Staff)*	9) Name of Case Advisor(s), if required:
☒ **Open Session** ☐ **Closed Session**	☐ **Yes** ☒ **No**	N/A

10) Describe the issue and action that should be addressed:

Attachments:

1. Chapter SPS 318.
2. DIS worksheet.

11) Authorization

SAnderson

05/07/2026

Signature of person making this request **Date**

Supervisor (if required) **Date**

Executive Director signature (indicates approval to add post agenda deadline item to agenda) **Date**

Directions for including supporting documents:
1. This form should be attached to any documents submitted to the agenda.
2. Post Agenda Deadline items must be authorized by a Supervisor and the Policy Development Executive Director.
3. If necessary, provide original documents needing Board Chairperson signature to the Bureau Assistant prior to the start of a meeting.

Chapter SPS 318

ELEVATORS, ESCALATORS, AND LIFT DEVICES

Note: Chapter Ind 4 as it existed on August 31, 1988 was repealed and a new chapter ILHR 18 was created effective September 1, 1988. Chapter ILHR 18 was renumbered to be chapter Comm 18 under s. 13.93 (2m) (b) 1., Stats., and corrections made under s. 13.93 (2m) (b) 6. and 7., Stats., Register, October, 1996, No. 490. Corrections were made under s. 13.93 (2m) (b) 6., Stats., Register, April, 1998, No. 508. Chapter Comm 18 as it existed on November 30, 1999 was repealed and a new chapter Comm 18 was created effective December 1, 1999. Chapter Comm 18 as it existed on March 31, 2004, was repealed and a new chapter Comm 18 was created, Register March 2004 No. 579, effective April 1, 2004. Subchapters II to IV of chapter Comm 18 as they exist on December 31, 2008, are repealed and new subchapters II to IV are created Register June 2008 No. 630, effective January 1, 2009. Chapter Comm 18 was renumbered chapter SPS 318 under s. 13.92 (4) (b) 1., Stats., Register December 2011 No. 672; Chapter SPS 318 as it existed on August 31, 2014 was repealed and a new chapter SPS 318 was created Register August 2014 No. 704, effective September 1, 2014.

Subchapter I — Scope and Application

SPS 318.1001 Purpose. Pursuant to ss. 101.982 and 101.983, Stats., the purpose of this chapter is to establish minimum safety standards for the design, construction, installation, operation, inspection, testing, maintenance, alteration, repair, and replacement of conveyances.

History: CR 03-047: cr. Register March 2004 No. 579, eff. 4-1-04; CR 08-030: am. Register December 2008 No. 636, eff. 1-1-09; CR 14-020: r. and recr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1002 Scope. This chapter applies to conveyances as defined in s. SPS 318.1004 (10).

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1003 Application. (1) RETROACTIVITY. (a) The design, construction, and installation rules of this chapter, including the acceptance-inspection requirements and the applied criteria from the standards adopted in s. SPS 318.1005, do not apply retroactively to conveyances existing prior to the effective date of the rule unless specifically stated in the administrative rule or standard.

(b) 1. The operation, testing, maintenance, and periodic inspection requirements of this chapter apply to all conveyances that exist on or after June 1, 2020, except as provided in subd. 2. and pars. (c) to (e).

2. The provisions of subd. 1. do not apply to a conveyance with a contract date of prior to January 1, 2009, that serves a dwelling unit.

Note: Although the provisions of subdivision 1. do not apply as stated above, these conveyances are subject to the requirements in section 101.983 (3) of the Statutes, which reads as follows: "If the owner and a prospective buyer of an individual residential dwelling unit that is served by a dumbwaiter or an elevator enter into a contract of sale for the unit that includes a provision requiring that the dumbwaiter or elevator be inspected, the inspection shall be performed by an elevator inspector licensed under s. 101.985 (3)."

(c) 1. The design, construction, and installation requirements of this chapter, including the acceptance-inspection requirements apply to any alterations, repairs, and replacement parts or components for any conveyance that have a contract date of on or after June 1, 2020, except as provided in subd. 2., par. (e), and sub. (1m).

Note: See section SPS 318.1007 (3) for further information about plan review for alterations and replacements.

2. The provisions of subd. 1. do not apply to a conveyance with a contract date of prior to January 1, 2009, that serves a dwelling unit.

Note: A proposed alteration for an existing conveyance may necessitate modifying other components of the conveyance to make the proposed alteration comply with this chapter — and some alterations may necessitate modifying other features of a building that must comply with requirements in chapters SPS 320 to 325, the Wisconsin Uniform Dwelling (One- and Two-Family Dwelling) Code, and chapters SPS 361 to 366, the Wisconsin Commercial Building Code.

(e) Periodic inspections are not required under this chapter for any conveyances that receive periodic inspections by United States government inspectors.

(1m) EXCLUSIONS. This chapter does not apply to any conveyances for any of the following buildings or structures:

(a) 1. Buildings or structures located on Indian reservation land that are held either in trust by the United States, or in fee by the tribe or a tribal member.

2. Buildings or structures which are located on off-reservation Indian land that is held in trust by the United States – and which are held either in trust by the United States, or in fee by the tribe or a tribal member.

(b) Buildings and portions of buildings that are federally owned or exempted by federal statutes, regulations, or treaties.

(c) Portions of buildings leased to the federal government provided all of the following conditions are met:

1. A statement is recorded with the register of deeds that describes the steps necessary for compliance to this chapter if the space is converted to a nonexempt use.

2. The statement recorded with the register of deeds is recorded in a manner that will permit the existence of the statement to be determined by reference to the property where the building is located.

3. The owner of the building submits a copy of the recorded document to the department or its authorized representative.

(d) Buildings and structures that are on a farm premises and used primarily for purposes relating to farming or livestock, provided any use of the building or structure by the public consists only of consumers directly using the livestock or receiving farm commodities, substantially all of which have been produced on the farm premises. In this paragraph, "substantially all" means at least 90 percent of the commodities have been planted or produced on the farm premises.

(2) DIFFERING RULES. (a) Where any department-written rule in this chapter differs from a requirement within a standard referenced in this chapter, the department-written rule shall govern.

(b) Where a provision of this chapter prescribes a general requirement and another provision of this chapter prescribes a specific or more detailed requirement regarding the same subject, the specific or more detailed requirement shall govern, except as provided in par. (a).

(c) Where different sections of this chapter specify conflicting requirements, the most restrictive requirement, as determined by the department, shall govern, except as provided in pars. (a) and (b).

(3) INTERPRETATIONS. Under s. 101.02 (1), Stats., the department reserves the right to interpret the requirements in this chapter and in all adopted codes and standards adopted under s. SPS 318.1005.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: am. (1) (b) 1., (c) 1., renum. (1) (d) to (1m), cr. (1m) (title), (1m) (d), r. (4) Register May 2020 No. 773, eff. 6-1-20.

Subchapter II — Definitions and Standards

SPS 318.1004 Definitions. In this chapter:

(1) "Agent municipality" means any municipality designated as an agent of the department under s. SPS 318.1012 (1) (a).

(2) "Alteration" means any change to equipment, including its parts, components, or subsystems, other than maintenance, repair, or replacement.

(3) "Approved" means acceptable to the department.

(4) "ANSI" means the American National Standards Institute.

(4m) "ANSI E1.42" means ANSI E1.42-2018, *Entertainment Technology – Design, Installation, and Use of Orchestra Pit Lifts*, as adopted under s. SPS 318.1005 (1) and modified by this chapter.

(5) "ASME" means the American Society of Mechanical Engineers.

(6) "ASME A17.1" means ASME A17.1–2016/CSA B44–16, *Safety Code for Elevators and Escalators,* as adopted under s. SPS 318.1005 (1) and modified by this chapter.

(7) "ASME A18.1" means ASME A18.1–2017, *Safety Standard for Platform Lifts and Stairway Chairlifts,* as adopted under s. SPS 318.1005 (1) and modified by this chapter.

(8) "Building code" means chs. SPS 361 to 366, which is the Wisconsin Commercial Building Code.

Note: The Wisconsin Commercial Building Code, chapters SPS 361 to 366, adopts by reference the *International Building Code*® (IBC), the *International Energy Conservation Code*® (IECC), the *International Mechanical Code*® (IMC), the *International Fuel Gas Code*® (IFGC), and the *International Existing Building Code*® (IEBC). Chapter SPS 314, Fire Prevention Code, may have rules that may affect the maintenance and use of an existing building.

(9) "Contract date" means the date of a written contract between an owner or owner's agent, and an elevator contractor who is so licensed under ch. SPS 305, under which a conveyance has been or is to be installed or is to undergo an alteration, repair, or replacement.

(10) "Conveyance" means the following types of devices, as they are subsequently defined:

(ag) "Dumbwaiter" has the meaning as given in s. 101.981 (1) (d), Stats.

(ar) "Elevator" has the meaning as given in s. 101.981 (1) (e), Stats.

(b) "Escalator" has the meaning as given in s. 101.981 (1) (f), Stats.

(c) "Freight elevator" means an elevator used primarily for carrying freight and on which only the operator and the persons necessary for unloading and loading the freight are permitted to ride.

(d) "Inclined platform lift" means a powered hoisting and lowering mechanism designed to transport persons with physical disabilities on a guided platform that travels on an incline.

(e) "Limited-use, limited-application elevator" means a power passenger elevator in which the use and application is limited by size, capacity, speed, and rise.

(f) "Moving walk" means a type of passenger-carrying device on which passengers stand or walk, and in which the passenger-carrying surface remains parallel to its direction of motion and is uninterrupted.

(g) "Orchestra pit lift" means a permanent powered hoisting and lowering mechanism which is within or adjacent to a theatrical or musical stage and which is intended to accommodate performers and their equipment. "Orchestra pit lift" includes orchestra elevators and stage elevators.

(h) "Part V elevator" means an elevator of the private-residence type serving a commercial building and having a contract date of between September 1, 1988, and April 1, 2004.

(i) "Passenger elevator" means an elevator used primarily to carry persons other than the operator and persons necessary for loading and unloading. This term does not include limited-use, limited-application elevators, elevators in dwelling units, orchestra pit lifts, special purpose personnel elevators, sidewalk elevators, rooftop elevators, and type B material lifts.

(j) "Private residence elevator" means a power passenger elevator which is limited in size, capacity, rise, and speed, and which is installed to provide access to or within an individual dwelling unit.

(k) "Rooftop elevator" means a power passenger or freight elevator operating between a landing at roof level and other landings, and that opens onto the exterior roof level of a building through a horizontal opening.

(L) "Sidewalk elevator"means a device with on-car controls for the raising or lowering of materials operating between a landing in a sidewalk or other exterior area and floors below the sidewalk or grade level and that opens onto the exterior area through a horizontal opening.

(m) "Special purpose personnel elevator" means an elevator that is to provide vertical transportation of authorized personnel and their tools and equipment only; is limited in size, capacity, and speed; and is permanently installed in any of the following structures:

1. Antenna towers.
2. Assembly facilities, such as installations providing access to catwalks or equipment.
3. Breweries.
4. Bridge towers.
5. Dams.
6. Feed or grain facilities.
7. Mine-product drying facilities.
8. Observatories.
9. Paper mills.
10. Power plants.
11. Refineries.
12. Underground facilities, excluding mine-shaft elevators.
13. Wastewater treatment structures.

(o) "Stairway chairlift" means a powered hoisting and lowering mechanism that is guided and equipped with a seat to transport a passenger along a stairway.

(om) "Type B material lift" means a powered hoisting and lowering mechanism used for carrying material and on which only the operator or the person necessary for unloading and loading the material is permitted to ride.

(p) "Vertical platform lift" means a powered hoisting and lowering mechanism designed to transport mobility-impaired persons on a guided platform that travels vertically.

(11) "Department" means the department of safety and professional services.

(12) "Dwelling unit" has the meaning given in s. 101.61 (1), Stats.

(12e) "Electrical code" means ch. SPS 316, which is the Wisconsin Electrical Code.

(12m) "First-aid treatment" has the meaning given to "first aid" in 29 CFR 1904.7 (b) (5) (ii), regardless of who is providing the treatment.

(12s) "Hoistway" means a shaft or opening through a building or structure for the travel of elevators, dumbwaiters, or material lifts, extending from the pit floor to a ceiling above.

(13) "Licensed elevator inspector" means an individual who holds a valid credential issued by the department under ch. SPS 305 as an elevator inspector.

(14) "Maintenance" means a process of routine examination, lubrication, cleaning, and adjustment of parts, components, or subsystems for the purpose of ensuring performance in accordance with the applicable requirements of this chapter.

(15) "Repair" means the reconditioning or renewal of parts, components, or subsystems necessary to keep equipment in compliance with the applicable requirements of this chapter.

(16) "Replacement" means the substitution of a device, component, or subsystem, in its entirety, with a unit that is basically the same as the original for the purpose of ensuring performance in accordance with the applicable requirements of this chapter.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: cr. (4m), am. (6), (7), renum. (10) (a) to (10) (ar), cr. (10) (ag), am. (10) (g), (i), (L), r. (10) (n), cr. (10) (om), (12e), (12m), (12s) Register May 2020 No. 773, eff. 6-1-20.

SPS 318.1005 Adoption of standards by reference. (1) PRIMARY STANDARDS. The following standards are hereby incorporated by reference into this chapter, subject to the modifications specified in this chapter:

(a) *Safety Code for Elevators and Escalators, ASME A17.1–2016/CSA B44–16.*

(b) *Safety Standard for Platform Lifts and Stairway Chairlifts, ASME A18.1–2017.*

(c) *Entertainment Technology-Design, Installation, and Use of Orchestra Pit Lifts, ANSI E1.42-2018.*

(2) SECONDARY REFERENCES. Any codes or standards referenced in the standards adopted in sub. (1) shall apply to the prescribed extent of each such reference, except as modified by this chapter.

(3) ALTERNATE STANDARDS. Any alternate standard that is equivalent to or more stringent than a standard incorporated by reference or otherwise referenced under this chapter may be used in lieu of the incorporated or referenced standard if the alternate standard is accepted in writing by the department.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: am. (1) (intro), (a), (b), cr. (c) Register May 2020 No. 773, eff. 6-1-20.

Subchapter III — Administration and Enforcement

SPS 318.1006 Fees. Fees for plan review, permit application, inspection, permit to operate, and other services performed by the department pertaining to elevators, escalators, and lift devices shall be as determined in ch. SPS 302.

History: CR 03-047: cr. Register March 2004 No. 579, eff. 4-1-04; CR 07-089: am. Register June 2008 No. 630, eff. 1-1-09; correction made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 14-020: r. and recr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1007 Plan review and approval. (1) APPROVALS. (a) 1. Before commencing the construction or installation of a conveyance, an approval shall be obtained from the department or agent municipality within whose boundaries the conveyance is to be located.

2. Before commencing an alteration of an existing conveyance as delineated in Tables SPS 318.1007-1 to 318.1007-4, an approval shall be obtained from the department or agent municipality within whose boundaries the conveyance is located.

(b) Pursuant to s. 101.983 (1) (a), Stats., the approval issued by the department or agent municipality shall be considered a permit.

(2) NEW INSTALLATIONS. (a) *Number of plans.* 1. When seeking an approval from the department, at least 3 copies of plans and one set of specifications shall be submitted for review for a new conveyance installation, except as provided in subd. 2.

2. In lieu of 3 copies of an installation plan, a plan in an electronic format acceptable to the department may be submitted.

Note: An acceptable electronic format does not include a facsimile.

(b) *Level of detail.* An installation plan submitted for review shall be of sufficient clarity and detail to show how the proposed design will conform to this chapter.

(c) *Material to submit.* 1. 'Plan submittals.' A plan submittal to the department for installation approval shall be accompanied by all of the following:

a. At least 3 copies of the completed application, on an approved form.

Note: Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.

b. A plan review fee.

c. An acceptance-inspection fee.

d. The initial permit-to-operate fee.

e. Sufficient information, calculations, or data to substantiate compliance with this chapter.

2. 'Elevators or dumbwaiters.' For an elevator or dumbwaiter, submitted materials shall include the information in the layout-drawings section in the applicable Part of ASME A17.1, and at least all of the following:

a. A plan of the car and hoistway showing all clearances, including all inside car or platform dimensions, as specified in this chapter and the building code.

b. A plan of the machine room, control room, or control space showing clearances around the machine, controller, and disconnecting means, as specified in this chapter, the building code, and the electrical code, where applicable.

c. A cross-section through the hoistway, pit, and car, showing all applicable dimensions.

d. The size and weight per foot of guiderails and details of their support, including reinforcements where required.

e. Landings indicating types of hoistway doors or gates.

3. 'Escalators or moving walks.' For an escalator or moving walk, plans submitted for review shall include all of the following:

a. A plan view showing step, pallet, or belt-treadway width and machine-space clearances.

b. An elevation view showing all applicable dimensions.

Note: Under this subdivision, if the scope of work for an escalator includes a replacement of the majority of internal parts, the work is considered to be a new installation even if a majority of the truss is retained.

4. 'Vertical platform lifts.' For a vertical platform lift, plans submitted for review shall include all of the following:

a. A plan of the platform enclosure and runway including all inside platform dimensions and clearances specified in this chapter and the building code where applicable.

b. A section through the runway, pit, and platform showing all dimensions and clearances.

c. Landings indicating types of runway doors or gates. Where manual doors or gates are provided, plans showing the clearances at manual doors or gates meeting the building code.

5. 'Inclined platform lifts or stairway chair lifts.' For an inclined platform lift or stairway chair lift, plans submitted for review shall include the following:

a. A plan of the lift shown in its unfolded operational position at each landing and on the stairway with egress past the lift dimensioned.

b. A section through the stairway or runway showing clearances to steps and overhead with the lift in its unfolded, usable position.

c. A calculation of egress width past the lift meeting the building code, prepared by a licensed architect or engineer, or evidence such calculation has been approved by the building code authority.

(3) SCOPE OF ALTERATIONS, REPAIRS, AND REPLACEMENTS. (a) For proposed alterations, repairs, or replacements listed in Table SPS 318.1007-1 Items 1. to 4. and Tables SPS 318.1007-2, 318.1007-3, and 318.1007-4, all of the following shall be submitted with the request for approval:

1. At least 3 copies of the completed application, on an approved form, if the submittal is to the department.

Note: Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.

2. At least 3 copies of bound equipment layout plans and specifications that conform to the applicable sections in ASME A17.1 or ASME A18.1.

3. A plan review fee.

4. An acceptance-inspection fee.

Note: See chapter SPS 302 for the amount of the fee remitted to the department when a conveyance plan is filed.

5. Sufficient data and information to determine if the proposed alteration complies with the requirements of this chapter.

(b) For proposed alterations listed in Table SPS 318.1007-1 Items 5. to 33., all of the following shall be submitted with the request for approval:

1. At least 3 copies of the completed application, on an approved form, if the submittal is to the department.

2. A plan review fee.

3. An acceptance-inspection fee.

4. Sufficient data and information to determine if the proposed alteration complies with this chapter.

Table SPS 318.1007-1 Elevators and Orchestra Pit Lifts

Item	Scope of Work
1.	Alteration or replacement of hoistway enclosure walls, pit, or ceiling; or to number or location of landings served
2.	Alteration of machine-room, machinery-space, control-room, or control-space walls, floor, ceiling, or entrance; or to location of machinery

Table SPS 318.1007-1 Elevators and Orchestra Pit Lifts

Item	Scope of Work
3.	Alteration of passenger elevator to freight type, or freight to passenger type
4.	Alteration of loading class for a freight elevator
5.	Alteration of traction driving machine, motor, sheave, driving machine brake, or emergency brake
6.	Replacement of entire driving machine, driving machine brake, or emergency brake
7.	Installation of a fire sprinkler in a machine room, machinery space, control room, control space, or top of hoistway
8.	Increase in loading of more than 5% to machinery, beams, supports, or foundations
9.	Alteration of hoistway door or gate
10.	Alteration of hoistway-door interlock or combination mechanical lock and contacts
11.	Alteration of a solely contact type to another type of reopening device on an elevator with firefighters' emergency operation
12.	Increase or decrease of more than 5% of the total load of car deadweight plus rated load
13.	Increase or decrease in rated load
14.	Increase or decrease in speed of more than 5%
15.	Alteration or replacement of safety device
16.	Alteration or replacement of overspeed governor
17.	Alteration or addition of an emergency brake or device protecting against unintended movement or ascending car overspeed
18.	Alteration to suspension material, grade, number or size as defined in ASME A17.1 sections 8.7.2.21 and 8.7.3.25
19.	Increase in stresses of more than 5% to guiderails, supports, and fastenings
20.	Alteration to type or location of car or counterweight buffer or bumper
21.	Alteration to type of terminal stopping device
22.	Alteration to or addition of a top-of-car operating device
23.	Replacement of controller
24.	Alteration to type of motion control
25.	Alteration to type of operation control
26.	Addition of emergency or standby power system
27.	Alteration to or addition of firefighters' emergency operation system
28.	Alteration to or addition of auxiliary power supply raising or lowering operation
29.	Replacement or addition of a plunger gripper
30.	Replacement of a complete hydraulic pumping unit including motor, pump, and tank
31.	Alteration or replacement of hydraulic control valve
32.	Alteration or replacement of hydraulic plunger or cylinder
33.	Increase in hydraulic working pressure of more than 5%
34.	Removal or disabling of devices subject to ASME A17.1 section 8.6.1.7.5

Table SPS 318.1007-2 Escalators and Moving Walks

Item	Scope of Work
1.	Alteration or repair of truss
2.	Alteration to rated speed or installation of speed varying system
3.	Installation or addition of skirt brushes
4.	Alterations to safety component or safety switch as defined in ASME A17.1 sections 6.1.6.3 and 6.2.6.3, 'Electrical protective device'

Table SPS 318.1007-3 Dumbwaiters and Type B Material Lifts

Item	Scope of Work
1.	Increase or decrease in rated load

2.	Increase or decrease in speed of more than 5%
3.	Alteration to car size

Table SPS 318.1007-4 Platform Lifts

Item	Scope of Work
1.	Alteration to or replacement of overspeed or slack suspension safety device
2.	Alteration to or replacement of hydraulic jack plunger or cylinder
3.	Alteration to or replacement of hydraulic valve
4.	Alteration to or addition of machine room

Note: See chapter SPS 302 for fee requirements.

History: CR: 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; correction in (2) (a) (title), (b) (title), (c) (title) made under s. 13.92 (4) (b) 2., Stats., Register August 2014 No. 704; CR 19-118: am. (2) (c) 1. a., (3) (title), (a) (intro.), 1., Table SPS 318.1007-1, Table SPS 318.1007-2, Table SPS 318.1007-3, Table SPS 318.1007-4 Register May 2020 No. 773, eff. 6-1-20.

SPS 318.1008 Plan review actions. (1) PROCESSING. The department shall review and make a determination on a request for plan approval within 15 business days, except as provided in sub. (2) (d).

(2) DETERMINATIONS. (a) *Conditional approval.* 1. If the department determines the application and plans for installation or alteration substantially comply with the provisions of this chapter, the department shall grant a conditional approval in writing.

2. Non-code-complying conditions stated in the conditional approval shall be corrected before or during installation.

3. A conditional approval issued by the department may not be construed as an assumption of any responsibility for the design or construction of the equipment.

4. The issuance of a conditional approval by the department does not alleviate the responsibility to correct any non-code-complying condition, element, or component not specifically enumerated in a conditional approval.

(b) *Revocation of approval.* The department may revoke any approval issued by department if the department determines any of the following:

1. That information provided for obtaining the approval contains false statements or misinterpretations of material fact.

2. That the approval was issued in error.

3. That the work performed is not consistent with the approval or is in violation of this chapter.

(c) *Denial of approval.* The request for plan approval shall be denied, in writing, if the department determines that the plans or the application do not substantially comply with the provisions of this chapter.

(d) *Hold.* 1. The request for plan approval shall be placed on hold if the department determines that the submittal is not of sufficient detail or missing information to determine whether the proposal conforms to this chapter.

2. If the request for plan approval is placed on hold, the permit-processing timeframe in par. (a) shall also be interrupted until the appropriate information is submitted to complete the review, except the request for approval and the hold shall expire if the appropriate information is not submitted within 90 calendar days of being requested.

(e) *Expiration.* As required under s. 101.983 (1) (d), Stats., an approval issued under this chapter expires under any of the following circumstances:

1. If the work authorized under the approval does not commence within 6 months after the date on which the approval is issued.

2. If the work authorized under the approval is suspended or abandoned for 60 consecutive days at any time following the commencement of the work.

3. a. On the date specified by the department under subd. 3. b.

b. The department may, notwithstanding subds. 1. and 2., specify a shorter period of time at the time the approval is issued, which shall be no later than 2 years after the approval date shown on the approved plans. Upon request to the secretary, the expiration date may be extended for a one-time, 2-year period at the discretion of the secretary provided the written request is submitted prior to expiration of the original approval.

(f) *Re-submittal.* When an approval expires under par. (e), plans shall be resubmitted in accordance with s. SPS 318.1007.

(3) REVISIONS TO APPROVED PLANS. (a) All proposed revisions and modifications which involve rules under this chapter and which are made to construction documents that have previously been granted approval by the department or agent municipality shall be submitted for review to the entity that granted the approval, unless determined by the department or agent municipality to be too minor to warrant re-submittal.

(b) All revisions and modifications to the plans shall be approved in writing by the department or agent municipality prior to the work involved in the revision or modification being carried out.

(4) EVIDENCE OF APPROVAL. Where plan approval is required by this chapter, one set of plans bearing the stamp of approval, a copy of the specifications, the approval-application form, and the approval letter shall be kept at the installation or alteration site from the beginning of construction until an inspection determines compliance with this chapter for the approved scope of work.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: cr. (2) (e) 3. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.1009 Identification of conveyances. (1) REGISTRATION NUMBER. All conveyances that are required to have a permit to operate shall be identified by a registration number supplied by the department or agent municipality.

(2) POSTING. The registration number shall be posted in the following manner:

(a) For a conveyance having a machine room, control room, or control space accessed directly from a building floor level or roof, on the main electrical disconnect or controller.

(b) For a conveyance having an inspection and test panel, inside the cover of the inspection and test panel.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1010 Product approvals. (1) VOLUNTARY APPROVAL. (a) Materials, equipment, and products regulated by this chapter may receive a written approval from the department indicating code compliance.

(b) 1. Approval of materials, equipment, and products shall be based on sufficient data, tests, and other evidence that prove the material, equipment, or product is in compliance with the standards specified in this chapter.

2. Tests, compilation of data, and calculations documenting compliance shall be provided by one of the following:

a. A qualified independent third party.

b. A Wisconsin-registered architect or engineer.

(2) REVIEW, APPROVAL, AND REVOCATION PROCESSES. (a) 1. Upon receipt of a fee and a written request, the department may issue an approval for a material, equipment, or product.

2. The department shall review and make a determination on an application for approval after receipt of all forms, fees, plans, and information required to complete the review.

3. A determination shall be made within 45 business days of receipt of all required materials.

(b) 1. The department may include specific conditions in issuing an approval, including an expiration date for the approval.

2. Violations of the conditions under which an approval is issued shall constitute a violation of this chapter.

(c) If the department determines that the material, equipment, or product does not comply with this chapter or the intent of this chapter, the request for approval shall be denied in writing.

(d) If an approved material, equipment, or product is modified, the approval shall be considered null and void, and the modification shall be submitted to the department for review.

(e) 1. The department may revoke or deny an approval for any false statements or misrepresentations of relevant facts or data; unacceptability of a third party that provided any information on which the approval was based; or as a result of material, equipment, or product failure.

2. The department may reexamine an approved material, equipment, or product and issue a revised approval at any time.

3. The department may revoke an approval if the department determines that the material, equipment, or product does not comply with this chapter or the intent of this chapter due to a change in the chapter or department interpretation of the chapter.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1011 Inspections and permits to operate. (1) GENERAL. Pursuant to s. 101.983 (2), Stats., no person may allow a conveyance to operate on property owned by the person unless the person holds a valid permit to operate for the conveyance, except this requirement does not apply to elevators or dumbwaiters that serve dwelling units.

Note: Although a permit to operate is not required under this subsection for elevators and dumbwaiters serving dwelling units, these elevators and dumbwaiters are subject to the requirements in section 101.983 (3) of the Statutes, which reads as follows: "If the owner and a prospective buyer of an individual residential dwelling unit that is served by a dumbwaiter or an elevator enter into a contract of sale for the unit that includes a provision requiring that the dumbwaiter or elevator be inspected, the inspection shall be performed by an elevator inspector licensed under s. 101.985 (3)."

(2) INITIAL ISSUANCE. (a) The department or agent municipality shall issue a permit to operate for the installation of a conveyance after an acceptance inspection by one of the following determines and documents that the conveyance was installed and constructed in compliance with this chapter:

1. The department.

2. An agent municipality.

3. A licensed elevator inspector who is referred to as enforcing this chapter, in a written contract between the inspection provider and the department.

(b) The issuance of a permit to operate by the department or agent municipality shall occur within 10 business days of completing and filing the inspection report.

(4) PERMIT EXPIRATION. (a) Each conveyance shall be assigned an inspection anniversary date by the department or agent municipality.

(b) A permit to operate shall be valid for one year from the assigned inspection anniversary date.

(5) PERMIT RENEWAL. (a) 1. The renewal of a permit to operate shall be contingent upon one or more inspections that determine that a conveyance is in compliance with this chapter and any preceding design, construction, and installation requirements of this chapter that were in effect during construction or installation of the conveyance.

2. The inspection or inspections under subd. 1. shall be conducted no sooner than 120 days prior to the expiration of the permit to operate.

3. The owner of an existing conveyance for which a permit to operate was issued by the department or agent municipality may have the inspection or inspections for the renewal of the permit conducted by one of the following:

a. The department.

b. An agent municipality.

c. An independent licensed elevator inspector.

d. A licensed elevator inspector who is referred to as enforcing this chapter, in a written contract between the inspection provider and the department.

4. If an independent licensed elevator inspector conducts the inspection or inspections under subd. 1, the renewal of the permit by the department or agent municipality shall be contingent upon receipt of a report under sub. (8) and the recommendation to issue the permit to operate.

(b) The inspection to renew a permit to operate shall include at least all of either of the following:

1. For elevators, escalators, moving walks, dumbwaiters, and material lifts, the items listed in ASME A17.1 sections 8.6 and 8.11.2 to 8.11.5, as modified by this chapter and depending upon the type of conveyance.

2. For platform lifts and stairway chairlifts, the items listed in ASME A18.1 sections 10.2.2, 10.3.1.1 to 10.3.1.7, and 10.3.3.4, as modified by this chapter and depending upon the type of conveyance.

(6) ALTERATION INSPECTIONS. The alteration of a conveyance requiring plan approval as specified under s. SPS 318.1007 shall be inspected by one of the following before placing the conveyance back into service:

(a) The department.

(b) An agent municipality.

(c) A licensed elevator inspector who is referred to as enforcing this chapter, in a written contract between the inspection provider and the department.

Note: Under section 101.983 (2) (e) and (3) of the Statutes, alterations, repairs, and replacements of components for an elevator or dumbwaiter that serves a dwelling unit — short of a complete replacement of the conveyance — are not required to have plan approvals, or acceptance inspections corresponding to such approvals.

(7) PREPARATIONS FOR DEPARTMENT INSPECTION. (a) *Notice of inspection.* Where the installation or alteration inspection is to be conducted by the department or agent municipality for a conveyance which has received an approval under s. SPS 318.1007, the installation contractor or the owner or owner's agent shall notify the department or agent municipality at least 5 business days in advance of when all work will be completed and the conveyance will be ready for inspection. If the equipment is not complete and ready for inspection at the scheduled time, all of the following may occur:

1. The inspection may be cancelled.

2. A cancellation fee may be assessed in accordance with ch. SPS 302.

3. The inspection may be rescheduled.

Note: All notifications under this paragraph should occur only with the consent of the installing contractor, in order to avoid the penalties in subdivisions 1. to 3.

(b) *Arrangements.* The owner or owner's agent shall make arrangements to enable the department or agent municipality to inspect all parts of the conveyance and any related equipment during the scheduled time.

(bm) *Elevator mechanic.* The installation contractor or the owner or owner's agent shall make arrangements to ensure that a licensed elevator mechanic or a licensed elevator mechanic-restricted is present for the inspection of the conveyance or related equipment during the entire inspection.

(c) *Cancellation.* Where a scheduled inspection is to be cancelled, the owner or owner's agent of a conveyance shall notify the department or agent municipality at least 2 business days before the scheduled time. Failure to do so may result in a cancellation fee assessed in accordance with ch. SPS 302.

(8) INSPECTION REPORT. Where an inspection specified in sub. (2), (5), or (6) is performed by someone other than an a licensed elevator inspector of the department or an agent municipality, the licensed elevator inspector shall file an inspection report with the department in accordance with all of the following:

(a) Reports shall be sent to the department in accordance with the department's electronic data interchange transfer guidelines, except as provided in par. (b), within 5 business days after completing the inspection unless additional time is authorized by the department.

(b) An approved form may be used in lieu of the electronic data interchange system where approved in advance by the department.

Note: Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.

(c) 1. The inspection report shall explain any violation or unsafe condition, with references to specific code sections and the nature of the deficiency.

2. Where an inspection report denotes conditions that pose an imminent threat to life or limb and require the conveyance to be taken out of service, both of the following shall be done immediately:

a. The owner or owner's agent shall take the conveyance out of service.

b. The licensed elevator inspector shall notify the department.

Note: The Department may be contacted at telephone (608) 266-7548 during normal business hours. The State Division of Emergency Management can be contacted at (800) 943-0003 during non-business hours.

3. The licensed elevator inspector shall provide the owner or owner's agent with a copy of the inspection report within 5 business days of the inspection.

(d) The inspection report shall be legible and complete.

(9) INDEPENDENT LICENSED ELEVATOR INSPECTOR PROCEDURES. Where inspections are provided by an independent licensed elevator inspector, all of the following requirements apply:

(a) The licensed elevator inspector shall submit written verification to the department of an agreement between the owner and the inspector for inspection services, no later than 30 calendar days after inspection service on equipment covered by this chapter is started. If the owner or inspector discontinues that service, the inspector shall notify the department no later than 30 days after the date of cancellation.

(b) If the licensed elevator inspector does not file a periodic inspection report with the department by 30 calendar days prior to the expiration date of the permit to operate, the department may conduct the inspection. If the department conducts the inspection, the owner will be charged a fee in accordance with ch. SPS 302 for each inspection.

(c) If the licensed elevator inspector is unable to obtain compliance with this chapter, the inspector shall notify the department. If the department conducts the inspection, the owner will be charged a fee in accordance with ch. SPS 302 for each inspection.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: r. (3), cr. (7) (bm), am. (8) (intro.), (c) 2. b., 3. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.1012 Agent municipalities. (1) DESIGNATION. (a) Pursuant to ss. 101.12 and 101.983 (4), Stats., the department may designate a municipality as an agent of the department and thereby assign the authority to review and approve conveyance plans and specifications, conduct inspections and issue permits to operate those installations located within the municipality's boundaries.

(b) The plan review activities of a municipality that is not a 1st or 2nd class city shall be limited to parameters specified in s. 101.12 (3) (b), Stats.

(2) CONDITIONS OF AGENT DESIGNATION. (a) In addition to the statutory provisions under s. 101.12 (3) (a) to (b), Stats., all agent municipalities shall comply with all of the following:

1. Employ or contract with licensed elevator inspectors to perform plan review and inspection functions.

2. Forward to the department any information requested by the department relative to the examination of plans and inspections of conveyances.

3. Notify the department, in writing, at least 60 days prior to the date upon which the agent municipality intends to relinquish the plan examination and inspection responsibilities for equipment covered under this chapter.

(b) An agent municipality may waive its jurisdiction for plan review and approval for any project. In that case, plans shall be submitted to the department for review and approval.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1013 Accident reporting. (1) (a) Any bodily injury requiring more than first-aid treatment, that occurs in conjunction with a conveyance, shall be reported by the owner or owner's agent to the department or agent municipality within 2 business days of the injury, except as provided in par. (b).

(b) 1. Any fatality under par. (a) shall be reported to the department or agent municipality within 24 hours of the fatality.

2. For the purposes of this section, the agent municipality is the entity that issued the permit to operate for the conveyance.

(c) At minimum, a report in an acceptable format shall be submitted to the department or agent municipality.

Note: The department may be contacted by telephone at (262) 548-8600 during normal business hours. The State Division of Emergency Management can be contacted at (800) 943-0003 during non-business hours. A copy of the elevator/escalator accident report form SBD-10782 and the minimum information needed is available on the Industry Services' website at http://dsps.wi.gov/programs/industry-services.

(2) The owner of a conveyance that causes a bodily injury under sub. (1) may not remove or disturb the conveyance or any of its components or permit any such removal or disturbance prior to receiving authorization from the department or agent municipality, except for the purpose of reducing further bodily injury or property damage, or as provided in sub. (4).

(3) The owner of a conveyance that causes a bodily injury under sub. (1) may not return or allow the return of the conveyance back into operation or service until receiving authorization from the department or agent municipality that issued the permit to operate, except as provided in sub. (4).

(4) Where authorized by a licensed elevator inspector, the conveyance may be temporarily returned to service until an inspection by the department or agent municipality verifies that continuation of service is acceptable.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: am. (2) Register May 2020 No. 773, eff. 6-1-20.

SPS 318.1014 Petition for variance. A petition for variance relating to a provision in this chapter may be submitted and shall be processed in accordance with ch. SPS 303. The petition for variance shall include, where applicable, a position statement from the fire department or local building official having jurisdiction, or both.

Note: Chapter SPS 303 requires the submittal of a petition for variance form (SBD 9890X) and a fee, and that an equivalency is established in the petition for variance which meets the intent of the rule being petitioned. Chapter SPS 303 also requires the Department to process regular petitions within 30 business days and priority petitions within 10 business days.

Note: Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1015 Enforcement. Where an agent municipality administers and enforces this chapter, a regulated item or activity shall be directed to or addressed by the agent municipality before requesting input from the department.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1016 Appeals. (1) APPEAL OF DEPARTMENT ORDER. Pursuant to s. 101.02 (6) (e), Stats., any person who owns or operates a conveyance that is affected by an order of the department may petition the department for a hearing on the reasonableness of the order.

(2) APPEAL OF LOCAL ORDER. Pursuant to s. 101.02 (7) (b), Stats., any person affected by a local order that is in conflict with a provision of this chapter may petition the department for a hearing on the grounds that the local order is unreasonable and in conflict with the rule of the department.

(3) CONTESTED CASE HEARING. In addition to any other right provided by law, any interested person may file a written request for a contested case hearing, as specified in s. 227.42, Stats.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: r. (4) Register May 2020 No. 773, eff. 6-1-20.

SPS 318.1017 Penalties. Penalties for violations of this chapter are subject to and may be assessed in accordance with s. 101.988 (3), Stats.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1018 Investigations initiated by public. (1) VERIFICATION OF RECEIPT. The department shall provide verification of receipt for any notice filed in accordance with s. 101.988 (1) (b), Stats. The department shall provide electronic verification of receipt of a web-based complaint form within 5 days of submission.

Note: Generally, the department provides verification of receipt within 60 days, unless submitted using the web-based complaint form. The web-based complaint form is available at https://dsps.wi.gov.

(2) REASONABLE GROUNDS TO INVESTIGATE. The department shall provide electronic notice, or other notice as appropriate, to the person who filed the written notice of whether the department has determined that there are reasonable grounds to investigate within 45 days of making this determination.

(3) INVESTIGATION CONCLUDED. The department shall provide electronic notice, or other notice as appropriate, to the person who filed the written notice within 30 days after the conclusion of the resulting investigation.

History: CR 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

Subchapter IV — Changes, Additions, or Omissions to ASME A17.1

SPS 318.1700 Changes, additions, or omissions to ASME A17.1. (1) GENERAL. Elevators, escalators, moving walks, and lifts shall be designed, constructed, installed, operated, maintained, tested, and inspected in accordance with ASME A17.1, except as otherwise provided in this chapter.

(2) CHANGES, ADDITIONS, AND OMISSIONS. Changes, additions, or omissions to ASME A17.1 are specified in this subchapter and are rules of the department and are not requirements of ASME A17.1.

(3) ASME A17.2, A17.3, AND A17.5. All references in ASME 17.1 to ASME A17.2, A17.3, and A17.5 are informational only and are not requirements of this chapter.

Note: The sections in this subchapter are generally numbered to correspond with the section numbering in ASME A17.1. For example, section SPS 318.170*2* corresponds to ASME A17.1 *Part 2*.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: renum. (1) (a) to (1), r. (1) (b) Register May 2020 No. 773, eff. 6-1-20.

SPS 318.1701 Scope, application, and definitions. (1) Substitute the following informational notes for the requirements in ASME A17.1 section 1.1:

Note: See sections SPS 318.1002 and 318.1003 for scope and application requirements.

Note: See ASME A18.1 and subchapter V for requirements relating to vertical and inclined platform lifts, and stairway chairlifts serving public buildings and places of employment.

(2) Substitute the following definitions for the corresponding definitions specified in ASME A17.1 section 1.3:

(a) "Authority having jurisdiction" means the department of safety and professional services, except as designated under s. SPS 318.1012.

(b) "Rated speed, down" means all of the following:

1. Prior to passing an acceptance inspection, the speed at which the car, platform, or chair of an electric elevator, dumbwaiter, material lift, vertical platform lift, inclined platform lift, or stairway chairlift is designed to operate in the down direction with rated load.

2. Upon acceptance inspection, the actual speed at which the car, platform, or chair of an electric elevator, dumbwaiter, material lift, vertical platform lift, inclined platform lift, or stairway chairlift operates in the down direction with rated load.

Note: "Rated speed, down" applies to components where "rated speed" is used to describe the speed in the down direction for determining performance criteria for that code section. For the actual downspeed of a hydraulic elevator, dumbwaiter, or material lift, see the definition for "operating speed in the down direction."

(c) "Rated speed, up" means all of the following:

1. Prior to passing an acceptance inspection, the speed which the car, platform, or chair of an elevator, dumbwaiter, material lift, vertical platform lift, inclined platform lift, or stairway chairlift is designed to operate in the up direction with rated load.

2. Upon acceptance inspection, the actual speed at which the car, platform, or chair of an elevator, dumbwaiter, material lift, vertical platform lift, inclined platform lift, or stairway chairlift operates in the up direction with rated load.

Note: "Rated speed, up" applies to components where "rated speed" is used to describe the speed in the up direction for determining performance criteria for that code section.

(3) This is a department informational note to be used under ASME A17.1 section 1.3:

Note: See subsections SPS 318.1004 (8) and (10) (ar) in subchapter I for definitions of "building code" and "elevator" because under section SPS 318.1003 (2) (a) those definitions supersede the corresponding definitions in ASME A17.1 section 1.3.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: renum. (2) to (2) (intro.) and am., cr. (2) (a) to (c), am. (3) Register May 2020 No. 773, eff. 6-1-20.

SPS 318.1702 Electric elevators. (1) PIT DRAINS AND SUMPS. (a) This is a department informational note to be used under ASME A17.1 section 2.2.2.3:

Note: See ch. SPS 362 of the building code for hoistway drain and sump requirements for elevators in commercial buildings.

(b) Substitute the following informational note for the requirements in ASME A17.1 section 2.2.2.5:

Note: See chapter SPS 362 of the building code for hoistway drain and sump requirements for elevators in commercial buildings.

(bm) This is a department rule in addition to the requirements in ASME A17.1 section 2.4.5: The data plate shall indicate the minimum designed counterweight runby.

(c) This is a department informational note to be used under ASME A17.1 section 2.7:

Note: See section SPS 382.33 for prohibition of sumps and sump pumps in elevator machine rooms for elevators in commercial buildings.

(2) MACHINERY SPACES, MACHINE ROOMS, CONTROL SPACES, AND CONTROL ROOMS. (a) *Access to machine rooms and machinery spaces.* This a department rule in addition to the requirements in ASME A17.1 section 2.7.3.1: Access to a machine room, machinery space, control room, or control space may not be through any toilet room, locker room, sleeping room, or similar room or space, except in one- or two-family dwellings.

(b) *Access doors and openings.* 1. This is a department rule in addition to the requirements in ASME A17.1 section 2.7.3.4.1: The entrance to a machine room, control space, or control room shall be identified with a permanent sign. The lettering on the sign shall be at least 1-inch high and state "elevator machine room," or equivalent wording.

2. This is a department rule in addition to the requirements in ASME A17.1 section 2.7.3.4.3: Hoistway access doors shall be provided with an electric contact to remove power to the driving means when the panel is not in the closed position.

(c) *Headroom in machine rooms, machinery spaces, control rooms, and control spaces.* This is a department rule in addition to the requirements in ASME A17.1 section 2.7.4.1: For elevators installed to serve one- and two-family dwellings, headroom in these spaces may comply with the requirements in ASME A17.1 section 5.2.1.7.1.

(d) *Temperature and humidity.* This is a department informational note to be used under ASME A17.1 section 2.7.9.2:

Note: See the building code for requirements prohibiting the transfer of contaminated air in commercial buildings.

(3) EQUIPMENT IN HOISTWAYS, MACHINERY SPACES, MACHINE ROOMS, CONTROL SPACES, AND CONTROL ROOMS. (a) *Equipment allowed.* This is a department rule in addition to the requirements in ASME A17.1 section 2.8.1: Access to machinery, equipment, wiring, piping, and other building components that are not used directly in connection with the elevator may not be permitted through hoistways, machine rooms, machinery spaces, control rooms, and control spaces.

(b) *Sprinklers.* This is a department rule in addition to the requirements in ASME A17.1 section 2.8.3.3.2: A means to disconnect the main-line power is not required for elevators installed to serve one- and two-family dwellings.

(4) PROTECTION OF HOISTWAY OPENINGS. (a) *Opening of hoistway doors.* The requirements in ASME A17.1 section 2.11.6.3 (e) are not included as part of this chapter.

(b) *Illumination at landing sills.* This is a department rule in addition to the requirements in ASME A17.1 section 2.11.10.2: Landing sills are not required to be illuminated at all times for elevators installed to serve one- and two-family dwellings.

(5) HOISTWAY DOOR LOCKING DEVICES AND ELECTRIC CONTACTS, AND HOISTWAY ACCESS SWITCHES. These are department rules in addition to the requirements in ASME A17.1 section 2.12.6.2:

(a) Where the elevator has a machine room, control room, or control space accessed from a floor level of the building, the unlocking device operating key shall be located adjacent to the elevator disconnecting means in that room or space. A label at the key shall state: "Hoistway door unlocking key. Place the disconnecting means in the off position and lock it, prior to using the hoistway door unlocking key."

(b) Where the elevator has an inspection and test panel without a machine room, control room, or control space, the unlocking device operating key shall be located in the key box required by sub. (10) (b) 3. A label inside the key box or on the key shall identify the key and state: "Place the disconnecting means in the off position and lock it, prior to using the hoistway door unlocking key."

(6) CAR FRAMES AND PLATFORMS. This is a department rule in addition to the requirements in ASME A17.1 section 2.15.9: Where an existing elevator is required to comply with ASME A17.1 section 2.15.9.2(a) as part of an alteration, and the depth of the existing pit does not allow for a platform guard of 48 inches in height, the car platform guard shall conform to section 2.15.9 to the extent that the existing pit will permit, but in no case less than the leveling or truck zone plus 3 inches. Raising the car buffer to provide only 1 inch of bottom-car runby may be necessary to maximize the height of the platform guard.

(7) CAPACITY AND LOADING. This is a department informational note to be used under ASME A17.1 section 2.16.1.1:

Note: See chapter SPS 362 of the building code for stretcher-sized elevator requirements in some commercial buildings.

(8) CAR AND COUNTERWEIGHT SAFETIES. This is a department rule in addition to the requirements in ASME A17.1 section 2.17.14: The manufacturer's model number shall also be marked on the metal plate.

(9) SPEED GOVERNORS. This is a department rule in addition to the requirements in ASME A17.1 section 2.18.9: The manufacturer's model number shall also be marked on the metal plate.

(10) EMERGENCY OPERATION AND SIGNALING DEVICES. (a) *Emergency or standby power system.* This is a department informational note to be used under ASME A17.1 section 2.27.2:

Note: Standby power requirements for elevators in healthcare facilities are found in Article 517 of the *National Electrical Code*®, as adopted under chapter SPS 316. In other types of commercial buildings, stand-by power requirements are found in the building code under IBC chapter 27.

(b) *Firefighters' emergency operation.* 1g. This is a department informational note to be used under ASME A17.1 section 2.27.3.2.1:

Note: Where a conflict between NFPA 13 and NFPA 72 occurs relating to this section, the department will refer to NFPA 13.

1r. Substitute the following wording for the requirements in ASME A17.1 section 2.27.3.2.3 (a): The activation of a fire alarm initiating device specified in ASME A17.1 section 2.27.3.2.1 at any elevator lobby, other than at the designated level, shall cause all elevators that serve that lobby, and any associated elevator of a group automatic operation, to be returned nonstop to the designated level.

2. Substitute the following wording for the requirements in ASME A17.1 section 2.27.3.2.4 (a): The activation of a fire alarm initiating device specified in ASME A17.1 section 2.27.3.2.1(a) that is located in the elevator lobby at the designated level, shall cause all elevators serving that lobby to be recalled to the alternate level, unless Phase I emergency recall is in effect.

3. These are department rules in addition to the requirements in ASME A17.1 section 2.27.8:

a. An additional set of switch keys shall be kept in a lockable metal box mounted in a conspicuous location adjacent to the main elevator entrance or entrances at the designated level landing. Where a building has no fire command center and multiple lockable metal boxes, each box shall be openable by the same key. The box shall be openable only by the fire department, police department, licensed elevator inspector, and other authorized personnel. This does not prohibit additional keys from being placed in other approved locations.

b. Where the elevator has a machine room, control room, or control space, the key box shall also contain a key to access the machine room, control room, or control space, and the key shall be labeled for its use. A label inside the key box shall provide directions to the location of the disconnects, including room number where applicable.

c. Where the elevator has an inspection and test panel without a machine room, control room, or control space, the key box shall also contain the key for the lock used to secure the space, panel, or panels for the main disconnect, car light disconnect, and disconnects for any other elevator-utilization equipment. A label inside the key box shall provide directions to the location of the disconnects including room number where applicable.

4. This is a department exception to the requirements in ASME A17.1 section 2.27.9: The department may approve an equivalent sign.

(c) *One- and two-family dwellings.* 1. This is a department exception to the requirements in ASME A17.1 sections 2.27.3 to 2.27.9: The requirements in ASME A17.1 sections 2.27.3 to 2.27.9 apply to elevators serving one- or two-family dwellings as follows: where components addressed in those sections are installed, such components shall operate in accordance with those sections.

2. Substitute the following wording for the requirements in ASME A17.1 section 2.27.1: The elevator shall be provided with a hard-wired telephone or a telephone utilizing wireless, cellular, or other technology capable of operating at all points of elevator travel. The telephone shall be available in the elevator, charged if battery powered, and operational any time the elevator is in use. If the telephone is not a hard-wired land line type, the elevator shall include a sign informing riders that a telephone is required to be present while operating the elevator.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: cr. (1) (bm), renum. (10) (b) 1. to (10) (b) 1r., cr. (10) (b) 1g., am. (10) (b) 3. a., b., cr. (10) (b) 4., renum. (10) (c) to (10) (c) 1., cr. (10) (c) 2. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.1703 Hydraulic Elevators. (1) HYDRAULIC JACKS. Substitute the following wording for the requirements in ASME A17.1 section 3.18.3.8.3(b):

(a) The cylinder bottom and sides below the pit floor shall be completely surrounded by a protective material designed to withstand a static head of water from the ground level to the bottom of the cylinder, based on the manufacturer's rating of the material.

(b) The top of the material shall be visible at the pit floor.

(c) A means shall be provided between the material and cylinder to monitor the space for the entrance of water. The means to monitor shall comply with all of the following:

1. Extend from above the pit floor to below the bottom of the jack.

2. Be open on the bottom.

3. Be exposed and visible at the pit floor.

4. Be capped, plugged, or otherwise sealed at the top with a removable means.

(d) The space between the material, the means to monitor and the jack shall be sealed at or near the pit floor to prevent the entrance of water from the pit.

(e) The material shall be one of the following:

1. Rigid, non-metallic material such as polyvinylchloride or high-density polyethylene, of a schedule that will withstand the installation process.

2. Flexible material that is approved by the department. Monitoring for the entrance of ground water shall be performed according to the following schedule with findings recorded in the maintenance record:

a. At the time of the acceptance inspection.

b. Quarterly for the first 2 years corresponding with quarterly checking of oil usage required by s. SPS 318.17086 (11) (a).

c. Annually thereafter.

(f) If at any time water is found that cannot be explained by some type of accidental entry, the material shall be replaced within 6 months.

(2) OPERATING DEVICES AND CONTROL EQUIPMENT. Substitute the following informational note for the requirements in ASME A17.1 section 3.26.3.1.2:

Note: Under ICC/ANSI A117.1, as applied through the building code, the anti-creep device must maintain the car within 1/2 inch of the landing irrespective of the position of the hoistway door.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: am. (1) (e) 2. b. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.1705 Special application elevators. (1) LIMITED-USE, LIMITED-APPLICATION ELEVATORS. Substitute the following wording for the requirements in ASME A17.1 section 5.2.1.7: Equipment shall be permitted to be located in rooms containing other equipment essential for the operation of the building.

(2) HYDRAULIC LIMITED-USE, LIMITED-APPLICATION ELEVATORS. This is a department exception to the requirements in ASME A17.1 section 5.2.2: Hydraulic limited-use, limited-application elevators are not required to conform to the requirements in ASME A17.1 section 5.2.1.19.

(3) PRIVATE RESIDENCE ELEVATORS. (a) This is a department rule in addition to the requirements in ASME A17.1 section 5.3: Machinery spaces, machine rooms, control spaces, and control rooms where provided shall conform to the requirements in ASME A17.1 section 5.2.1.7.

(ag) This is a department rule in addition to the requirements in ASME A17.1 section 5.3: A previously approved residential elevator installed to serve a commercial building may be replaced with a residential type elevator in the existing hoistway. A new installation permit is required.

(ar) This is a department rule in addition to the requirements in ASME A17.1 section 5.3.1.1.1: With the car at the lowest landing, the space above the car shall be guarded on all accessible sides by a partial enclosure extension or skirt. The extension shall be solid material or openwork that will reject a ball 1/2 inch diameter. The extension shall extend from the lower landing ceiling to 1 to 2 inches below the top edge of the car. Horizontal clearance between the car and the extension shall be 3/8 inch to 3/4 inch.

(c) This is a department rule in addition to ASME A17.1 requirement 5.3.1.7.2: The vertical clearance between the hoistway door and the floor surface shall not exceed 3/8 inch.

(cc) This is a department rule in addition to the requirements in ASME A17.1 section 5.3.1.8.1:

1. The top of the car enclosure shall comply with the load requirements specified under ASME A17.1 section 2.14.1.6, except as specified in subd. 2.

2. A car enclosure shall be permitted to have a top that is not load bearing provided the top of the car enclosure is not needed to be accessed to service, maintain, or inspect any part of the elevator equipment and contains a sign meeting ANSI Z535.4 or its equivalent indicating the car top is not load bearing.

(cg) This is a department rule in addition to the requirements in ASME A17.1 section 5.3.1.6.1: Ropes and chains passing through a wall outside the hoistway enclosure shall be enclosed with a solid or openwork enclosure. If the enclosure is openwork, the enclosure shall reject a ball 13 mm, or 0.5 in., in diameter. Means for inspection shall be provided. The openings may not be larger than is necessary to clear the suspension means.

(cn) The allowance in ASME A17.1 section 5.3.1.7.4 (a) is not included as part of this chapter.

(cr) This is a department rule in addition to the requirements in ASME A17.1 section 5.3.1.14: Where the hoistway ends above an occupiable area, the floor below the car and counterweight must have sufficient strength to withstand, without failure, the impact of the car with rated load and counterweight descending at 125% of rated speed or governor tripping speed if a governor is provided.

(cw) This is a department rule in addition to the requirements in ASME A17.1 section 5.3.1.16: Rotating parts located outside of the hoistway for private residence elevators shall be enclosed with a solid or openwork enclosure. If the enclosure is openwork, the enclosure shall reject a ball 13 mm, or 0.5 in., in diameter. Means for inspection shall be provided. The openings may not be larger than is necessary to clear the rotating parts.

(d) The requirements in ASME A17.1 section 5.3.1.16.2(i)(2) are not included as part of this chapter.

(e) Substitute the following wording for the requirements in A17.1 section 5.3.1.19: The elevator shall be provided with a hard-wired telephone or a telephone utilizing wireless, cellular, or other technology capable of operating at all points of elevator travel. The telephone shall be available in the elevator, charged if battery powered, and operational any time the elevator is in use. If the telephone is not a hard-wired land line type, the elevator shall include a sign informing riders that a telephone is required to be present while operating the elevator.

Note: *Accessible and Usable Buildings and Facilities, ICC A117.1*, Section 409 for private residence elevators standards is applicable in commercial buildings, under the incorporation of the International Building CodeH in chs. SPS 361 to 366.

(4) ELEVATORS USED FOR CONSTRUCTION. This is a department rule in addition to the requirements in ASME A17.1 section 5.10.1.21.2: All elevators shall have an assigned operator while in use.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: cr. (3) (ag), (ar), renum. (3) (b) to (3) (cc) and, as renumbered, am. (3) (cc) 2., cr. (3) (c) 5., (cg), (cn), (cr),, (cw) Register May 2020 No. 773, eff. 6-1-20; correction in (3) (c) 5. made under s. 35.17, Stats., Register May 2020 No. 773, eff. 5-1-20; CR 20-057: renum. (3) (c) (intro.) to (3) (c) and am., r. (3) (c) 1. to 5. Register April 2021 No. 784.

SPS 318.1707 Dumbwaiter and Type B material lifts. (1) POWER AND HAND DUMBWAITERS WITHOUT AUTOMATIC TRANSFER DEVICES. Substitute the following wording for the requirements in ASME A17.1 Part 7, Scope: This part applies to power dumbwaiters and Type B material lifts.

(2) HOISTWAY-ACCESS DOORS. This is a department rule in addition to the requirements in ASME A17.1 section 7.1.11.5: Hoistway access door panels for power dumbwaiters shall be provided with an electric contact to remove power to the driving machine when the panel is not in the closed position.

(3) HOISTWAY-DOOR VISION PANELS. Substitute the following wording for the requirements in ASME A17.l section 7.1.11.8: Vision panels shall be provided in hoistway doors where position indicators are not provided. Vision panels shall comply with the requirements in ASME A17.1 sections 2.11.7.1.2, 2.11.7.1.3, 2.11.7.1.4, and 2.11.7.1.6, and the total area of one or more vision panels in any hoistway door may not be less than 4 square inches and not more than 25 square inches.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.17081 Security. This is a department rule in addition to the requirements in ASME A17.1 section 8.1: Key access for installations after June 1, 2020, as specified in this section, shall be verified by the department or agent municipality.

History: CR 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.17086 Maintenance, repair, replacement, and testing. (1) APPLICATION OF ASME A17.1 SECTION 8.6. The introductory paragraph of ASME A17.1 section 8.6 is not included as part of this chapter.

(2) DOCUMENTATION. (a) These are department rules in addition to the requirements in ASME A17.1 section 8.6.1.1.3:

1. A new or updated maintenance control program, maintenance records, and wiring diagrams in electronic form shall be transferred to a paper copy of the documents by the installing or service contractor within 3 months of the associated maintenance, repair, replacement, or alteration.

2. The maintenance control program, including any devices and procedures needed to meet ASME A17.1 section 8.6.1.2.1 (f), and the maintenance records and wiring diagrams are the property of the conveyance owner, not a conveyance installer or service company. They may be removed only with the permission of the owner.

3. An additional set of electrical wiring diagrams may be securely located on the top of the car only if another complete set is located in a place that is accessible by the owner or the owner's agent.

(b) Substitute the following wording for the requirements in ASME A17.1 section 8.6.1.2.1 (a): For new installations, the initial maintenance control program shall be provided by the equipment manufacturer. For existing equipment undergoing any alteration, repair, or replacement, the maintenance control program for the altered, repaired, or replaced components shall be provided by the person or firm performing the work. The maintenance control program shall be made available to elevator personnel at the scheduled time for service, tests, or inspection.

(c) Substitute the following wording for the requirements in ASME A17.1 section 8.6.1.2.1 (d): A copy of the maintenance control program shall be located as follows:

1. For a conveyance serving a commercial building and having a machine room, control room, or control space accessed directly from a building floor level or the roof, the program shall be located in that machine room, control room, or control space.

2. For a conveyance serving a commercial building and having an inspection and test panel, the inside cover of the inspection and test panel shall provide instructions for locating the maintenance control program. Instructions shall be permanently legible with lettering not less than 1/8 inch in height.

3. For a conveyance serving a dwelling unit, either the maintenance control program shall be at the controller or the front of the controller shall provide instructions for locating the maintenance control program. Instructions shall be permanently legible with lettering not less than 1/8 inch in height.

(d) Substitute the following wording for the requirements in the introductory paragraph of ASME A17.1 section 8.6.1.2.2: The documents specified in ASME A17.1 sections 8.6.1.2.2 (a), (b), and (c), and par. (e) shall be located as follows:

1. For a conveyance serving a commercial building and having a machine room, control room, or control space accessed directly from a building floor level or the roof, the documents shall be located in that machine room, control room, or control space.

2. For a conveyance serving a commercial building and having an inspection and test panel, the inside cover of the inspection and test panel shall provide instructions for locating the on-site documentation. Instructions shall be permanently legible with lettering not less than 1/8 inch in height.

3. For a conveyance serving a dwelling unit, either the on-site documentation shall be at the controller or the front of the controller shall provide instructions for locating the onsite documentation. Instructions shall be permanently legible with lettering not less than 1/8 inch in height.

(e) This is a department rule in addition to the requirements in ASME A17.1 section 8.6.1.2.2 (a), (b), and (c): Any plan approval letter, application form, and the plans issued under s. SPS 318.1008.

(f) This is a department rule in addition to the requirement in ASME A17.1 section 8.6.1.2.2 (c) (3): Written checkout procedures for two-way communication means shall be required for installations after June 1, 2020.

(g) Substitute the following wording for the requirements in the introductory paragraph of ASME A17.1 section 8.6.1.4: Maintenance records shall document compliance with the requirements in ASME A17.1 section 8.6. The maintenance records shall be retained for the most recent 5 years minimum, or from the date of installation or adoption of this chapter edition. Existing maintenance records up to 5 years minimum shall be retained. Maintenance records shall be located as follows:

1. For a conveyance serving a commercial building and having a machine room, control room, or control space accessed directly from a building floor level or the roof, the maintenance records shall be located in that machine room, control room, or control space.

2. For a conveyance serving a commercial building and having an inspection and test panel, the inside cover of the inspection and test panel shall provide instructions for locating the maintenance records. Instructions shall be permanently legible with lettering not less than 1/8 in height.

3. For a conveyance serving a dwelling unit, either the maintenance records shall be at the controller or the front of the controller shall provide instructions for locating the maintenance records. Instructions shall be permanently legible with lettering not less than 1/8 inch in height.

(h) This is a department rule in addition to the requirements in ASME A17.1 section 8.6.1.4.2: The record of trouble calls shall be included in the on-site maintenance record.

(3) FIRE EXTINGUISHERS. Substitute the following wording for the requirements in ASME A17.1 section 8.6.1.6.5: In commercial buildings, a class "ABC" fire extinguisher shall be provided inside of, or within view and within 25 feet of, a dedicated elevator machine room, control room, machinery space, control space, or inspection and test panel as applicable, or a walk-in machine or control room for an escalator or moving walk.

(4) WITNESSING PERIODIC TESTS. Substitute the following wording for the requirements in ASME A17.1 section 8.6.1.7.1: Periodic tests may be witnessed by the department or agent municipality or by a person authorized by the department or agent municipality.

(5) PERIODIC TEST RECORD. Substitute the following wording for the requirements in ASME A17.1 section 8.6.1.7.2.: A record of the required periodic tests shall be included in the maintenance record and comply with all of the following:

(a) The test record shall include the tests, applicable code requirements, dates performed, the test results, and the name of the person performing the tests.

(b) The test record shall include the license number of the person performing the tests and the name of the company employing the license holder, for tests listed in ASME A17.1 sections 8.6.4.19, 8.6.4.20, 8.6.5.14, 8.6.5.15, 8.6.6.1.1, 8.6.6.2.1, 8.6.6.3.1, 8.6.7.1.1, 8.6.7.2.1, 8.6.7.5.1, 8.6.7.6.1, 8.6.7.7.1, 8.6.7.10, 8.6.8.15, 8.6.10.1.1, and 8.6.10.2.1.

(c) If an alternative test method in ASME A17.1 section 8.6.4.20 is utilized, the test report and test tag shall indicate alternative testing was utilized for the applicable requirement.

(6) EMERGENCY COMMUNICATIONS. This is a department rule in addition to the requirements in ASME A17.1 section 8.6.4.19.15: Written checkout procedures for emergency communications shall be required for installations after June 1, 2020.

(7) AUXILIARY POWER SYSTEM TESTS. Where an existing conveyance has an auxiliary power system designed to move the car in order to evacuate passengers, the system shall be tested as part of the Category 1 tests in accordance with manufacturers' recommendations.

(8) MAINTENANCE AND TESTING OF ELECTRIC ELEVATORS. (a) *Periodic test requirements, Category 5.* This is a department rule in addition to the requirements in ASME A17.1 section 8.6.4.20: Results of all Category 5 tests shall be submitted to the department or agent municipality on approved forms.

Note: Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.

(b) *Car and counterweight safeties.* This is a department rule in addition to the requirements in ASME A17.1 section 8.6.4.20.1: Any damaged section of wood guide rails shall be replaced.

(9) PERIODIC TEST REQUIREMENTS - CATEGORY 1. (a) *Hydraulic tests.* Substitute the following wording for the requirements in the introductory paragraph of ASME A17.1 section 8.6.5.8: An elevator that has hydraulic piping or a portion of its hydraulic cylinder either in the ground or below the pit floor, and not visible for inspection, shall be tested in accordance with the requirements in ASME A17.1 sections 8.6.5.14.1 and 8.6.5.14.2 or shall conform to the requirements in ASME A17.1 section 8.6.5.8 (a) or 8.6.5.8 (b).

(b) *Relief valve verification of setting and system pressure test.* This is a department rule in addition to the requirements in ASME A17.1 section 8.6.5.14.1: Results of the relief valve setting and system pressure test shall be submitted to the department or agent municipality on approved forms.

Note: Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.

(c) *Hydraulic cylinders and pressure piping.* This is a department rule in addition to the requirements in ASME A17.1 section 8.6.5.14.2.: Results of the hydraulic cylinder and pressure piping tests shall be submitted to the department or agent municipality on approved forms.

Note: Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.

(d) *Remove from service.* An elevator that fails a test specified in ASME A17.1 sections 8.6.5.14.1 or 8.6.5.14.2 may not be issued a permit to operate and may not be returned to service until the elevator conforms with the testing requirements.

(e) *Additional tests.* These are department rules in addition to the requirements in ASME A17.1 section 8.6.5.14.3:

1. Additional tests shall be performed including the emergency communications, in accordance with ASME A17.1 section 8.6.4.19.15, and the means to restrict hoistway or car door opening, in accordance with ASME A17.1 section 8.6.4.19.16.

2. Where an auxiliary power lowering operation, in accordance with ASME A17.1 section 3.26.10, is installed as part of the standby or emergency power operation, a test shall be performed as part of the Category 1 test requirements.

(10) PERIODIC TEST REQUIREMENTS. (a) This is a department rule in addition to the requirements in ASME A17.1 section 8.6.5.16: Results of all Category 5 tests shall be submitted to the department or agent municipality on approved forms,

(b) This is a department rule in addition to the requirements in ASME A17.1 section 8.6.7.3.1: Where an elevator of the private-residence type or Part V type serves a commercial building and is equipped with a safety device that is subject to testing, the 5-year safety test in ASME A17.1 section 8.6.4.20.1 – and where applicable, the governor test in ASME A17.1 section 8.6.4.20.2 – shall be performed. The test results shall be

submitted to the department or agent municipality on an approved form.

Note: Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.

(11) SPECIAL PROVISIONS. (a) These are department rules in addition to the requirements in ASME A17.1 section 8.6.11:

1. The record of oil level and oil usage shall be kept quarterly, as part of the record of oil usage required under ASME A17.1 section 8.6.5.7.

2. The record of oil level and oil usage required under subd. 1. shall be included in the maintenance record.

(b) Substitute the following wording for the requirements in ASME A17.1 section 8.6.11.1: Elevators provided with firefighters' emergency operation shall be subjected quarterly by authorized personnel to Phase I recall by use of the key switch, and a minimum of one floor operation on Phase II where equipped. Deficiencies shall be corrected. A record of the findings shall be included in the maintenance record.

Note: Other federal and state laws may require certain facilities to perform at more frequent intervals.

(c) This is a department informational note to be used under ASME A17.1 sections 8.6.11.4 to 8.6.11.9:

Note: Written procedures as specified in these sections will not be evaluated by the department.

(12) ALTERNATIVE TEST METHOD REPORT. This is a department rule in addition to the requirements in ASME A17.1 section 8.6.11.10.4: Where a completed test report for a Category 5 test is required to be sent to the department or agent municipality, the alternative test method report shall be sent to the department or agent municipality.

(13) EXAMINATIONS AFTER EVENTS. This is a department rule in addition to the requirements in ASME A17.1 sections 8.6.11.11 to 8.6.11.14: A record of the findings shall be included in the maintenance record.

(14) PERMIT TO OPERATE - CATEGORY 1. Category 1 test results shall be valid for one permit to operate term, regardless of whether the test is valid for the purposes of ASME A17.1.

History: CR 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.17087 Alterations. (1) This is a department rule in addition to the requirements in ASME A17.1 section 8.7.2.8: Where sprinklers are added to an existing elevator machine room, machinery space, control room, control space, or top of hoistway, the installation shall comply with the requirements in ASME A17.1 section 8.7.2.28 (c) and (e), except as follows:

(a) Where the elevator already is equipped with Phase I and Phase II firefighters' emergency operation and the existing car operating panel will remain, the elevator is not required to have the firefighters' emergency operation functions on the car operating panel behind a locked cover, unless required by another part of ASME A17.1 section 8.7.

(b) Where the elevator already is equipped with a Phase I key switch of the bypass-off-on type, the key switch is not required to meet ASME A17.1 section 2.27.3.1 unless required by another part of ASME A17.1 section 8.7.

(2) Substitute the following wording for the requirements in ASME A17.1 section 8.7.2.14.1: Where an alteration consists of the installation of a new car, the installation shall conform to sections 2.14, 2.15, and 2.17.

(3) Substitute the following wording for the requirements in ASME A17.1 section 8.7.2.14.2 (i): Where an alteration consists of the installation of a car door or gate on an existing elevator car, the installation shall conform to 2.14.4, 2.14.5, and 2.14.6.

(4) Substitute the following wording for the requirements in ASME A17.1 section 8.7.2.16.4 (a): Car doors or gates shall be provided at all car entrances. Where new car doors or gates are installed, they shall conform to 2.14.4, 2.14.5, and 2.14.6.

(5) This is a department rule in addition to the requirements in ASME A17.1 section 8.7.2.17.1: Where an elevator is not equipped with Phase I and Phase II firefighters' emergency operation and an increase in rise results in travel of 25 feet or more above or below the designated level, the installation shall meet the requirements in ASME A17.1 sections 2.27.3 to 2.27.9 for the installation of firefighters' emergency operation.

(6) Substitute the following wording for the requirements in ASME A17.1 section 8.7.2.17.2 (b) (4): Car doors or gates shall be provided at all car entrances. Where new car doors or gates are installed, they shall conform to section 2.14.

(7) This is a department rule in addition to the requirements in ASME A17.1 section 8.7.2.28 (c): All elevators in the building equipped with firefighters' emergency operation shall conform to the requirements in ASME A17.1 section 2.27.8 for switch keys.

(8) This is a department rule in addition to the requirements in ASME A17.1 section 8.7.2.28 (d): All elevators in the building equipped with firefighters' emergency operation shall conform to the requirements in ASME A17.1 section 2.27.8 for switch keys.

(9) This is a department rule in addition to the requirements in ASME A17.1 section 8.7.3.8: Where sprinklers are added to an existing elevator machine room, machinery space, control room, control space, or top of hoistway, the installation shall comply with the requirements in ASME A17.1 section 8.7.3.31.8 (c) and (e), except as follows:

(a) Where the elevator already is equipped with Phase I and Phase II firefighters' emergency operation and the existing car operating panel will remain, the elevator is not required to have the firefighters' emergency operation functions on the car operating panel behind a locked cover, unless required by another part of ASME A17.1 section 8.7.

(b) Where the elevator already is equipped with a Phase I key switch of the bypass-off-on type, the key switch is not required to meet ASME A17.1 section 2.27.3.1 unless required by another part of ASME A17.1 section 8.7.

(10) These are department rules in addition to the requirements in ASME A17.1 section 8.7.3.22.1:

(a) Where an elevator is not equipped with Phase I and Phase II firefighters' emergency operation and an increase in rise results in travel of 25 feet or more above or below the designated level, the installation shall meet the requirements in ASME A17.1 section 8.7.3.31.8 (c) for the installation of firefighters' emergency operation.

(b) A decrease in travel shall conform to the requirements of ASME A17.1 section 3.4.3.

(11) This is a department rule in addition to the requirements in ASME A17.1 section 8.7.3.31.8 (c): All elevators in the building equipped with firefighters' emergency operation shall conform to the requirements in ASME A17.1 section 2.27.8 for switch keys.

(12) This is a department rule in addition to the requirements in ASME A17.1 section 8.7.3.31.8 (d): All elevators in the building equipped with firefighters' emergency operation shall conform to the requirements in ASME A17.1 section 2.27.8 for switch keys.

(13) Substitute the following wording for the requirements in ASME A17.1 section 8.7.4.1: Where any alteration is made to a rack-and-pinion elevator, the altered portion shall comply with section 4.1.

(14) Substitute the following wording for the requirements in ASME A17.1 section 8.7.4.2: Where any alteration is made to a screw-column elevator, the altered portion shall comply with section 4.2.

(15) The requirements in ASME A17.1 section 8.7.5.3 are not included as part of this chapter.

History: CR 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.17089 Code data plate. Substitute the following wording for the requirements in the introductory paragraph of ASME A17.1 section 8.9: ASME A17.1 section 8.9 contains requirements for all new equipment within the scope of this chapter.

History: CR 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.170810 Acceptance inspections and tests, general requirements. (1) PERSONS AUTHORIZED TO MAKE ACCEPTANCE INSPECTIONS AND TESTS. Substitute the following wording for the requirements in ASME A17.1 sections 8.10.1.1.1 and 8.10.1.1.3: All acceptance inspections shall be performed by licensed elevator inspectors.

(2) PERSONS INSTALLING OR ALTERING EQUIPMENT. This is a department rule in addition to the requirements in ASME A17.1 section 8.10.1.1.2: The installation may not be placed in service until authorized by the department or agent municipality.

(3) ACCEPTANCE TEST REPORTS. This is a department rule in addition to the requirements in ASME A17.1 section 8.10.1.1.5: The results of acceptance tests including those required to be witnessed by the licensed elevator inspector shall be recorded on forms of the department or agent municipality. Where witnessed, forms are not required to be submitted to the department or agent municipality.

Note: Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.

(4) REPLACEMENT OF SPEED GOVERNOR INSPECTION AND TEST REQUIREMENTS. This is a department rule in addition to the requirements in ASME A17.1 section 8.10.2.3.2 (f): Where a speed governor is replaced, in accordance with 8.6.3.6.1, tests shall be performed as specified in ASME A17.1 sections 8.10.2.2.2 (hh) and 8.6.4.20.2 (b).

(5) ELEVATORS USED FOR CONSTRUCTION. This is a department rule in addition to the requirements in ASME A17.1 section 8.10.5.10: The department may conduct a maximum of 2 billable construction use inspections in a 90-day period unless the department finds probable cause for additional inspections.

History: CR 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.170811 General requirements for periodic inspections and witnessing of tests. (1) PERSONS AUTHORIZED TO PERFORM PERIODIC INSPECTIONS AND TO WITNESS TESTS. Substitute the following wording for the requirements in ASME A17.1 sections 8.11.1.1 and 8.11.1.1.1: Licensed elevator inspectors performing periodic inspections shall comply with the applicable credentialing requirements in ch. SPS 305.

(2) PERSONS AUTHORIZED TO PERFORM PERIODIC TESTS. Substitute the following wording for the requirements in ASME A17.1 section 8.11.1.1.2 (a): Licensed or registered elevator personnel performing periodic inspections and tests under ASME A17.1 section 8.11 shall comply with ch. SPS 305. Licensed elevator inspectors may choose to witness tests.

(3) PERIODIC TEST REPORTS. Substitute the following wording for the requirements in ASME A17.1 section 8.11.1.1.2 (b): Results of required tests shall be reported by the person performing the test, on approved forms, where required.

Note: Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P.O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.

(4) PERIODIC INSPECTION AND TEST FREQUENCY. Substitute the following wording for the requirements in ASME A17.1 section 8.11.1.3:

(a) Periodic inspections shall be made at intervals not longer than one year.

(b) Except as provided in sub. (8), category 1 periodic tests shall be made at intervals not longer than one year.

(c) Category 3 periodic tests shall be made at intervals not longer than 3 years.

(d) Category 5 periodic tests shall be made at intervals not longer than 5 years.

(5) INSTALLATION PLACED OUT OF SERVICE. Substitute the following wording for the requirements in ASME A17.1 section 8.11.1.4:

(a) Placing a conveyance out of service shall include all of the following:

1. Removal of power feed lines from the load side terminals of the electrical disconnecting means.

2. Sealing of the disconnecting means in the open position.

3. Hoistway doors and access doors for an elevator, dumbwaiter, or material lift shall be permanently barricaded or mechanically fastened in the closed position with additional means. Only the landing where the car or platform is located may be secured by using the interlock.

Note: See ASME A17.1 section 8.1.3 for requirements relating to Group 2 security.

4. Securing the car and counterweights, where provided, to prevent either from falling due to suspension-member or equipment failure.

5. For escalators or moving walks, barricading of entrances to prevent access. Barricades shall be constructed in accordance with the building code.

6. Verification of compliance with subds. 1. to 4. by the department or agent municipality.

7. Written approval of the building code authority where a conveyance is part of a required accessible route in an occupied building.

(b) A conveyance placed out of service is no longer required to have periodic inspections or tests.

(c) Before the conveyance may be returned to service, a conveyance placed out of service shall have all applicable periodic inspections and tests performed, and shall meet the permit to operate requirements in s. SPS 318.1011.

(6) INSTALLATION CONVERTED TO A TYPE A MATERIAL LIFT. These are department rules in addition to the requirements in ASME A17.1 section 8.11.1.4:

(a) Converting an existing elevator to a type A material lift shall include all of the following:

1. Removal of in-car controls.

2. Installations of signs meeting ANSI Z535.4 or its equivalent stating "For Material Only. No Riders Permitted" at the hall controls and the former location of the car operating panel in letters not less than 1/2 inch in height and centered on the back wall of the car 72 inches above the car floor in letters not less than 2 inches in height.

3. Verification of compliance with subds. 1. and 2. by the department or agent municipality.

4. Written approval of the building code authority where the elevator is part of a required accessible route in an occupied building.

(b) A conveyance converted to a type A material lift is no longer required to have periodic inspections or tests.

Note: A type A material lift, although not regulated by the department, is still subject to federal or state regulations regarding occupational safety. Improper maintenance can result in injury or death for persons loading or unloading materials, maintaining equipment, or otherwise occupying the building.

(c) Converting a type A material lift back to a conveyance shall include complying with the permit-to-operate requirements in s. SPS 318.1011 and satisfactory completion of all applicable tests and inspections prior to returning the elevator to service.

(7) PERIODIC INSPECTION AND TESTS OF ESCALATORS AND MOVING WALKS. (a) *Clearance between step and skirt.* This is a department rule in addition to the requirements in ASME A17.1 section 8.6.8.2: Results of the clearance between the step and skirt shall be submitted to the department or agent municipality on approved forms.

(b) *Step/skirt performance index.* This is a department rule in addition to the requirements in ASME A17.1 sections 8.6.8.3.1 to 8.6.8.3.3: Results of the step/skirt performance index test shall be submitted to the department or agent municipality on approved forms.

Note: Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.

(8) PERIODIC TESTS OF DUMBWAITERS. Category 1 periodic tests of dumbwaiters shall be made at intervals of not longer than 5 years.

History: CR 19-118: cr. Register May 2020 No. 773, eff. 6-1-20; correction in (5) (a) 6. made under s. 35.17, Stats., Register May 2020 No. 773.

SPS 318.1709 Reference codes, standards, and specifications. (1) This is a department rule in addition to the requirements in ASME A17.1 Part 9: Any code or standard listed in section 9.1 without a specific year of issuance shall mean the published edition of that code or standard which was available on May 30, 2017, except where a different edition is specified directly or indirectly in the building code, that different edition applies.

(2) (a) Substitute chs. SPS 361 to 366 for the reference to ICC/ANSI A117.1 in ASME A17.1 section 9.1 and in any other ASME A17.1 section where that reference appears.

(b) Substitute ch. SPS 316 for the reference to NFPA 70 in ASME A17.1 section 9.1 and in any other ASME A17.1 section where that reference appears.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: cons. and renum. (1) (intro.) and (a) to (1) and am., r. (1) (b) Register May 2020 No. 773, eff. 6-1-20.

Subchapter V — Changes, Additions, or Omissions to ASME A18.1

SPS 318.1800 Platform lifts and stairway lifts. (1) GENERAL. Vertical platform lifts, inclined platform lifts, and stairway lifts shall be designed, constructed, installed, operated, maintained, tested, and inspected in accordance with ASME A18.1, except as otherwise provided in this chapter.

Note: The commercial building code, chapters SPS 361 to 366, establishes standards for buildings and components that may be associated with platform lifts and stairway lifts, including ramps, ramp slopes, stairway egress width, and the location, clearances, or position of controls for people with disabilities.

(2) CHANGES, ADDITIONS, AND OMISSIONS. Changes, additions, or omissions to ASME A18.1 are specified in this subchapter and are rules of the department and are not requirements in ASME A18.1.

Note: The sections in this chapter are generally numbered to correspond with the section numbering in ASME A18.1. For example, section SPS 318.1801 corresponds to ASME A18.1 Section 1.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1801 Scope, application, and definitions. (1) SCOPE AND APPLICATION. Substitute the following informational note for the requirements in ASME A18.1 section 1.1:

Note: See sections SPS 318.1002 and 318.1003 for scope and application requirements.

(2) DEFINITIONS. (a) Substitute the following definitions for the corresponding definitions specified in ASME A18.1 section 1.3:

1. "Authority having jurisdiction" means the department of safety and professional services, except as designated under s. SPS 318.1012.

2. "Building code" means chs. SPS 361 to 366.

(b) This definition is in addition to the definitions in ASME A18.1 section 1.3: "Periodic inspection and tests" means routine inspection and tests plus additional detailed examination and operation of equipment at specified intervals to check for compliance with the applicable requirements.

(3) REFERENCE CODES, STANDARDS, AND SPECIFICATIONS. (a) This is a department rule in addition to the requirements in ASME A18.1 section 1.5: Any code or standard listed in Table 1.5-1 without a specific year of issuance shall mean the published edition of that code or standard which was available on August 3, 2017, except where a different edition is specified directly or indirectly in the building code.

(b) Substitute ASME A17.1–2016 for the ASME A17.1 reference in ASME A18.1 Table 1.5-1.

(c) Substitute ch. SPS 316 for the reference to NFPA 70 in ASME A18.1 Table 1.5-1 and in any other ASME A18.1 section where that reference appears.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: renum. (2) (intro.), (a), (b) to (2) (a) (intro.), 1., 2., renum. (2) (c) to (2) (b) and am., am. (3) (a), (b) Register May 2020 No. 773, eff. 6-1-20.

SPS 318.1802 Vertical platform lifts. (1) RUNWAY ENCLOSURE PROVIDED. (a) This is a department rule in addition to the requirements in ASME A18.1 sections 2.1.1.2 and 2.1.1.3: The clearance between the platform and the glazing in a fire-rated runway door shall be not more than 1 1/4 inches. The

shear condition at the top of any glazing in the door shall be beveled at not less than 45 degrees.

(b) This is a department rule in addition to the requirements in ASME A18.1 section 2.1.1.7: Where the platform enclosure extends less than 79 inches above the platform, the horizontal clearance between the platform enclosure on a side not containing an entrance and the adjacent runway enclosure wall or the vertical surface of the machine tower may not exceed 4 inches. The horizontal clearance between the platform enclosure and the runway enclosure walls on either side of the machine tower may not exceed 12 inches. These maximum clearances do not apply to spaces above the machine tower or to any point more than 42 inches above the top landing.

(2) PARTIAL RUNWAY ENCLOSURE PROVIDED. (ag) This is a department rule in addition to the requirements in ASME A18.1 sections 2.1.1.2 and 2.1.1.3: Where the lift side of the door and sill present a smooth surface located not closer than 3/8 inch and not more than 3/4 inch from the access edge of the platform floor, the clearance between the edge of the platform floor and the glazing in a fire-rated runway door may not be more than 1 1/4 inches. The shear condition at the top of any glazing in the door shall be beveled at not less than 45 degrees.

(ar) This is a department rule in addition to the requirements in ASME A18.1 section 2.1.2.1: Where the platform enclosure extends less than 79 inches above the platform, the horizontal clearance between the platform enclosure on a side not containing an entrance and the adjacent runway enclosure wall or the vertical surface of the machine tower may not exceed 4 inches. The horizontal clearance between the platform enclosure and the runway enclosure walls on either side of the machine tower may not exceed 12 inches. These maximum clearances do not apply to spaces above the machine tower or to any point more than 42 inches above the top landing.

(b) This is a department rule in addition to the requirements in ASME A18.1 section 2.1.2.3: Where the lift side of the door and sill present a smooth surface located not closer than 3/8 inch and not more than ¾ inch from the access edge of the platform floor, the clearance between the edge of the platform floor and the glazing in a fire-rated runway door shall be not more than 1¼ inches. The shear condition at the top of any glazing in the door shall be beveled at not less than 45 degrees.

(3) RUNWAY ENCLOSURE NOT PROVIDED. This is a department rule in addition to the requirements in ASME A18.1 section 2.1.3: Lifts without runway enclosures shall meet the building code, specifically for any unguarded space below the lift platform of more than 27 inches above the floor.

(3m) RELOCATABLE LIFTS. The requirements of ASME A18.1 section 2.1.5 are not included as part of this chapter.

(4) RAMPS. (a) Substitute the following wording for the requirements in ASME A18.1 section 2.1.7.1: Ramps, where provided, shall be in accordance with the building code.

Note: A surface steeper than 1:48 within the wheelchair-maneuvering clearances that are required by the building code at a lift entrance are also required by the building code to have a power-opening entrance, with clearances to the lift call and door-opener button also meeting the building code.

(b) Substitute the following wording for the requirements in the last sentence and pars. (a) to (e) of ASME A18.1 section 2.1.7.2: When in use, the inclination of retractable ramps shall be in accordance with the building code.

(5) SIZE OF END ENTRANCE PLATFORMS. Substitute the following wording for the requirements in ASME A18.1 section 2.6.5: Platform lifts shall have a minimum clear width of 36 inches and a minimum clear length of 54 inches. For lifts complying with ASME A18.1 sections 2.1.1, 2.1.2, and 2.1.3, the net inside floor area may not exceed 18 square feet. For lifts complying with ASME A18.1 section 2.1.4, the net inside floor area may not exceed 25 square feet. Platform lift controls and the required grab rail or grab bar may not project more than 4 inches from the platform side wall measured between a minimum of 30 inches to a maximum of 48 inches above the platform floor.

(6) ILLUMINATION. Substitute the following wording for the requirements in ASME A18.1 section 2.6.6.3: An auxiliary illumination source shall be provided to give general illumination of not less than 0.2 foot candles on the floor and controls. The auxiliary illumination system shall function according to all of the following:

(a) Activate when normal illumination fails.

(b) Utilize not less than 2 lamps of approximately equal intensity.

(c) Provide illumination of at least 0.2 foot candles for at least 90 minutes if the lift is designed and installed to operate normally for at least 2 cycles up and down after the lift's main power fails.

(d) Provide illumination of at least 0.2 foot candles for at least 4 hours if the lift is not designed and installed to operate normally for at least 2 cycles up and down after the lift's main power fails.

(7) LIMITATION ON LOAD SPEED AND TRAVEL. Substitute the following wording for the requirements in the first and second sentences of ASME A18.1 section 2.7.1: Platforms with a floor area of 18 square feet or less shall have a rated load of not less than 750 pounds.

(8) OPERATING DEVICES. Substitute the following wording for the requirements in ASME A18.1 section 2.10.1: Operation of the lift from the landings and platform shall be controlled by continuous-pressure-type switches. The operating devices shall be designed so that both the up and down circuits cannot be operated at the same time.

Note: See the building code for requirements relating to accessible controls, operation, and signage.

(9) MANUAL OPERATION. Substitute the following wording for the requirements in ASME A18.1 section 2.10.10: A vertical platform lift which is not connected to a building's standby or emergency power and which is not equipped with rechargeable battery power capable of cycling the lift under full load for at least 2 cycles after normal building power is removed shall be provided with a means to manually raise or lower the platform to a landing. The means shall be operable only by lift personnel, and from a landing, without working directly over the platform.

(10) EMERGENCY SIGNALS. (am) These are department rules in addition to the requirements in ASME A18.1 sections 2.11, 2.11.1, and 2.11.3:

1. A vertical platform lift installed outdoors shall have an emergency signaling device provided in accordance with the requirements in ASME A18.1 sections 2.11.1 and 2.11.3, with a sound pressure rating of not less than 80 decibels nor greater than 90 decibels at 10 feet away. The signal shall respond without delay when the switch is activated.

2. A vertical platform lift installed indoors in a building that is staffed 24 hours per day shall have a signaling device provided in accordance with ASME A18.1 sections 2.11.1 and 2.11.3, which is audible at 10 decibels minimum above ambient

sound, at a continuously-staffed location. The signal shall respond without delay when the switch is activated.

(bm) Substitute the following wording for the requirements in ASME 18.1 section 2.11.2: A vertical platform lift meeting the requirements in ASME A18.1 sections 2.1.1, 2.1.2, or 2.1.3 that is installed indoors in an area which is not visible to personnel at all times shall have emergency signaling devices provided in accordance with the requirements in ASME A18.1 section 2.11.1 and ASME A17.1 sections 2.27.1.1.1 to 2.27.1.1.3 and 2.27.1.1.5 except "in the elevator" and "in the car" mean "on the platform.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: renum. (2) (a) to (2) (ar), cr. (2) (ag), am. (2) (b), cr. (3m), am. (4) (a), (b), cons. and renum. (5) (intro.) and (a) to (5) and am., r. (5) (b), am. (9), renum. (10) (intro.), (a), (b), (c) to (10) (am) (intro.), 1., 2., (bm) and, as renumbered, am. (10) (am) (intro.), (bm) Register May 2020 No. 773, eff. 6-1-20.

SPS 318.1803 Inclined platform lifts. (1) RUNWAYS. Substitute the following wording for the requirements in ASME A18.1 section 3.1.1: Inclined platform lifts shall be installed so that the necessary means of egress is maintained as required in the building code. For new installations, the egress width shall be measured with the inclined platform lift in the unfolded, usable position. For replacement of a previously approved inclined platform lift, the egress width may remain as it has been with the original lift in place, but may not be reduced by the replacement.

(2) LOWER LEVEL ACCESS RAMPS AND PITS. (a) Substitute the following wording for the requirements in ASME A18.1 section 3.1.4.1: Ramping inclinations for floor-mounted ramps shall be in accordance with the building code.

Note: Under the building code, a floor surface steeper than 1:48 within the required wheelchair-maneuvering clearances at a lift entrance is a ramp, and a lift entrance at a ramp must have a power-opening device. Clearances to the lift call and door-opener button must also meet the building code.

(b) Substitute the following wording for the requirements in the last sentence and pars. (a) to (e) of ASME A18.1 section 3.1.4.2: When in use, the inclination of retractable ramps shall be in accordance with the building code.

(3) OPERATING DEVICES. Substitute the following wording for the requirements in A18.1 section 3.10.1: Operation of the lift from the landings and platform shall be controlled by continuous-pressure-type switches. The operating devices shall be designed so that both the up and down circuits cannot be operated at the same time.

Note: See the building code for requirements relating to accessible controls, operation, and signage.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1804 Inclined stairway chair lifts. Substitute the following wording for the requirements in ASME A18.1 section 4.1.1: Stairway chairlifts shall be installed so that the required means of egress is maintained as required in the building code. For new installations, the egress width shall be measured with the stairway chair lift in the unfolded, usable position. For replacement of a previously approved stairway chair lift, the egress width may remain as it has been with the original lift in place, but may not be reduced by the replacement.

Note: Stairway chairlifts complying with this section may be installed as a convenience for individuals but are not recognized by the building code as providing accessibility due to the inability of a wheelchair user to use them without assistance.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1808 Hydraulic driving means. These are department rules in addition to the requirements in ASME A18.1 section 8.1:

(1) SHUTOFF VALVE. (a) A manually operated shutoff valve shall be provided between the hydraulic pump unit and the hydraulic cylinder.

(b) For a lift with a machine room, the shutoff valve under par. (a) shall be located inside the machine room and adjacent to the hydraulic pump unit.

(2) PUMP RELIEF VALVE. (a) *General.* Each pump or group of pumps shall be equipped with one or more relief valves conforming to all of the following, except as specified in par. (b):

1. Be located between the pump and the check valve.

2. Be of such a type and so installed in the bypass connection, that the valve cannot be shut off from the hydraulic system.

3. Be of sufficient size, individually or accumulatively, to pass the maximum rated capacity of the pump without raising the pressure more than 50% above the working pressure. Two or more relief valves may be used to obtain the required capacity.

4. Be sealed after being set to the correct pressure.

(b) *No relief valve.* A relief valve is not required for centrifugal pumps driven by induction motors, provided the shut-off, or maximum pressure that the pump can develop, is not greater than 135% of the working pressure at the pump.

(3) CHECK VALVE. A check valve shall be provided that will hold the platform lift with the rated load at any point if either of the following occurs:

(a) The pump stops and the down valves are closed.

(b) The maintained pressure drops below the minimum operating pressure.

(4) PRESSURE-GAUGE FITTINGS. A pressure-gauge fitting with a shutoff valve shall be provided at either of the following locations:

(a) On the cylinder side of the check valve.

(b) Immediately adjacent to the hydraulic control valve.

(5) TYPE TESTS, CERTIFICATION, AND MARKING PLATES FOR CONTROL VALVES. (a) *Engineering tests and certification process.* Each type or model and make of a hydraulic control valve shall be subjected to the engineering tests and to the certification process specified in ASME A17.1 section 8.3.5, except ASME A17.1 section 8.3.5.3.1 does not apply.

(b) *Hydraulic controls.* Hydraulic control valves shall be plainly marked in a permanent manner with all of the following information:

1. The certifying organization's name or identifying symbol.

2. The name, trademark, or file number by which the organization that manufactured the product can be identified.

3. Type designation.

4. Component-rated pressure.

5. Electrical coil data.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1809 Rope sockets. This is a department rule in addition to the requirements in ASME A18.1 section 9.8: Where wedge rope sockets are provided, they shall conform to the requirements in ASME A17.1 section 2.20.9.5.

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14.

SPS 318.1810 Routine, periodic, and acceptance inspections and tests. **(1)** INSPECTORS. The requirements in ASME A18.1 sections 10.1.1 to 10.1.4 are not included as part of this chapter.

Note: See s. SPS 318.1011 for additional requirements relating to inspections

(2) APPLICABILITY OF INSPECTION AND TEST REQUIREMENTS. Substitute the following wording for the requirements in ASME A18.1 section 10.1.5: Inspections and tests required by subs. (4) to (8) are to determine whether the equipment conforms to whichever of the following are applicable:

(a) The standard in effect on the contract date for the original installation.

(b) For altered components, the standard in effect on the contract date for the alteration.

(3) INSTALLATION PLACED OUT OF SERVICE. Substitute the following wording for the requirements in ASME A18.1 section 10.1.6:

(a) When an installation is placed out of service, all of the following requirements shall be met:

1. The power feed lines shall be disconnected from the machine disconnect switch or equivalent.

2. For a vertical platform lift, the doors or gates shall be secured against opening.

3. The department or agent municipality shall be notified.

4. The department or agent municipality may inspect the lift and charge an inspection fee.

5. Periodic inspections and tests may be discontinued while a lift is out of service.

6. Written approval of the building code authority where a conveyance is part of a required accessible route in an occupied building.

(b) Before the lift may be placed back into service, all applicable inspections and tests shall be performed as required by subs. (2) and (4) to (8), and the permit-to-operate requirements in s. SPS 318.1011 shall be met.

Note: The building code may prohibit placing a vertical or inclined platform lift out of service where used by persons with disabilities. Consult with a building inspector for written permission prior to placing it out of service.

(4) ROUTINE INSPECTIONS AND TESTS. Substitute the following wording for the requirements in ASME A18.1 section 10.2.1: Routine inspections and tests of sections 2 and 3 lifts shall be performed at intervals of not longer than one year. Routine inspections and tests of section 4 lifts shall be performed at intervals of not longer than 3 years.

(5) INSPECTIONS AND TEST REQUIREMENTS. Substitute the following wording for the requirements in ASME A18.1 section 10.2.2: Routine inspections shall include the applicable items listed in ASME A18.1 sections 10.2.2.1 to 10.2.2.4. Where an inspection reveals a need for a test to be conducted, the licensed elevator inspector may order the test.

(6) PERIODIC INSPECTIONS AND TESTS. Substitute the following wording for the requirements in ASME A18.1 section 10.3: Periodic inspections shall be performed at the same time as routine inspections. Where an inspection reveals a need for a test to be conducted, the inspector may order the test.

(7) FIVE-YEAR INSPECTION AND TEST REQUIREMENTS. (a) This is a department rule in addition to the requirements in ASME A18.1 section 10.3.3.1: Where a lift is equipped with a safety device that is subject to testing, the 5-year safety test – and where applicable, the governor test in ASME A18.1 section 10.3.3.2 – shall be performed. The test results shall be submitted to the department or agent municipality on an approved form.

Note: Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.

(b) This is a department rule in addition to the requirements in ASME A18.1 section 10.1.3: The hydraulic control valves shall be tested in accordance with the requirements in ASME A17.1 8.10.3.2.2 (v).

(c) Substitute the following wording for the requirements in ASME A18.1 subsection 10.3.3.1 (b): For Type A safeties and Type A safety parts of Type C safeties, there shall be sufficient travel of the safety rollers or dogs remaining after the test to bring the platform and its rated load to rest on safety application at governor tripping speed. A metal tag shall be attached to the lift tower in a permanent manner that is readily visible to inspectors without disassembly, giving the date of the safety test together with the name of the person or firm who performed the test.

(8) INSPECTION AND TEST REQUIREMENTS FOR ALTERED INSTALLATIONS. Substitute the following wording for the requirements in ASME A18.1 section 10.5: Where an alteration is made to an existing installation, the affected components shall comply with the applicable portions of ASME A18.1 sections 2 to 4, 8, and 9.

Note: Where plan submittal and approval and inspections are required under Table SPS 318.1007-4, inspections and tests are required as specified in subsection (2).

History: CR 14-020: cr. Register August 2014 No. 704, eff. 9-1-14; CR 19-118: cr. (3) (a) 6., am. (4), (5), renum. (7) to (7) (a), cr. (7) (b), (c) Register May 2020 No. 773, eff. 6-1-20.

SPS 318.1811 Maintenance logs. **(1)** WEEKLY OPERATION PROCEDURE. The requirements in ASME A18.1 section 11.1.2 (c) are not included as part of this chapter.

(2) ON-SITE DOCUMENTATION. This is a department rule in addition to the requirements in ASME A18.1 part 11.3: For a lift having an inspection and test panel, the inside cover of the inspection and test panel shall provide instructions for locating the on-site documentation. Instructions shall be permanently legible with lettering not less than 1/8 inch in height.

History: CR 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

Subchapter VI — Changes, Additions, or Omissions to ANSI E1.42

SPS 318.4200 Entertainment technology. **(1)** GENERAL. Orchestra pit lifts shall be designed, constructed, installed, operated, maintained, tested, and inspected in accordance with ANSI E1.42, except as otherwise provided in this subchapter.

(2) CHANGES, ADDITIONS, AND OMISSIONS. Changes, additions, or omissions to ANSI E1.42 are specified in this subchapter and are rules of the department and are not requirements in ANSI E1.42.

Note: The sections in this subchapter are generally numbered to correspond with the chapter numbering in ANSI E1.42. For example, section SPS 318.4201 corresponds to ANSI E1.42 Chapter 1.

(3) RETROACTIVITY. The operation, testing, maintenance, and periodic inspection requirements of this subchapter apply to all orchestra pit lifts existing prior to June 1, 2020.

(4) PIT ACCESS. Orchestra pit lifts installed after June 1, 2020, in accordance with this subchapter shall include a means to access the pit for use when the lift is at the lowest landing.

(5) STAGE FALL PROTECTION PLAN. An orchestra pit lift owner shall develop and implement a protection plan to address the hazard of stage edge falls.

Note: An example of a stage edge fall protection plan is available in ANSI E1.42 Annex B.

History: CR 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.4201 Scope and application. (1) The statement in ANSI E1.42 section 1.1.1.1 is not included as part of this subchapter.

(2) This is a department rule in addition to the requirements in ANSI E1.42 section 1.1.2: This subchapter covers the design, construction, operation, inspection, testing, maintenance, alteration, and repair of orchestra pit lifts and the associated parts, rooms, spaces, and hoistways.

(3) This is a department rule in addition to the requirements in ANSI E1.42 section 1.1.4: An orchestra pit lift that is not covered by this subchapter shall be subject to s. SPS 318.1700 (1).

History: CR 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.4202 Reference codes, standards, and specifications. Substitute the following requirement for ANSI E1.42 section 2.1: All references listed in ANSI E1.42 section 2.2 are informational only and are not requirements of this subchapter.

History: CR: 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.4203 Definitions. (1) Substitute the following definitions for the corresponding definitions specified in ANSI E1.42 chapter 3:

(a) "Authority having jurisdiction" means the department of safety and professional services, except as designated under s. SPS 318.1012.

(b) "Lifting load" means the load that the equipment is designed and installed to lift at the rated speed.

(c) "Qualified person" means one who is licensed for the corresponding work by the department under s. SPS 305.991.

(d) "Static load" means the live load that the orchestra pit lift is designed and installed to support while the lift platform is not in motion as provided by the manufacturer upon installation or as approved by the department.

(2) This is a department definition in addition to the definitions in ANSI E1.42 chapter 3: "Orchestra pit lift" has the meaning given in s. SPS 318.1004 (10) (g).

History: CR 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.4204 Design requirements. (1) Substitute the following wording for the requirements in ANSI E1.42 section 4.3.3: The horizontal gaps between the edges of the lift platform floor and fixed floors shall be greater than zero, in order to avoid direct contact, and not greater than 3/4 inch.

(2) This is a department rule in addition to the requirements in ANSI E1.42 section 4.1.4.1: The means of stopping and preventing unintended movement of the lift platform shall be tested at 100% of rated load.

(3) Substitute the following wording for the requirements in ANSI E1.42 section 4.1.4.1.2: An inherently self-locking gear reducer or actuator that resists motion by a restraining force 150% or greater than the applied force may be permitted for use as secondary means against uncontrolled or unintended movement, where available from the manufacturer. Where the secondary means is installed, it shall be inspected by a qualified person.

(4) This is a department rule in addition to requirements in ANSI E1.42 section 4.3.3.1: The horizontal gaps shall be measured between the edge of the lift platform surface and the edge of the fixed floor.

(5) This is a department rule in addition to requirements in ANSI E1.42 section 4.6.1: The illumination levels shall be a minimum of 19 foot candles at the controller with the door open or closed, at the main disconnect location, and at the drive machines. The remainder of the pit floor shall be a minimum of 10 foot candles, including at access levels, the route to controller and disconnect location, and any other Group 2 areas, in accordance with ASME A17.1, section 2.2.5, as applicable.

History: CR 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.4205 Control systems. (1) This is a department informational note to be used under ANSI E1.42 section 5.1.3:

Note: See s. SPS 316.620 and NEC 620 for additional requirements.

(2) Substitute the following wording for the requirements in ANSI E1.42 section 5.5.4: When actual and stored position data differ, setting or restoring position data for the lift shall only be done by qualified or competent persons.

(3) Substitute the following wording for the requirements in ANSI E1.42 section 5.6.1.2: The circumstances requiring the override shall be investigated by a competent person before an override is engaged and may only be performed by an authorized person in communication with the operator. Override devices shall be located in a position so as to provide the authorized person a clear line of sight to the condition requiring the override. Indicators at all operator positions shall change state to inform the operator that the override has been engaged. The override device may not initiate motion without the direct action of the lift operator and shall limit speed and direction of travel while engaged.

History: CR: 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.4206 Safety systems. (1) This is a department rule in addition to requirements in ANSI E1.42 section 6.3.1.2: Suitable active guarding mechanisms shall be per manufacturer's recommendations or as approved by the department.

(2) This is a department rule in addition to requirements in ANSI E1.42 section 6.4.6: The emergency unlocking or unlatching release systems shall be accessible only to competent persons.

History: CR: 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.4207 Installation and inspections. (1) Substitute the following for the requirements in ANSI E1.42 section 7.1.1: Orchestra pit lifts shall be tested in accordance with the applicable criteria in ASME A17.1 section 8.6.

(2) The requirement in ANSI E1.42 section 7.1.4 is not included as part of this subchapter.

(3) Substitute the following for the requirements in ANSI E1.42 section 7.2.2: Compliance testing may be observed by the department.

(4) Substitute the following wording for the requirements in ANSI E1.42 section 7.9.7.5: Any additional issues as identified by the manufacturer's instructions or noted by the department during previous inspections.

(5) These are department rules in addition to requirements in ANSI E1.42 chapter 7:

(a) Periodic inspections shall be made at intervals not longer than one year.

(b) Periodic tests in conformance with ANSI E1.42 sections 7.3, 7.4, 7.5, and 7.8 shall be made at intervals not longer than one year.

(c) Periodic tests in conformance with ANSI E1.42 sections 7.6, 7.7, 7.9, and 7.10 shall be made at intervals not longer than 5 years.

History: CR: 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

SPS 318.4208 Operation, maintenance, and repair.

(1) Substitute the following wording for the requirements in ANSI E1.42 section 8.1.2: A written record of all trainings for competent persons and authorized persons, including the names of the competent persons, the names of the authorized persons, the names and affiliations of the trainers, and the dates of any training received from the trainers shall be maintained and shall be made available for inspection on request.

(2) Substitute the following wording for the requirements in ANSI E1.42 section 8.2.4: If a fault, malfunction, damage, unusual sound, or other unusual performance of the orchestra pit lift occurs, then the operator shall stop the lift and evaluate the lift status. If corrective action cannot be taken within the authority of the operator, then the lift shall be taken out of service and referred to a competent person. Any such event and resulting actions shall be reported in accordance with section 8.3.4.

(3) Substitute the following wording for the requirements in ANSI E1.42 section 8.3.3: For new installations, the initial maintenance control program shall be provided by the equipment manufacturer. For existing equipment undergoing any alteration, repair, or replacement, the maintenance control program for the altered, repaired, or replaced components shall be provided by the person or firm performing the work. The maintenance control program shall be made available at the scheduled time for service, tests, or inspection.

(4) This is a department rule in addition to requirements in ANSI E1.42 section 8.3.4: A paper copy of the record shall be available.

(5) Substitute the following wording for the requirements in ANSI E1.42 section 8.4.1.2: Alterations and repairs to orchestra pit lifts manufactured to this standard shall be performed or supervised by qualified persons, in accordance with s. 101.984, Stats.

(6) Substitute the following wording for the requirements in ANSI E1.42 section 8.4.6.1: Orchestra pit lifts subject to this subchapter shall be inspected and operationally tested in accordance with ANSI E1.42 by a qualified person after any alterations, replacements, or repairs listed in table SPS 318.1007-1, as applicable. An orchestra pit lift may not be returned to service until it is in compliance with ANSI E1.42 section 8.4.6.

History: CR: 19-118: cr. Register May 2020 No. 773, eff. 6-1-20.

CODE	2019	2022		DSPS Comment	Council Comment
SECTION	TEXT	TEXT			
	Changes to Definitions				
Section 1.3 Definitions	Door locked detection means		**door locked detection means:** an electrical protective device, the function of which is to prevent operation of the driving machine by the normal operating device unless the door is locked in the closed position.	2.26.1.5	
Section 1.3 Definitions	Dynamic braking		**dynamic braking:** use of the motor and active motor control to effect the controlled deceleration of a load.	2.26.9.2, 2.26.9.7 for traction elevators, about 40 more for escalators and moving walks	
Section 1.3 Definitions	Executable software		**executable software:** a set of machine-readable instructions native to a computing device that performs specific tasks.	2.26.1.7, 3.26.11, 8.6.1.2.2, 8.6.4.23, 8.7.1.10	
Section 1.3 Definitions	Fire service access elevator		**Fire Service Access Elevator (FSAE):** an elevator equipped for use by emergency personnel that is required by some building codes in high-rise buildings and has special requirements, including identification, specified by those building codes.	2.27, 2.27.10	
Section 1.3 Definitions		Flood elevation	**flood elevation:** the base flood elevation (BFE) or the design flood elevation (DFE) as specified in ASCE/SEI 24, Table 7-1 and ASCE/SEI 24, Section 7.5.	2.2.9, 2.27.3, 2.27.13, 2.28.1 (n), 3.27.5, 3.28 (p)	
Section 1.3 Definitions	Manual reset, private residence elevator		**manual reset, private residence elevator:** a means, not accessible to the occupants or authorized personnel, requiring on-site intervention by elevator personnel prior to restarting the elevator. **manually (manual) reset, elevator:** *(a)* a type or feature of an elevator part or component that, when actuated, requires intervention of a person in order to reinstate it to its nonactuated state. *(b)* a type of action required to be taken by a person to reinstate an elevator part or component from an actuated state to its nonactuated state.		
Section 1.3 Definitions		Power, emergency or stanby	**power, emergency or standby:** a source of power, independent from the normal building power, which may be derived from another utility, or from engine and generator or other building utility source that is switched to the elevator equipment when the normal building power fails. NOTE: For additional details on emergency and standby power systems see NFPA 110.	61 instances	
Section 1.3 Definitions		Power, mainline	**power, main line:** building power, whether normal, emergency, or standby, that is supplied to the elevator electrical equipment through a main line disconnecting means.	18 instances	
Section 1.3 Definitions		Power, normal building	**power, normal building:** the utility power distributed throughout the building and made available for normal usage by the elevator electrical equipment.	27 instances	
Section 1.3 Definitions		Power supply, auxiliary	**power supply, auxiliary:** a source of backup power to support an elevator system or subsystem that is provided with the elevator and is intended to supply the designated electrical load for a limited period of time and provide limited performance.	39 instances	

CODE	2019	2022		DSPS Comment	Council Comment
SECTION	TEXT	TEXT			
Section 1.3 Definitions	Relocation, escalator or moving walk		**relocation, escalator or moving walk:** the movement of the escalator or moving walk from one wellway or pit to another wellway or pit, or the act of securing the escalator or moving walk to different bearing plates or supports.		
Section 1.3 Definitions		Remote interaction operation (RIO)	**remote interaction operation (RIO):** any operation where signals are exchanged between an elevator and off-site systems.	19 instances	
Section 1.3 Definitions		Security level rated	**security level rated:** an elevator control system or component that is rated to a security level in accordance with the applicable requirements in IEC 62443-2-4, IEC 62443-3-3, IEC 62443-4-1, and IEC 62443-4-2.	8.14.1 (a) (2) (-a), 8.14.1 (a) (2) (-b)	
Section 1.3 Definitions	Software-based parameters		**software-based parameters and/or variables:** values that set application-specific data.	2.26.1.7.2, 3.26.11.2	
Section 1.3 Definitions		Test enable device	**test enable device (TED):** a device in the test enable operation that places an elevator in a mode with electrical protective devices made ineffective for purposes of testing, maintenance, troubleshooting, repair, replacement, or rescue.	15 instances	
Section 1.3 Definitions		Test enable operation	**test enable operation:** an operation used for troubleshooting, maintenance, repair, adjustments, rescue, testing, and inspection.	44 instances	
Section 1.3 Definitions		Test initiating means	**test initiating means:** a means [e.g., test tool, keypad, switch(es)] used to request selected electrical protective devices to be rendered ineffective by test enable operation and to initiate it for the purpose of testing.	25 instances	
Section 1.3 Definitions	Unique software identifier		**unique software identifier (USI):** descriptor that allows distinguishing among versions of executable software.	2.26.1.7.1	
Section 1.3 Definitions	Valve, manually (manual) operated		**valve, manually (manual) operated:** a type of mechanical or electromechanical valve requiring an action to be taken by a person to change the state (opened or closed) of the valve.	3.19.4.4	

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment	Council Comment
2.1.1.5		**2.1.1.5 Strength of Enclosure.** The hoistway enclosure adjacent to a landing opening shall be of sufficient strength to maintain, in true lateral alignment, the hoistway entrances. Operating mechanisms and locking devices shall be supported by the building wall, if load-bearing, or by other building structure. Adequate consideration shall be given to pressure exerted on hoistway enclosures as a result of windage and elevator operation. The building structural supports of the entrance, such as building beams, walls, and floors, shall be designed to withstand the horizontal forces stipulated in 2.11.11.8, 2.11.12.4.6 or 2.11.13.3.5, whichever is applicable.	No comment	
2.1.7		**2.1.7 Illumination of Hoistways** Permanent lighting shall be provided to illuminate the hoistway. The hoistway lighting shall provide an illumination of not less than 50 lx (5 fc), excluding shadows created by car or components, measured at the center of the car top throughout travel of the car when the car top lights (see 2.14.7.1.4) are off and all hoistway doors are closed. The lighting component(s) shall be guarded where necessary to prevent contact or accidental breakage. All lighting components requiring maintenance or service shall be located within safe and convenient access from the car top. The location shall be identified on the layout drawing (2.28.1(m)).	No difficulty in complying per DSPS Electrical program	
2.1.7.1		**2.1.7.1** The lighting shall conform to the following:	No difficulty in complying per DSPS Electrical program	
2.1.7.1.1		**2.1.7.1.1** Light switches (manual control) for the hoistway lighting shall be located within the hoistway enclosure and accessible from; (a) the pit access door (b) the top landing.	No difficulty in complying per DSPS Electrical program	
2.1.7.1.2		**2.1.7.1.2** The light switches for illumination of pits (see 2.2.5.3) and for illumination of machinery space in the hoistway (see 2.7.9.1) shall be permitted to be used as the light switch required by 2.1.7.1.1(a) and (b) respectively.	No difficulty in complying per DSPS Electrical program	
2.1.7.1.3		**2.1.7.1.3** The hoistway lighting shall automatically turn on when: (a) the hoistway access enable switch for any car in the hoistway (see 2.12.7.3.2) is in the "ENABLE" position (b) an inspection operating device for any car in the hoistway (see 2.26.1.4.1) is in the "INSPECTION" position (c) Firefighters' Emergency Operation is in effect (see 2.27.3 and 2.27.4)	No difficulty in complying per DSPS Electrical program	
2.1.7.1.4		**2.1.7.1.4** The light switches shall not turn off the hoistway lighting when any of the conditions in 2.1.7.1.3 are in effect.	No difficulty in complying per DSPS Electrical program	
2.1.7.1.5		**2.1.7.1.5** Control signal(s) shall be provided to the building system for lighting the hoistway when any of the conditions in 2.1.7.1.3 are in effect.	No difficulty in complying per DSPS Electrical program	
2.1.7.2		**2.1.7.2** If the building is equipped with emergency or standby power, the hoistway lighting shall be on the same emergency power system as the elevator equipment.	No difficulty in complying per DSPS Electrical program	
2.1.3.2	Editorial revision			
2.2.2.3			**SPS 318.1702 (1) (a)** No change	
2.2.4.2		**2.2.4.2** There shall be installed in the pit of each elevator, where the pit extends more than 900 mm (35 in.) below the sill of the pit access door (lowest hoistway door or separate pit access door), a fixed vertical ladder of noncombustible material, located within reach of the access door. The ladder is permitted to be retractable or nonretractable. Nonretractable ladders, where provided, shall conform to 2.2.4.2.1 through 2.2.4.2.~~6~~7. Retractable ladders, where provided, shall conform to 2.2.4.2.1 through 2.2.4.2.3 and 2.2.4.2.5, ~~through~~ 2.2.4.2.6, 2.2.4.2.8 and 2.2.4.2.9. When in the extended position, retractable ladders shall conform to 2.2.4.2.4.	No comment	
2.2.4.2.2		**2.2.4.2.2** The ladder rungs, cleats, or steps shall be a minimum of 400 mm (16 in.) wide. ~~When obstructions are encountered, the width shall be permitted to be decreased to less than 400 mm (16 in.). The reduced width shall be as wide as the available space permits, but not less than 225 mm (9 in.).~~	The allowance for the ladder to be retractable seems to make it possible to require the ladder to always be 16" wide. Could there be cases where a 16" wide ladder is still not possible due to clearance problems? Will this require coordinating and educating architects?	Add **SPS 318.1702 (1) (a?)** Substitute the following for the requirements in ASME A17.1, 2.2.4.2.9: Retractable ladders shall be capable of being extended, secured and unsecured, and retracted from a point within 39" of the access door, and
2.2.4.2.5		**2.2.4.2.5** Side rails, if provided, shall have a clear distance adjacent to the side rails of not less than 115 mm (4.5 in.) from their centerline to the nearest permanent object. When obstructions are encountered, the clear distance adjacent to the side rails shall be permitted to be decreased to less than 115 mm (4.5 in.). When the clear distance is decreased to less than 115 mm (4.5 in.), ladder rungs, cleats, or steps shall be provided above the height of the access door sill to the top of the ladder.	No comment	

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment	Council Comment
2.2.4.2.7		**2.2.4.2.7** ~~Retractable ladders that are in the line of movement of the car or counterweight when not fully retracted shall operate a retractable~~ The ladder shall have a ladder electrical device (see 2.26.2.38) that shall cause the electric power to be removed from the elevator driving-machine motor and brake when a person is detected on the ladder. The device is permitted to detect the person directly by weight, by movement or removal of a guard to enable use of the ladder, or by other detection means. If detecting directly by weight, the device shall remove power when more than 9 kg. (20 lb.) is applied to any rung of the ladder. If a guard or other detection means is used, the device shall remove power when the guard is moved or removed, or the other detection means is opened or activated	Is this in series with the pit switch or somehow separate? Does the inspection and testing of this detection means appear in Part 8? Should this require periodict testing?	Add testing this device to the test form. Do we need to add this to SPS 318.17086(9)?
2.2.4.2.8		2.2.4.2.~~7~~8 Retractable ladders that are in the line of movement of the car or counterweight when not fully retracted shall operate a ~~retractable~~ ladder electrical device, (see 2.26.2.38) that shall cause the power to be removed from the elevator driving-machine motor and brake unless the ladder is in its fully retracted position.	Does the inspection and testing of this detection means appear in Part 8? Should this require periodict testing?	
2.2.4.2.9		2.2.4.2.~~8~~9 Retractable ladders shall be capable of ……. This includes the force requirements to put a retractable ladder in place, resistance to force needed to keep it in place and force needed to return it to the retractable position.	No comment	Add testing this device to the test form. Do we need to add this to SPS 318.17086(9)?
2.2.2.5			**SPS 318.1702 (1) (b)** No change	
2.2.6		**2.2.6 Stop Switch in Pits** An enclosed stop switch(es), meeting the requirements of 2.26.2.7, ~~and~~ 2.2.6.1 and~~through~~ 2.2.6.2~~3~~, shall be installed in the pit of each elevator.	No comment	
2.2.9		**2.2.9 Flood Detection Means** For elevators required to comply with Section 8.12, where there is the potential for any part of the elevator to descend or operate below the flood elevation during a flood event, the elevator shall be equipped with a flood detection means (see 2.27.12), located in the pit at a location between 150 mm (6 in.) and 300 mm (12 in.) above the pit floor.	It does not appear that inspection and testing of this detection means are required in Part 8. Should this require inspection and periodic testing to be added to SPS 318?	Add testing this device to the test form. Do we need to add this to SPS 318.17086(9)?
2.4.2		**2.4.2 Minimum Bottom Runby for Counterweighted Elevators** The bottom runby of cars and counterweights when new suspension means are provided shall be not less than the requirements stated in 2.4.2.1 and 2.4.2.2.	No comment	
2.4.2.2 (TABLE)		**2.4.2.2** Where spring buffers, elastomeric buffers, or solid bumpers are used, the bottom runby shall be not be less than 150 mm (6 in.), ~~except for rheostatic and single-speed AC control, not less than shown in Table 2.4.2.2.~~ ~~Table 2.4.2.2 Minimum Bottom Runby for Counterweight Elevators With Spring Buffers, Elastomeric Buffers, or Solid Bumpers and Rheostatic Control or Single-Speed AC Control~~	No comment	
2.4.5			**SPS 318.1702 (1) (bm)** No change	
2.7			**SPS 318.1702 (1) (c)** No change	
2.7.3.2.2	**2.7.3.3.2** A permanent, noncombustible stair shall be provided where the floor of the room or the space above or below the floor or roof from which the means of access leads, or where the distance between floor levels in the room or space, is 900 mm (35 in.) or more. Vertical ladders with handgrips shall be permitted to be used in lieu of stairs for access to overhead machinery spaces, except those containing controllers ~~and~~ or motor generators.		No comment	
2.7.3.4.1			**SPS 318.1702 (2) (b) 1.** No change	
2.7.3.4.3			**SPS 318.1702 (2) (b)** 2. No change	
2.7.4.1			**SPS 318.1702 (2) (c).** No change	
2.7.5.1.2(e)	2.7.5.1.2 The means shall… (e) have a sign in conformance with the requirements of ANSI Z535.2 or CAN/CSA Z321, whichever is applicable, that shall be prominently posted in the work area stating: "WARNING! Engage '_____' before maintaining or inspecting brake, emergency brake, or controller. Follow ~~manufacturers~~ manufacturer's instructions for use of '_____ '" (see ~~8.6.11.6~~ 8.6.11.7). Unless the means has been designed to support not less than the unsuspended car with rated load (see also 2.16.8), it shall also contain the following wording: "Elevator suspension means must be in place during use." ~~If it is not necessary to engage the means~~ Where there is no maintenance or inspection required that could cause unexpected car motion and where it is not necessary to engage the means, the words "brake, emergency brake, or" can be omitted from the sign. NOTE: Substitute name of actual means for "_____" in the above signage.		No comment	
2.7.6.3		**2.7.6.3 Location of Equipment.** The location of equipment used directly in connection with the elevator shall conform to the requirements of 2.7.6.3.1 through 2.7.6.3.4. NOTE (2.7.6.3): See also 8.12.1 for additional requirements that could affect location of equipment.	New access and signage are reasonable and not a significant change.	

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment	Council Comment
2.7.6.4.1	**2.7.6.4.1** Where direct observation of the elevator drive sheave or ropes is not possible from the location of the means necessary for tests that require movement of the car or release of the driving-machine brake or emer- gency brake, display devices or the equivalent shall be provided. The display devices shall be visible from the location of the means and shall convey the following infor- mation about the elevator simultaneously: (a)the direction of movement (b)the reaching of a position within the door unlocking zone (see 2.12.1) (c)an indication of the speed The display devices or the equivalent shall remain oper- able during a failure of the normal building power supply. The power source shall be capable of providing for the operation of the display devices or the equivalent for at least 4 h. Where batteries are used, a monitoring system shall be provided. In the event that during normal operation of the car, the monitoring indicates insufficient power to operate the display devices or the equivalent, the car shall not be permitted to restart after a normal stop at a landing.	**2.7.6.4.1** Where direct observation of the elevator drive sheave or ropes is not possible from the location of the means necessary for tests that require movement of the car or release of the driving-machine brake or emer- gency brake, display devices or the equivalent shall be provided. The display devices shall be visible from the location of the means and shall convey the following infor- mation about the elevator simultaneously: (a)the direction of movement (b)the reaching of a position within the door unlocking zone (see 2.12.1) (c)an indication of the speed The display devices or the equivalent shall remain oper- able during a failure of the normal building power ~~supply~~. The auxiliary power supply or emergency or standby power shall be capable of providing for the operation of the display devices or the equivalent for at least 4 h. Where batteries are used, a monitoring system shall be provided. In the event that during normal operation of the car, the monitoring indicates insufficient power to operate the display devices or the equivalent, the car shall not be permitted to restart after a normal stop at a landing.	No comment	Add testing this auxilliary power supply to the test form. Do we need to add this to SPS 318.17086(9)?
2.7.6.4.3	**2.7.6.4.3** A means to move the car from outside the hoistway shall be provided and shall conform to the following: (a) It shall not be dependent on the availability of normal power. (b) It shall be accessible for operation by elevator personnel only with a key that is Group 1 Security (see Section 8.1). (c) It shall allow the car to move only with continuous effort. (d) If the car is moved manually, the effort required to move the car in the direction of load imbalance shall not exceed 400 N (90 lbf). If the means used is removable, it shall be stored outside the hoistway, and access to the means shall be with a key that is Group 1 Security. The key shall be suitably marked to indicate the machine for which it is intended. (e) Where the manual effort required to move the car exceeds 400 N (90 lbf), a means of electrical operation shall be provided to allow the car to be moved. This means of electrical operation shall require constant-pressure operating devices to move the car, and when activated, operation of the car by all other operating means shall be prevented. A failure of a single constant-pressure operating device shall not permit the elevator to move or continue to move. Where batteries are used for this electrical operation, a monitoring system shall be provided. In the event that during normal operation of the car the monitoring system indicates insufficient power to move the car, the car shall not be permitted to restart after a normal stop at a landing.	**2.7.6.4.3** A means to move the car from outside the hoistway shall be provided and shall conform to the following: (a) It shall not be dependent on the availability of normal building power. (b) It shall be accessible for operation by elevator per- sonnel only with a key that is Group 1 Security (see Section 8.1). (c) It shall allow the car to move only with continuous effort. (d) If the car is moved manually, the effort required to move the car in the direction of load imbalance shall not exceed 400 N (90 lbf). If the means used is removable, it shall be stored outside the hoistway, and access to the means shall be with a key that is Group 1 Security. The key shall be suitably marked to indicate the machine for which it is intended. (e) Where the manual effort required to move the car exceeds 400 N (90 lbf), a means of electrical operation shall be provided to allow the car to be moved. This means of electrical operation shall require constant-pressure operating devices to move the car, and when acti- vated, operation of the car by all other operating means shall be prevented. A failure of a single constant-pressure operating device shall not permit the elevator to move or continue to move. Where batteries are used for this electrical operation, a monitoring system shall be provided. In the event that during normal operation of the car the monitoring system indicates insufficient power to move the car, the car shall not be permitted to restart after a normal stop at a landing.	No comment	
2.7.8	**2.7.8 Remote Machine Rooms, Control Rooms and Control Spaces ~~Rooms~~** Elevators that are provided with remote machine rooms, control rooms and/or control spaces rooms shall conform to 2.7.8.1 through 2.7.8.4.		No comment	
2.7.8.1	**2.7.8.1** Ropes and sheaves leading to ~~the~~ remote machine rooms that penetrate fire barriers shall be fully enclosed, and the enclosures shall conform to 2.1.1.1		No comment	
2.7.8.2	**2.7.8.2** Rope and sheave enclosures leading to ~~the~~ remote machine rooms shall be protected against unauthorized access.		No comment	
2.7.8.3	**2.7.8.3** Permanent means of access shall be provided to the enclosures for inspection, repair, and maintenance of hoist ropes passing over sheaves that are not located in the hoistway or remote machine rooms. Access doors to these enclosures shall be provided at each sheave location, conforming to 2.7.3.4. Access openings shall be provided for inspection and maintenance of hoist ropes passing over sheaves and shall conform to 2.7.3.4. A stop switch meeting the requirements of 2.26.2.23, a permanent electric duplex receptacle, a light switch, and light shall be provided in the enclosures immediately inside the access doors and openings for machine rooms, control rooms and control spaces.		No comment	
2.7.8.4	**2.7.8.4** A permanent means of communication between the elevator car and ~~a~~ remote machine rooms ~~and~~ or control rooms shall be provided. A permanent means of communication between the elevator car and remote control spaces shall be provided when the remote control space contains means necessary for tests (see 2.7.6.4).		No comment	
2.7.9.2			**SPS 318.1702 (2) (d)**. No change	
2.8.1		**2.8.1** "Equipment Allowed Only machinery and equipment used directly in connection with the elevator shall be permitted in elevator hoistways, machinery spaces, machine rooms, control spaces, and control rooms except as permitted in this code. "	No comment	
2.8.3.3		**2.8.3.3** Sprinkler systems conforming to NFPA 13 or the NBCC, building code, whichever is applicable (see Part 9), shall be permitted to be installed in the hoistway, machinery space, machine room, control space, or control room subject to 2.8.3.3.1 through 2.8.3.3.4. NOTE (2.8.3.3): Requirements for automatic sprinklers are addressed in the building code and NFPA 13, which may prohibit the installation of sprinklers in specific locations such as in machine rooms, elevator machinery spaces, control rooms, control spaces and elevator hoistways of elevators meeting the requirements of 2.27.10 or 2.27.11.	Its odd that they only mention Fire Service Access Elevators and Occupant Evecuation Elevators without mentioning traction elevators that have FT-1 rated suspension means. Those are also not required to have sprinklers.	
2.8.3.3.2		**2.8.3.3.2** Sprinkler systems conforming to NFPA 13 or the ~~NBCC~~, building code, whichever is applicable (see Part 9), shall be permitted to be installed in the hoistway, machinery space, machine room, control space, or control room subject to 2.8.3.3.1 through 2.8.3.3.4. NOTE (2.8.3.3): Requirements for automatic sprinklers are addressed in the building code and NFPA 13, which may prohibit the installation of sprinklers in specific locations such as in machine rooms, elevator machinery spaces, control rooms, control spaces and elevator hoistways of elevators meeting the requirements of 2.27.10 or 2.27.11.	Same	
2.8.3.3.3	Smoke detectors shall not be used to activate sprinklers in these spaces or to disconnect the mainline power supply.	Smoke detectors shall not be used to activate sprinklers in these spaces or to disconnect the main line power ~~supply~~.	No comment	

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2.8.3.3.4	**2.8.3.3.4** In jurisdictions not enforcing the NBCC, when sprinklers are installed not more than 600 mm (24 in.) above the pit floor, 2.8.3.3.4(a) and (b) apply to elevator electrical equipment and wiring in the hoistway located less than 1 200 mm (48 in.) above the pit floor, except earthquake protective devices conforming to 8.4.10.1.2(e); and on the exterior of the car at the point where the car platform sill ~~and the lowest landing hoistway door sill are in vertical alignment~~ is level with the sill at the bottom terminal landing.		No comment	
2.8.2.4	**2.8.2.4** In jurisdictions enforcing the NBCC **OR (was AND)** NFPA 72, the means for testing and maintenance of fire alarm initiating devices without having to enter the hoistway shall be permitted. When this means is provided, it shall comply with either (a) or (b): **(a)** The means provided for air sampling shall comply with 2.8.3.1.4. **(b)** The means provided by enclosing a fire alarm initiating device within a protective space shall comply with (1) through (7): **(1)** Hoistway penetrations for access panels utilized for the installation, testing and servicing of fire alarm initiating devices shall comply with 2.1.1.1.3. **(2)** Access panels shall be rated and listed for the application for which they are installed and shall have a maximum width of 400mm (16in.) and maximum height of 400mm (16in.). Access panels shall not swing into the hoistway. **(3)** Access panel doors shall be self-closing and self-locking. The key shall be Group 2 Security (See 8.1). **(4)** The space that houses the detection device(s) shall be furnished with protective guards (cages) that will prevent accidental contact by a person or object with moving equipment within the hoistway. No part of the protective guards (cages) shall be removable from outside the hoistway or from within the space between the access panel and the protective guards (cage). **(5)** Protective guards (cages) shall separate the rest of the hoistway from the space containing the fire alarm initiating device and be of noncombustible openwork material that shall reject a ball 6 mm (0.25 in.) in diameter and be made from material equal to or stronger than 1.110 mm (0.0437 in.) diameter wire. The guard (cage) shall be so supported that when subjected to a force of 450 N (100 lbf) applied over an area of 100 mm x 100 mm (4 in. x 4 in.) at any location, the deflection shall not reduce the clearance between the guard (cage) and any elevator equipment in the hoistway below 25 mm (1 in.).		N 21.3.7* **Fire Alarm Initiating Device(s) Inside Elevator Hoistways.** Fire alarm initiating device(s) required to be installed inside an elevator hoistway by other sections of this Code or by other governing laws, codes, or standards shall be required to be accessible for service, testing, and maintenance from outside the elevator hoistway. This chart stated "...NBCC and NFPA 72...", but the code states "...NBCC or NFPA 72..", so this does apply in the US. This is important code for coordination with building designer and fire alarm designer. This has to correspond with the 2019 NFPA 72 adopted through the 2021 IBC	
2.8.2.4b6	**(6)** Protective guards (cages) shall be installed such that all required hoistway running clearances and beveling requirements are maintained. In no case shall the protective guards (cages) extend more than 400 mm (16 in.) inside the hoistway. **(7)** Prior to installation of fire alarm initiating devices or other fire detection systems in hoistways, layout drawings indicating acceptable installation locations for access panels and protective guards (cages) shall be coordinated with the elevator installer.		This chart stated "...NBCC and NFPA 72...", but the code states "...NBCC or NFPA 72..", so this does apply in the US. This is important code for coordination with building designer and fire alarm designer. This has to correspond with the 2019 NFPA 72 adopted through the 2021 IBC	
2.8.3.1.4	**2.8.3.1.4** The means used for air sampling smoke detection systems shall be permitted to be installed in hoistways, machinery spaces, machine rooms, control spaces, and control rooms for the purpose of detecting smoke in accordance with 2.27.3.2 Phase I Emergency Recall Operation by Fire Alarm Initiating Devices and shall not encroach upon required clearances. Sensing elements penetrating the hoistway enclosure shall have a fire resistance rating conforming to the requirements of the building code.		No comment	
2.8.3.3.2 (d)	**(d)** This means shall only be provided for elevators that are equipped with Phase I Emergency Recall Operation (See 2.27.3).		No comment, must recall before shut tripping	
2.8.7		**2.8.7 Emergency Responder Radio Coverage** (ERRC) Equipment Inside Hoistways. Emergency Responder Radio Coverage (ERRC) equipment shall be permitted to be installed within the elevator hoistway (see 2.8.1) for exclusive use by emergency responders. Where provided, it shall be designed, installed, and maintained so as not to create an interference with elevator operation, inspection, repair, or maintenance. ERRC equipment in the elevator car shall comply with 2.27.12 [see also 2.14.1.9.1(g)]. ERRC equipment in the hoistway shall conform to 2.8.7.1 through 2.8.7.3.	No comment	Who installs ERRC equipment in elevator spaces? Probably the same trades that install it in other parts of the building. But in elevator spaces, only with the assistance of elevator personnel.
2.8.7.1		**2.8.7.1 General Requirements.**	No comment	
2.8.7.1.1		**2.8.7.1.1** ERRC equipment in the hoistway shall be limited to radiating coaxial cable(s) (see 2.8.7.2) or ERRC antenna(s) (see 2.8.7.3).	No comment	
2.8.7.1.1.1		**2.8.7.1.1.1** Prior to installation of radiating coaxial cable(s) or ERRC antenna(s) in the hoistway, layout drawings shall be coordinated with the elevator installer indicating acceptable installation locations for the radiating coaxial cable(s) or antenna(s) and, where provided, the access panel(s) (see also 2.8.7.3.1).	No comment	
2.8.7.1.2		**2.8.7.1.2** ERRC equipment shall not be installed in elevator machinery spaces, machine rooms, control spaces, and control rooms except as permitted in 2.8.7.1.2.1.	No comment	
2.8.7.1.2.1		**2.8.7.1.2.1** Non-radiating coaxial cable(s) feeding the radiating coaxial cable(s) or ERRC antenna(s) shall be permitted to pass through the machine room, control room, control space or machinery space outside the hoistway. The coaxial cable(s) and its installation shall be in accordance with 2.26.4.1, NFPA 72 and NFPA 1221.	No comment	
2.8.7.2		**2.8.7.2 Radiating coaxial cables.** Radiating coaxial cable(s) shall conform to 2.8.7.2.1 through 2.8.7.2.5.	No comment	
2.8.7.2.1		**2.8.7.2.1** The radiating coaxial cable(s) shall be installed per the manufacturer's installation instructions and in a manner subject to the approval of the Authority Having Jurisdiction. Note (2.8.7.2.1): In addition to the manufacturer's instructions, the Authority Having Jurisdictions may require installation in a non-metallic conduit in conformance with the applicable electric code.	No comment	
2.8.7.2.2		**2.8.7.2.2** Multiple radiating coaxial cable(s) shall be permitted in the hoistway.	No comment	
2.8.7.2.3		**2.8.7.2.3** The installation shall conform to horizontal clearance requirements as specified in Section 2.5.	No comment	

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2.8.7.2.4		**2.8.7.2.4** When installed in non-metallic conduit, the radiating coaxial cable(s) shall be supported at the upper point of entry into the conduit external to the hoistway. The lower ends of conduit(s) terminating in the hoistway shall be capped or closed.	No comment	
2.8.7.2.5		**2.8.7.2.5** All service point(s) shall be outside the hoistway.	No comment	
2.8.7.3		**2.8.7.3** ERRC Antenna(s). Antenna(s) shall conform to 2.8.7.3.1 through 2.8.7.3.4.	No comment	
2.8.7.3.1		**2.8.7.3.1** The antenna(s) and associated wiring shall not require service or the antenna(s) and associated wiring shall be accessible from outside the hoistway. When provided, the means to access the antenna(s) and associated wiring from outside the hoistway shall comply with the following: (a) access panels shall be rated and listed for the application for which they are installed (see also 2.1.1.1.3) (b) width and height of the access panels shall be limited to the dimensions required for servicing and replacing the antenna [see 2.7.3.4.7(b) for maximum width and height dimensions] (c) access panel doors shall not swing into the hoistway (d) access panel doors shall be self-closing and self-locking. The key shall be Group 2 Security (see also 8.1) (e) space(s) that houses the antenna(s) shall be furnished with a noncombustible protective guard(s) that shall prevent accidental contact by a person or object with moving equipment within the hoistway. (f) protective guard(s) shall; (1) not be removable from outside the hoistway. When the guard(s) projects more than 100 mm (4 in) into the hoistway, the top and bottom of the antenna guard(s) shall be beveled at an angle of not less than 75 deg with the horizontal. (2) be so supported that when subjected to a force of 450 N (100 lbf) applied over an area of 100 mm x 100 mm (4 in. x 4 in.) at any location, the deflection shall not reduce the clearance between the guard and any elevator equipment in the hoistway below 25 mm (1 in.). (3) be installed such that all required hoistway running clearances and beveling requirements are maintained. In no case shall the protective guards extend more than 400 mm (16 in.) inside the hoistway. (4) not be perforated. (5) be constructed be of non-metallic construction.	No comment	
2.8.7.3.2		**2.8.7.3.2** When an access panel(s) is not provided, termination for the antenna(s), connection(s) for cable(s) shall be located outside the hoistway.	No comment	
2.8.7.3.3		**2.8.7.3.3** The antenna(s) and associated protective guard(s), when provided, shall not reduce clearances as specified in Sections 2.4 and 2.5 and shall comply with 2.1.6.2(c).	No comment	
2.8.7.3.4		**2.8.7.3.4** The antenna(s) shall be provided with a protective means to prevent accidental contact by elevator personnel. The top and bottom of the means shall be beveled at an angle not less than 75 deg with the horizontal.	No comment	
2.8.1			**SPS 318.1702 (3) (a).** No change	
2.8.3.3.2			**SPS 318.1702 (3) (b).** No change	
2.11.6.3 (e)			**SPS 318.1702 (4) (a).** No change	
2.11.10.2			**SPS 318.1702 (4) (b).** No change	
2.11.11.5.7	**2.11.11.5.7** The ~~entrance assembly~~ assembled panel(s), including the means for hanging and guiding the panel(s), shall be capable of withstanding a force of 2 500 N (560 lbf) with no permanent displacement or deformation. This force shall be applied ~~on the landing side~~ in the direction of the hoistway at right angles to and ~~approximately at~~ the ~~center of a~~ panel. ~~This force shall be distributed~~ over an area of ~~approximately~~ 100 mm x 100 mm (4 in. x 4 in.) at the center of the panel (see also 2.11.11.8).~~There shall be no appreciable permanent displacement or deformation of any parts of the entrance assembly resulting from this test.~~ For multi-panel entrances, the force shall be applied individually to each panel of the assembly.		No comment	
2.11.11.9	**2.11.11.9 Beams, Walls, Floors, and Supports.** The building structural supports of the entrance, such as building beams, walls, and floors, shall be designed to withstand the horizontal forces stipulated in 2.11.11.8.	~~**2.11.11.9 Beams, Walls, Floors, and Supports.** The building structural supports of the entrance, such as building beams, walls, and floors, shall be designed to withstand the horizontal forces stipulated in 2.11.11.8.~~ Reserved for future use.	No comment	
2.11.15.1	**2.11.15.1** In jurisdictions not enforcing the NBCC, a A single label listing covered components included per 2.11.15.1.1, or separate labels on all individual components per 2.11.15.1.2 shall be provided.	**2.11.15.1** ~~In jurisdictions not enforcing the NBCC, a~~ A single label listing covered components included per 2.11.15.1.1, or separate labels on all individual components per 2.11.15.1.2 shall be provided.	No comment	
2.11.15.2	**2.11.15.2** Other Entrance Assemblies. In jurisdictions not enforcing the NBCC, the The following shall apply. Other entrance assemblies of the three basic types (see 2.11.14) shall qualify for labeling or listing/certification (a) when composed of panel(s), frame, and hardware of the same type as tested and not exceeding the overall height and width of any panel and frame of the largest size tested; or (b) when such panel(s), frame, and hardware are modified, and test or technical data demonstrates that the modifications will meet the performance requirements of the test procedure in 8.3.3 All other elements of the assembly shall conform to all other applicable requirements of this Code.	**2.11.15.2** Other Entrance Assemblies. ~~In jurisdictions not enforcing the NBCC,~~ the The following shall apply. Other entrance assemblies of the three basic types (see 2.11.14) shall qualify for labeling or listing/certification (a) when composed of panel(s), frame, and hardware of the same type as tested and not exceeding the overall height and width of any panel and frame of the largest size tested; or (b) when such panel(s), frame, and hardware are modified, and test or technical data demonstrates that the modifications will meet the performance requirements of the test procedure in 8.3.3 All other elements of the assembly shall conform to all other applicable requirements of this Code.	No comment	
2.11.15.3	**2.11.15.3 Entrances Larger Than Tested Assemblies.** In jurisdictions not enforcing the NBCC, the following shall apply. When the entrance is too large for the regularly available test facilities, the certifying organization shall be permitted to issue oversize certificates or oversize labels, or such entrances shall be permitted to be used subject to approval by the authority having jurisdiction.	**2.11.15.3 Entrances Larger Than Tested Assemblies.** ~~In jurisdictions not enforcing the NBCC, the following shall apply.~~ When the entrance is too large for the regularly available test facilities, the certifying organization shall be permitted to issue oversize certificates or oversize labels, or such entrances shall be permitted to be used subject to approval by the authority having jurisdiction.	No comment	
2.11.16	**2.11.16 Factory Inspections** In jurisdictions not enforcing the NBCC, the The following shall apply. The manufacturing facilities for the production of entrances or components thereof shall be inspected by the certifying organization at random at least quarterly, or if they are not manufactured on a continuous basis, at the time they are being produced, to assure that production methods are such that entrances or components thereof similar to those tested are being produced.	**2.11.16 Factory Inspections** ~~In jurisdictions not enforcing the NBCC, the The following shall apply.~~ The manufacturing facilities for the production of entrances or components thereof shall be inspected by the certifying organization at random at least quarterly, or if they are not manufactured on a continuous basis, at the time they are being produced, to assure that production methods are such that entrances or components thereof similar to those tested are being produced.	No comment	

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2.11.17	**2.11.17 Transoms and Fixed Side Panels** In jurisdictions not enforcing the NBCC, the following shall apply. Transoms and fixed side panels shall be permitted to close openings above and beside the horizontally sliding or horizontally swinging type entrances, provided that (a) the opening closed by the transom and fixed side panel does not exceed in width or height the dimensions of the entrance in which it is installed (b) the transom panels and fixed side panels are (1) constructed in a manner equivalent to the construction of the entrance panels (2) secured	**2.11.17 Transoms and Fixed Side Panels** ~~In jurisdictions not enforcing the NBCC, the following shall apply.~~ Transoms and fixed side panels shall be permitted to close openings above and beside the horizontally sliding or horizontally swinging type entrances, provided that (a) the opening closed by the transom and fixed side panel does not exceed in width or height the dimensions of the entrance in which it is installed (b) the transom panels and fixed side panels are (1) constructed in a manner equivalent to the construction of the entrance panels (2) secured	No comment	
2.11.18		**2.11.18 Installation Instructions** ~~In jurisdictions not enforcing the NBCC, the following shall apply:~~ (a) Instructions detailing the application and installation of door listed/certified panels and entrance hardware shall be provided. (b) Where frames are used, instructions detailing the listed/certified frame-to-wall interface shall be provided.	No comment	
2.12	**SECTION 2.12** **HOISTWAY DOOR LOCKING DEVICES AND ~~ELECTRIC CONTACTS~~ CLOSED DETECTION MEANS, AND HOISTWAY ACCESS SWITCHES**		No comment	
2.12.1.5	**2.12.1.5** Freight elevator hoistway doors shall be equipped with interlocks conforming to 2.12.2 or hoistway door combination mechanical locks and ~~electric contacts~~ closed detection means conforming to, and where permitted by, 2.12.3.		No comment	
2.12.2.4	**2.12.2.4 General Design Requirements.** Interlocks shall conform to 2.12.2.4.1 through 2.12.2.4.~~7~~8.		No comment	
2.12.2.4.1	**2.12.2.4.1** To detect closed and locked position of the door(s), interlocks shall have: **(a)** contacts meeting the requirements of 2.26.4.3.1; or **(b)** SIL rated devices meeting the requirements of 2.26.4.3.2.		No comment	
2.12.2.4.2	**2.12.2.4.~~1~~2** Interlocks that have a closed and locked detection means using contacts meeting the requirements of 2.26.4.3.1 shall have contacts that are: (a) ~~be~~ positively opened by the locking member or by a member connected to and mechanically operated by the locking member, ~~and the contacts shall~~ (b) ~~be~~ maintained in the open position by the action of gravity, or by a restrained compression spring, or by both, or by means of the opening member ~~(see 2.26.2.14)~~. (c) ~~Contacts shall be~~ open when the hoistway door interlock is unlocked. If the contacts are maintained in the open position by other than the locking member, the interlock shall be located or designed such that the contacts cannot be manually closed from the car or landing when the doors are open. The electrical contact bridging means shall withstand a separating force of 200 N (45 lbf) in any direction from the locking member.		No comment	
2.12.2.4.3	**2.12.2.4.3** Interlocks that have a closed and locked detection means using SIL rated devices meeting the requirements of 2.26.4.3.2 shall: **(a)** have the detection means directly operated by the locking member or a member connected to and positively mechanically operated by the locking member **(b)** have the locking member maintained in the unlocked position by the action of gravity, or by a restrained compression spring, or by both, or by means of the opening member **(c)** detect when the hoistway door interlock is locked **(d)** be tamper resistant such that it cannot be made ineffective from within the car or landing side when the doors are open **(e)** be designed such that devices attached to the locking member that are required to detect the position of the locking member shall withstand a separating force of 200 N (45 lbf) in any direction from the locking member **(f)** be located or designed such that they cannot detect the closed and locked position of the door unless the door is in the closed and locked position.		No comment	
2.12.2.4.4	**2.12.2.4.~~2~~4** The locking member of the interlock shall hold the door in the locked position by means of gravity, or by a restrained compression spring, or by both, or by means of a positive linkage. Rationale: Editorial renumbering of the rule.		No comment	
2.12.2.4.5	**2.12.2.4.~~3~~5** The interlock shall lock the door in the closed position with a minimum engagement of 7 mm (0.28 in.) of the locking members before the interlock contacts are detection means detects the closed and locked position and before the driving machine can be operated, except as permitted in 2.12.2.3. Devices that permit operation of the driving machine by the normal operating device when the door is closed but before it is locked are not interlocks and are not permitted where interlocks are required by this Code.		No comment	

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2.12.2.4.6	**2.12.2.4.46** Interlocks, used with multisection doors, shall conform to the following requirements: **(a)** They shall lock all sections of the door, but shall be permitted to be applied to only one section of the door, provided the device used to interconnect the door sections is so arranged that locking one section will prevent the opening of all sections. **(b)** Where used with vertically sliding biparting counterbalanced doors, they shall be so arranged that the interlock ~~contacts~~ closed and locked detection means are mechanically held in the open or unlocked position by the door or devices attached thereto, unless the door is in the closed position. **(c)** Where used with center-opening horizontally swinging doors, either **(1)** both door panels shall be equipped with interlocks; or **(2)** where the door panels are so arranged that one panel can be opened only after the other panel has been opened, the interlock is not required on the section that opens last, if that door panel is provided with a door ~~electric contact~~ closed detection means conforming to ~~2.14.2.3, 2.14.4.2.5~~, 2.14.4.2.3 and 2.14.4.2.4, or 2.14.4.2.3 and 2.14.4.2.5, and 2.26.2.15, except that terms "door or gate" and "car door or gate" shall be replaced with the term "hoistway door" or "hoistway door section" ~~and~~ , The term "accessible from ~~inside~~ within the car ~~panel~~" shall be replaced with the term "accessible from the landing side when the hoistway doors are closed" and the term "made ineffective from within the car" shall be replaced with "made ineffective from the landing side when the hoistway doors are closed."		No comment	
2.12.2.4.6(d)	**(d)** Where used with combination horizontally sliding and swinging doors, either **(1)** the sliding and swinging panels shall both be equipped with interlocks; or **(2)** where the sliding and swinging panels are interconnected in conformity with the requirements of 2.11.13.5, the interlock is not required on the swinging panel, provided that the interlock on the sliding panel is so designed and installed that the car cannot be operated unless the sliding and swinging panels are both locked in the closed position, as defined in 2.12.2.2. **(e)** Where a door closer, used with a combination sliding and swinging door, is arranged to be disconnected to allow the sliding panel to swing, it shall be so designed and installed that it shall not ~~make~~ cause the interlock ~~contact~~ detection means to detect the closed and locked position when the door closer is disconnected and released.	**(d)** Where used with combination horizontally sliding and swinging doors, either **(1)** the sliding and swinging panels shall both be equipped with interlocks, **or** **(2)** where the sliding and swinging panels are inter- connected in conformity with the requirements of 2.11.13.5, the interlock is not required on the swinging panel, provided the interlock on the sliding panel is designed and installed so that the car cannot be operated unless the sliding and swinging panels are both locked in the closed position, as defined in 2.12.2.2. **(e)** Where a door closer, used with a combination sliding and swinging door, is arranged to be disconnected to allow the sliding panel to swing, it shall be designed and installed so that it shall not cause the interlock detection means to detect the closed and locked position when the door closer is disconnected and released.	No comment	
2.12.2.4.7	**2.12.2.4.57** Interlock systems employing a single master switch for more than one door are prohibited.		No comment	
2.12.2.4.8	**2.12.2.4.68** Mercury tube switches shall not be used.		No comment	
2.12.3	**2.12.3 Hoistway Door Combination Mechanical Locks and ~~Electric Contacts~~ Closed Detection Means**		No comment	
2.12.3.1	**2.12.3.1 Where Permitted.** Hoistway door combination mechanical locks and ~~electric contacts~~ closed detection means shall be permitted only on freight elevators equipped with manually operated vertically sliding doors and only at the following landings: **(a)** the top terminal landing and the landing whose sill is located not more than 1 225 mm (48 in.) below the top terminal landing sill, provided that the elevator rise does not exceed 4 570 mm (15 ft) **(b)** any landing whose sill is within 1 525 mm (60 in.) of the pit floor, regardless of the elevator rise.		No comment	
2.12.3.4	**2.12.3.4 General Design Requirements.** Hoistway door ~~C~~combination mechanical locks and ~~electric contacts~~ closed detection means shall conform to 2.12.3.4.1 through 2.12.3.4.6.5.		No comment	
2.12.3.4.1	**2.12.3.4.1** They shall be so designed that the locking member and the ~~electric contact~~ closed detection means are mounted on and attached to a common base, in such a manner that there is a fixed relation between the location of the ~~contact~~ closed detection means and the location of the locking member. They shall be so installed and adjusted that the ~~electric contact~~ closed detection means cannot ~~close~~ detect the closed position until the door is ~~in the~~ closed ~~position~~ as specified in 2.12.3.2, and so that the locking member is in a position to lock the door when or before the ~~contact closes~~ closed detection means detects the closed position. In order to prevent motion of the door from ~~opening the electric contact~~ allowing the closed detection means to detect the open position while the door is locked in the closed position, multiple-locking points shall, where necessary, be provided on the locking mechanism.		No comment	
2.12.3.4.2	2.12.3.4.2 The ~~electric contact~~ closed detection means shall be positively ~~opened~~ operated mechanically by the locking bar of the mechanical lock or by a lever or other device attached to and operated by the door, and the ~~electric contact~~ closed detection means shall be maintained in the open position by the action of gravity or by a restrained compressed spring, or by both, or by positive mechanical means unless the door is in the closed position. (See 2.26.2.14		No comment	
2.12.3.4.4	**2.12.3.4.4** Hoistway door ~~C~~combination mechanical locks and ~~electric contacts~~ closed detection means used with vertical-slide multiple-panel doors shall conform to the following requirements: **(a)** They shall lock all panels of the door, but shall be permitted to be applied to only one section of the door, provided the device used to interconnect the door sections is so arranged that locking one panel will prevent the opening of all panels. **(b)** Where used with vertically sliding biparting counterbalanced doors, the ~~electric contact~~ closed detection means shall be so arranged that it is positively operated mechanically ~~held in the open position~~ by the door or a device attached thereto, and cannot detect the closed position unless the door is ~~in the~~ closed ~~position~~.		No comment	
2.12.3.5	**2.12.3.5 Location.** Hoistway door ~~C~~combination mechanical locks and ~~electric contacts~~ closed detection means shall be so located that they are not accessible from the landing side when the hoistway doors are closed		No comment	
2.12.4	**2.12.4 Listing/Certification Door Locking Devices and Door or Gate ~~Electric Contacts~~ Closed Detection Means**		No comment	

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2.12.4.1	**2.12.4.1 Type Tests.** Each type and make of hoistway door interlock, car door interlock, hoistway door combination mechanical lock and ~~electric contact~~ closed detection means, and door or gate ~~electric contact~~ closed detection means, shall conform to the type tests specified in 8.3.3, unless tested prior to **(a)** August 1, 1996, and shall have been subjected to the tests specified in A17.1a–1994, Section 1101; or **(b)** March 23, 2002, in jurisdictions enforcing CSA B44 and shall have been subjected to the tests specified in CSA B44S1-97, Clause 11.5. The tests shall be done by or under the supervision of a certifying organization.		No comment	
2.12.4.2	**2.12.4.2 Listing/Certification**. Each type and make of hoistway door interlock, car door interlock, hoistway door combination mechanical lock and ~~electric contact~~ closed detection means, and door or gate ~~electric contact~~ closed detection means shall conform to the general requirements for tests and certification specified in 8.3.1.		No comment	
2.12.4.3	**2.12.4.3 Identification Marking**. Each listed/certified device shall be labeled. It shall be permanently attached to the device, and shall be so located as to be readily visible when the device is installed in its operating position (see 2.26.4.3.2 for additional marking requirements for SIL rated devices). The labels shall include the following data: **(a)** the name, trademark, or certifying organization file number by which the organization that manufactured the product can be identified **(b)** the certifying organization name or identifying symbol **(c)** statement of compliance with ASME A17.1 or CSA B44 **(d)** a distinctive type, model, or style letter or number **(e)** rated voltage and current, and whether AC or DC **(f)** rated test force and rated test movement when the device is of a type released by an interlock retiring cam (see 8.3.3.4.7) **(g)** date (month and year) devices subjected to type test specified in 2.12.4.1 **(h)** if the device has only been type tested and listed/certified for use on a private residence elevator, the label shall indicate the restricted use		No comment	
2.12.6.2			**SPS 318.1702 (5) (a)**. No change **SPS 318.1702 (5) (b)**. No change, Just change the heading for SPS 318.17082(5)	
2.12.7.2.1	**2.12.7.2.1** The switch shall be installed a minimum of 1200 mm (48 in.) and a maximum of 1825 mm (72 in.) above the floor measured to the centerline of the switch, adjacent to or part of the hoistway entrance at the landing with which it is ~~identified~~ associated, and in one of the following locations: **(a)** on the wall outside of the hoistway within 300mm (12 in.) of the entrance frame **(b)** on the hoistway entrance frame or jamb **(c)** on the sight guard The switch shall be labeled "ACCESS" and shall be a three-position switch, labeled "UP," "OFF," and "DOWN" (in that order), with the "OFF" position as the center position. The switch shall be rotated clockwise to go from the "UP" to "OFF" to "DOWN" positions.		No comment	
2.12.7.2.4	**2.12.7.2.4** The switch shall (a) use contacts that are positively opened mechanically; their openings shall not be solely dependent on springs (b) be SIL rated with a S1L equal to or greater than the S1L indicated for the applicable device shown in Table 2.26.4.3.2	**2.12.7.2.4** The switch shall either (a) use contacts that are positively opened mechanically; their openings shall not be solely dependent on springs, or (b) be SIL rated with a SIL equal to or greater than the SIL indicated for the applicable device shown in Table 2.26.4.3.2	No comment	
2.13.3.4.10	**2.13.3.4.10** When building conditions would render ineffective or nonoperational the detection means required by 2.13.3.4.5(a), (b), or (c), 2.13.3.4.6(c), (d), or (e), or 2.13.3.4.7(d), (e), (f), or (g), the following shall be provided in lieu of compliance with 2.13.3.4.5(a), (b), or (c), 2.13.3.4.6(c), (d), or (e), or 2.13.3.4.7(d), (e), (f), or (g): **(a)** continuous pressure closing of the car door or gate and hoistway door in compliance with 2.13.3.4.1 **(b)** usage shall be limited to authorized personnel only. A sign complying with 8.13.2 ~~in compliance with 2.16.5.2~~ shall be provided but shall read: "THIS IS A FREIGHT ELEVATOR, NOT A PASSENGER ELEVATOR, AND NOT FOR PUBLIC USE.NO PERSONS OTHER THAN AUTHORIZED PERSONNEL ARE PERMITTED TO OPERATE THIS ELEVATOR." (c) Sequence operation shall be in compliance with 2.13.6.1. (d) The average closing speed of the car door or gate shal be limited to 0.20 m/s (0.67 ft/s). NOTE (2.13.3.4.10): Such building conditions include but are not limited to environments with high levels of particulates, environments impacted by detector emissions, large opening widths, excessive cold, wash down environments, etc		No comment	

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment	Council Comment
2.13.4.2.1	**2.13.4.2.1 Kinetic Energy** (a) Where the hoistway door and the car door/gate are closed in such a manner that stopping either one manually will stop both, the kinetic energy of the closing door system shall be based on the sum of the hoistway and the car door weights, as well as all parts rigidly connected thereto, including the rotational inertia effects of the door operator and the connecting transmission to the door panels. (b) Where a reopening device conforming to 2.13.5 is used, the closing door system shall conform to the following requirements: (1) The kinetic energy computed for the actual closing speed at any point in the Code zone distance defined by 2.13.4.2.2 shall not exceed 23 J (17 ft-lbf). (2) The kinetic energy computed for the average closing speed as determined in accordance with 2.13.4.2.2 shall not exceed 10 J (7.37 ft-lbf). (c) Where a reopening device is not used, or has been rendered inoperative (see 2.13.5), the closing door system shall conform to the following requirements: (1) The kinetic energy computed for the actual closing speed at any point in the Code zone distance defined by 2.13.4.2.2 shall not exceed 8 J (6 ft-lbf). (2) The kinetic energy computed for the average closing speed within the Code zone distance (see 2.13.4.2.2), or in any exposed opening width, including the last increment of door travel, shall not exceed 3.5 J (2.5 ft-lbf).	**2.13.4.2.1 Kinetic Energy** (a) Where the hoistway door and the car door/gate are closed in such a manner that stopping either one manually will stop both, the kinetic energy of the closing door system shall be based on the sum of the hoistway and the car door weights, as well as all parts rigidly connected thereto, including the rotational inertia effects of the door operator and the connecting transmission to the door panels. (b) Where a reopening device conforming to 2.13.5 is used, the closing door system shall conform to the following requirements: (1) The kinetic energy computed for the actual closing speed at any point in the Code zone distance defined by 2.13.4.2.2 shall not exceed 23 J (17 ft-lbf). (2) The kinetic energy computed for the average closing speed as determined in accordance with 2.13.4.2.2 shall not exceed 10 J (7.37 ft-lbf). (c) Where a reopening device is not used, or the detection of objects in the door path has been rendered inoperative (see 2.13.5), the closing door system shall conform to the following requirements: (1) The kinetic energy computed for the actual closing speed at any point in the Code zone distance defined by 2.13.4.2.2 shall not exceed 8 J (6 ft-lbf). (2) The kinetic energy computed for the average closing speed within the Code zone distance (see 2.13.4.2.2), or in any exposed opening width, including the last increment of door travel, shall not exceed 3.5 J (2.5 ft-lbf).	No comment	
2.13.4.2.4	**2.13.4.2.4** ~~Data~~ **Door Marking Plate**. A ~~data~~ marking plate complying with 8.13.3 ~~conforming to 2.16.3.3~~ shall be attached to the power door operator or to the car crosshead and shall contain the following information: (a) minimum door closing time in seconds for the doors to travel the Code zone distance as specified in 2.13.4.2.2 corresponding to the kinetic energy limits specified in 2.13.4.2.1(b)(2) (b) minimum door closing time in seconds for the doors to travel the Code zone distance as specified in 2.13.4.2.2 corresponding to the kinetic energy limits specified in 2.13.4.2.1(c)(2), if applicable [see 2.27.3.1.6(e)] (c) where heavier hoistway doors are used at certain floors, the minimum door closing time in seconds corresponding to the kinetic energy limits specified in 2.13.4.2.1(b)(2) and 2.13.4.2.1(c)(2), if applicable, for the corresponding floors shall be included on the ~~data~~ marking plate		No comment - Interesting that a "marking" plate is not the same as a "data" plate	
2.13.5	**2.13.5** Reopening Device(s) for Power-Operated Horizontally Sliding ~~Car~~ Doors ~~or~~ and Gates Reopening device(s) for power-operated horizontally sliding doors or gates shall conform to the requirements of 2.13.5.1 through 2.13.5.6. Where the term "door(s)" is used the requirement shall apply to "gate(s)" as well.	**2.13.5** Reopening Device(s) for Power-Operated Horizontally Sliding Doors and Gates Reopening device(s) for power-operated horizontally sliding doors or gates shall conform to the requirements of 2.13.5.1 through 2.13.5.6. Where the term "door(s)" is used, the requirement shall apply to "gate(s)" as well. The detection technology used shall comply with this standard and the other standards governing the use of that technology. NOTE: Where detection technologies include the use of microwaves, standards such as IEEE C95.1 and 47 CFR 15, or ISED RSS-247 may apply (See Part 9). Where detection technologies include the use of lasers, standards such as IEC 60825-1 and 21 CFR 1040, or CAN/CSA-E60825-1 may apply (See Part (9).	No comment	
2.13.5.1	**2.13.5.1 Where Required and Function.** Where required by 2.13.4, ~~a~~ power-operated ~~car~~ doors shall be provided with a reopening device(s) that operates as follows: ~~that will function to stop and reopen a car door and the adjacent landing door sufficiently to permit passenger transfer in the event that the car door or gate is obstructed while closing. If the closing kinetic energy is reduced to 3.5 J (2.5 ft-lbf) or less, the reopening device shall be permitted to be rendered inoperative. The reopening device used shall be effective for substantially the full vertical opening of the door (see 2.13.4.2).~~ **(a)** If an object has been detected in accordance with 2.13.5.3 or 2.13.5.4, when the doors are fully open, the hoistway door and car door shall not close, or when closing, shall cause the car door and the hoistway door at the landing to initiate a reversal without intentional delay beyond system response time, and to fully reopen or reopen a minimum of 915 mm (36 in.). **(b)** If doors fail to fully close (see 2.12.2.2(a)) within 10 seconds in addition to the door close data plate value, the doors shall fully reopen.		No comment	
2.13.5.2a	**2.13.5.2 Rendering Inoperative** **(a)** The reopening device(s) shall be permitted to be rendered inoperative **(1)** when the closing kinetic energy is reduced in accordance with 2.13.4.2.1(c)(1) and (2) **(2)** for detection of approaching objects (-a) within 450 mm (18 in) of the point at which the leading edge of the leading door panel contacts the door jamb or opposing door panel. (-b) when 20 seconds have transpired after the detection means of approaching objects first detects an object. When an object is detected in the path of the doors, the 20 seconds duration shall reset. **(3)** for detection of objects in the door path, within 20 mm (0.75 in) of the point at which the leading edge of the leading door panel contacts the door jamb or opposing door panel	**2.13.5.2 Rendering Inoperative** (a) The reopening device(s) shall be permitted to be rendered inoperative (1) when the closing kinetic energy is reduced in accordance with 2.13.4.2.1(c)(1) and 2.13.4.2.1(c)(2) (2) for detection of approaching objects, (-a) within 450 mm (18 in.) of the point at which the leading edge of the leading door panel contacts the door jamb or opposing door panel. (-b) ~~when 20s have transpired after the detection means of approaching objects first detects an~~ no object is detected in the door path for more than 5 s after detecting an approaching object. When an object is detected in the path of the doors, the ~~20~~5 s duration shall reset to a minimum of 3 s. (3) for detection of objects in the door path, within 20 mm (0.75 in.) of the point at which the leading edge of the leading door panel contacts the door jamb or opposing door panel (b) Where Phase I …	No comment	

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2.13.5.2b	**(b)** ~~For center-opening doors, the reopening device shall be so designed and installed that the obstruction of either door panel when closing will cause the reopening device to function.~~ Where Phase I Emergency Recall Operation by a fire alarm initiating device (see 2.27.3.2.3) is not provided, door reopening devices that can be affected by smoke or flame shall be rendered inoperative after the doors have been held open for 20 s after a door close signal has been initiated. Door closing for power-operated doors shall conform to 2.13.~~5~~4. **(c)** When the reopening device(s) has been rendered inoperative per 2.13.5.2(a)(1), a continuously sounding audible signal shall be provided with a sound level of 10 dBA minimum above ambient and shall not exceed 80 dBA. The sound level shall be measured 1 m (40 in) above the landing floor, 500 mm (20 in) from the door face, along the center line of the entrance opening, with the doors open. The signal shall sound during door closing until the doors are fully closed. In no case shall the sound level exceed 85 dBA inside the cab within 300 mm (12 in) from the center line of the entrance and 1 m (40 in) above the floor.		No comment	
2.13.5.3	**2.13.5.3 Detection of Approaching Objects.** The reopening device(s) shall be designed to detect a cylindrical target(s) approaching the entrance opening of the landing side doors as required by 2.13.5.3.1. The cylindrical target(s) shall be oriented with the base parallel to the floor, the height perpendicular to the floor and have properties conforming to the following: **(a)** Diameter of 200 mm (8 in.), height of 1000 mm (40 in.) and painted flat black per FED-STD-595C in the color range from 37005 through 37050. **(b)** Diameter of 200 mm (8 in.), height of 1000 mm (40 in.) and painted glossy white per FED-STD-595C in the color range from 17800 through 17999. **NOTE 2.13.5.3**: See Non-mandatory Appendix S Fig. S-13.	**2.13.5.3 Detection of Approaching Objects.** The reopening device(s) shall be designed to detect a cylindrical target(s) approaching the entrance opening of the landing side doors as required by 2.13.5.3.1. The cylindrical target(s) shall have a diameter of 200 mm (8 in.), a height of 1 000 mm (40 in.), and detectable properties of a human applicable for the technology used. The cylindrical target(s) shall be oriented with the base parallel to the floor, the height perpendicular to the floor., ~~and properties conforming to the following:~~ ~~(a) diameter of 200 mm (8 in.), height of 1 000 mm (40 in.), and painted flat black per FED-STD-595C in the color range from 37005 through 37050~~ ~~(b) diameter of 200 mm (8 in.), height of 1 000 mm (40 in.), and painted glossy white per FED-STD-595C in the color range from 17800 through 17999.~~ NOTE (2.13.5.3): See Non-mandatory Appendix S, Fig. S-13.	3D detector - any problems of note with them? Testing requirements?	
2.13.5.3.1	**2.13.5.3.1** Each cylindrical target shall be moved toward the entrance, perpendicular to the plane of the landing door, at any speed up to 1 m/s (3 ft/s). The cylindrical target shall be detected while moving towards the entrance anywhere between 500 mm (20 in) and 225 mm (9 in) from the landing side face of the hoistway door and 225 mm (9 in) ahead of the leading edge (see Nonmanditory Appendix S, Fig S-16 for moving line of detection). The cylindrical target shall be permitted to be detected prior to the position defined above. The approaching object detection means shall be effective until the leading edge of the doors are within 450 mm (18 in) of the fully closed position and shall be permitted to be effective up to the fully closed position.	**2.13.5.3.1** ~~Each~~ A cylindrical target ~~shall be moved~~ moving toward the entrance at an angle representative of an approaching person and at any speed between 0.3 m/s (1 ft/s) to 1m/s (3 ft/s), shall be detected at some point along the moving line of detection defined as follows: from 225 mm (9 in.) to 500 mm (20 in.) measured perpendicular to the landing-side face ~~plane~~ of the ~~landing~~ hoistway door(s) and 225 mm (9 in.) ahead of the leading edge(s) (see Nonmandatory Appendix S, Figure S-16 for moving line of detection)~~, at any speed up to 1 m/s (3 ft/s)~~. The ~~cylindrical target shall be detected while moving toward the entrance anywhere between 500 mm (20 in.) and 225 mm (9 in.) from the landing side face of the hoistway door and 225 mm (9 in.) ahead of the leading edge(s) (see Nonmandatory Appendix S, Figure S-16 for moving line of detection)~~. The cylindrical target shall be permitted to be detected prior to the position defined above. The approaching object detection means shall be effective until the leading edge of the doors is within 450 mm (18 in.) of the fully closed position and shall be permitted to be effective up to the fully closed position.	3D detector - any problems of note with them? Testing requirements?	Add testing this device to the inspection checklist
2.13.5.4	**2.13.5.4 Detection of Objects in the Door Path** The reopening device(s) shall be designed to detect rectangular prisms positioned as required by 2.13.5.4.1 and 2.13.5.4.2 with properties conforming to the following: (a) 80 mm (3.15 in.) by 50 mm (2 in.) by 150 mm (6 in.), painted flat black per FED-STD-595C in the color range from 37005 through 37050, and (b) 80 mm (3.15 in.) by 50 mm (2 in.) by 150 mm (6 in.), painted glossy white per FED-STD-595C in the color range from 17800 through 17999. NOTE 2.13.5.4: See Non-mandatory Appendix S Fig. S-14 and S-15	**2.13.5.4 Detection of Objects in the Door Path.** The reopening device(s) shall be designed to detect rectangular prisms positioned as required by 2.13.5.4.1 and 2.13.5.4.2. The rectangular prism shall have dimensions of 80 mm (3.15 in.) by 50 mm (2 in.) by 150 mm (6 in.) and with detectable properties of a human applicable for the technology. ~~with properties conforming to the following:~~ ~~(a) 80 mm (3.15 in.) by 50 mm (2 in.) by 150 mm (6 in.), painted flat black per FED-STD-595C in the color range from 37005 through 37050~~ ~~(b) 80 mm (3.15 in.) by 50 mm (2 in.) by 150 mm (6 in.), painted glossy white per FED-STD-595C in the color range from 17800 through 17999~~ NOTE (2.13.5.4): See Non-mandatory Appendix S, Fig. S-14 and S-15.	3D detector - any problems of note with them? Testing requirements?	
2.13.5.4.1	2.13.5.4.1 The device(s) shall be designed to detect prisms positioned anywhere within the opening width of the entrance vertically between two horizontal planes located 25 mm (1 in.) and 1525 mm (60 in.) respectively above the floor and oriented with the 50 mm (2 in.) dimension parallel to the floor, the 150 mm (6 in.) dimension perpendicular to the door and the 80 mm (3.15 in.) dimension perpendicular to the floor: (a) wholly located between the vertical planes established by the landing side face of the hoistway door and the car side face of the car door; or (b) centered between the two vertical planes described in (a) if the distance between the two planes is less than 150 mm (6 in.)		3D detector - any problems of note with them? Testing requirements?	Add testing this device to the inspection checklist
2.13.5.4.2	**2.13.5.4.2** The device(s) shall be designed to detect prisms positioned anywhere within the opening width of the entrance on the floor and oriented with the 80 mm (3.15 in.) dimension parallel to the floor, the 150 mm (6 in.) dimension perpendicular to the door and the 50 mm (2 in.) dimension perpendicular to the floor: **(a)** wholly located between the vertical planes established by the landing side face of the hoistway door and the car side face of the car door; or **(b)** centered between the two planes if the distance between the two planes is less than 150 mm (6 in.)		3D detector - any problems of note with them? Testing requirements?	
2.13.5.5	**2.13.5.5 Self-Monitoring of Detection Means** The system shall be designed to be self-monitoring. After the door has reached its fully opened position and before door closing is initiated, the detection means shall be self-checked to verify the detection means is operational. If the self-check outcome is unsuccessful, power closing of the door(s) shall be at reduced kinetic energy conforming to 2.13.4.2.1(c)(2).	**2.13.5.5 Self-Monitoring of Detection Means.** ~~The system shall be designed to be self-monitoring. After the door has reached its fully opened position and before door closing is initiated, the detection means shall be self-checked to verify the detection means is operational.~~ After the door has reached its fully opened position and before door closing is initiated, the detection means used to comply with 2.13.5.3 and 2.13.5.4 shall be self-monitored to assure that it is capable of sensing the defined objects and sending the appropriate signal to the control that initiates the starting, stopping, and direction of motion of the door(s). If the self-~~check~~ monitored outcome is unsuccessful, power closing of the door(s) shall be at reduced kinetic energy conforming to 2.13.4.2.1(c)(2).	No comment	

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2.13.5.6	**2.13.5.6 Maintenance and Onsite Testing of Detection Means** The maintenance and method of onsite testing of the detection means shall be provided in the Maintenance Control Program Onsite Documentation (see 8.6.4.19.18).		No comment	
2.14	**SECTION 2.14** **CAR ENCLOSURES, CAR DOORS AND GATES, AND CAR ILLUMINATION**			
2.14.1.2.4	**2.14.1.2.4** Panels attached to the car enclosure for decorative or other purposes shall either (a) not be unfastened from inside the car by the use of common tools (b) be permitted to be removed from inside the car when perforations, exceeding that which would reject a ball 13 mm (0.5 in.] in diameter, in the enclosure used for panel hanging or support have permanent means to prevent straight-through passage beyond the running clearance	**2.14.1.2.4** Panels attached to the car enclosure for decorative or other purposes shall either (a) not be unfastened from inside the car by the use of common tools **or** (b) be permitted to be removed from inside the car when perforations, exceeding that which would reject a ball 13 mm (0.5 in.) in diameter, in the enclosure used for panel hanging or support have permanent means to prevent straight-through passage beyond the running clearance	No comment	
2.14.1.5.1(f)	**2.14.1.5.1** top emergency exits shall conform to the following requirements: (a) ... **(c)** The top emergency exit cover shall open outward. It shall be hinged or securely attached with a chain when in both the open and closed positions. If a chain is used, it shall be not more than 300 mm (12 in.) in length and have a factor of safety of not less than 5. The exit cover shall ~~only~~ be openable from the top of the car, ~~where it shall be openable~~ without the use of special tools, and shall be permitted to be openable from within the car by means of a keyed spring-return cylinder-type lock having not less than a five-pin or five disk combination. This key shall be Group 1 Security (see Section 8.1). The exit cover of the lower compartment of a multi-deck elevator shall be openable from both compartments. On elevators with two compartments, if the emergency exit of the lower compartment does not open directly into the upper compartment, a guarded passageway shall be provided between the lower compartment roof and the upper compartment floor.		No comment	
2.14.1.9.1	**2.14.1.9.1** Apparatus or equipment not used in connection with the function or use of the elevator shall not be installed inside any elevator car, except as follows: (a) Support rails (handrails) are permitted. …	**2.14.1.9.1** Apparatus or equipment not used in connection with the function or use of the elevator shall not be installed inside any elevator car, except as follows: (a) Support rails (handrails) are permitted. … (g) Emergency Responder Radio Coverage (ERRC) Equipment Inside Cars (see also 2.27.12).	No comment	
2.14.2.2	**2.14.2.2 Openings Prohibited.** Openings or hinged or removable panels in an enclosure are prohibited, other than as required for the following: (a) .... **(g)** equipment access panels for maintenance and inspection of equipment shall conform to the following requirements (see also 2.7.5.1.4): **(1)** be of hinged type. **(2)** open only into the car. **(3)** be provided with a lock so arranged that the door shall be openable from inside the car only by a specially shaped removable key. Locks shall be so designed that they cannot be opened from the inside by the use of ordinary tools or instruments. Keys shall be Group 1 Security (see 8.1). **(4)** be provided with ~~electric contacts~~ door or gate closed detection means that conform to ~~2.14.4.2.3(b) through (e)~~ 2.14.4.2.3 and 2.14.4.2.4 or 2.14.4.2.3 and 2.14.4.2.5, and 2.26.2.35, and are located so as to be inaccessible from the inside of the car. When ~~opened, the contact~~ the closed detection means detects the open position of the access panel it shall cause power to be removed from the driving-machine motor and brake. (5) be of the same material and construction as required for the enclosure.		No comment	
2.14.2.3.3	**2.14.2.3.3** Forced ventilation conforming to the following shall be provided on observation elevators with glass walls exposed to direct sunlight: (a) There shall be a minimum air handling capacity to provide one air change per minute based on net inside car volume. (b) An auxiliary power ~~source~~ supply capable of providing the minimum air handling capacity for a continuous period of at least 1 h shall be provided on each elevator car. **NOTE (2.14.2.3.3):** Special consideration should be given to elevators such as observation and parking garage elevators, when they are exposed to the elements. In extreme cases, an emergency or standby power source may be required for this purpose.		Auxilliary power source testing and inspection	
2.14.4.2	**2.14.4.2** Car Door and Gate ~~Electric Contacts~~ Closed Detection Means and Car Door Interlocks		No comment	
2.14.4.2.1	**2.14.4.2.1** Each car door or gate shall be provided with a door or gate ~~electric contact~~ closed detection means conforming to 2.26.2.15, 2.14.4.2.3, 2.14.4.2.4 or 2.14.4.2.5, and 2.14.4.2.57, or a car door interlock conforming to 2.26.2.28, 2.14.4.2.46, and 2.14.4.2.57.		No comment	
2.14.4.2.3	**2.14.4.2.3** Car door and gate electric contacts closed detection means shall ~~(a)~~ prevent operation of the driving machine when the car door or gate is not in the closed position, except under one of the following conditions: **(1)**(a) when a hoistway access switch is operated (see 2.12.7) **(2)**(b) when a car-leveling or truck-zoning device is operated (see 2.26.1.6) **(3)**(c) when a bypass switch is activated (see 2.26.1.5) ~~(b) be positively opened by a lever or other device attached to and operated by the door or gate~~ ~~(c) be maintained in the open position by the action of gravity or by a restrained compression spring, or by both, or by positive mechanical means~~ ~~(d) be so designed or located that they shall not be accessible from within the car~~ ~~(e) not utilize mercury tube.~~		No comment	

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2.14.4.2.4	2.14.4.2.4 Car door and gate closed detection means using contacts to detect the closed position of the car door or gate shall (a) meet the requirements of 2.26.4.3.1 (b) be positively opened by a lever or other device attached to and operated by the door or gate (c) be maintained in the open position by the action of gravity or by a restrained compression spring, or by both, or by positive mechanical means (d) be so designed or located that they shall not be accessible from within the car (e) not utilize mercury tube switches		No comment	
2.14.4.2.5	2.14.4.2.5 Car door and gate closed detection means using SIL rated devices to detect the closed position of the car door or gate shall (a) meet the requirements of 2.26.4.3.2 (b) have a detection means that is operated directly by a member or other device attached to and operated by the door or gate (c) be so arranged that they can not detect the closed position of the car door or gate unless the door or gate is in the closed position (d) be tamper resistant such that it cannot be made ineffective from within the car		No comment	
2.14.4.2.6	2.14.4.2.4~~6~~ Car door interlocks shall (a) prevent operation of the driving machine when the car door is not in the closed and locked position, except (1) when the car is within the unlocking zone for that entrance (2) under the conditions specified in 2.14.4.2.3(a) (b) prevent opening of the car door from within the car, except when the car is in the unlocking zone for that entrance (c) hold the car door in the locked position by means of gravity or by a restrained compression spring, or by both, or by means of a positive linkage (d) be so located that they are not accessible from within the car when the car doors are closed (e) be designed in accordance with 2.12.2.		No comment	
2.14.4.2.7	2.14.4.2.~~6~~7 Each type and make of car door electric contact closed detection means, car gate electric contact closed detection means, and car door interlock shall (a) be type tested in conformance with 2.12.4.1 (b) be listed/certified in conformance with 2.12.4.2 (c) be marked in conformance with 2.12.4.3		No comment	
2.14.4.2.8	2.14.4.2.~~6~~8 A hoistway door interlock meeting the requirements of 2.12.2 and 2.12.4 shall be permitted to be used as a car door interlock.		No comment	
2.14.4.11	**2.14.4.11 Closed Position of Car Doors or Gates.** Car doors or gates shall be considered to be in the closed position under the following conditions: (a) for horizontally sliding doors or gates, when the clear open space between the leading edge of the door or gate and the nearest face of the jamb does not exceed 50 mm (2 in.) except where car doors are provided with a car door interlock(s), ~~10~~ 30 mm (~~0.375~~ 1.25 in.) (b) ... (c) for horizontally sliding center-opening doors, or vertically sliding biparting counterbalanced doors, when the door panels are within 50 mm (2 in.) of contact with each other, except where horizontally sliding center-opening car doors are provided with a car door interlock(s), ~~10~~ 30 mm (~~0.375~~ 1.25 in.)		No comment	Why was this changed to such a large door opening? Seems dangerous. Harold Thurmer will look into this.
2.14.5.7	2.14.5.7 **Restricted Opening of Car Doors.** Car doors of passenger elevators shall be provided with either (a) ~~be provided with~~ a car door interlock conforming to 2.14.4.2, or (b) ~~conform~~ a car door restrictor conforming to 2.14.5.7.1 through 2.14.5.7.~~5~~ 6.		No comment	
2.14.5.7.4	If the means used to restrict car door opening requires electrical power for its functioning, it shall comply with (a) through (d). (a) The means shall not use electrical power to maintain restricted opening of the car door in accordance with 2.14.5.7.1. (b) The means shall operate in accordance with 2.14.5.7.1 and 2.14.5.7.3 and the following: (1) An alternate power source shall be provided that shall permit the means to operate for not less than 1 h upon loss of normal power. (2) The alternate power source shall be (-a) monitored, and when it is detected that there is insufficient capacity to operate the means for not less than 1 h, an audible signal conforming to (d) shall operate (-b) provided with readily visible information that indicates the expiration date of the alternate power source in lettering not less than 5 mm (0.25 in.) high (c) On automatic operation, the portion of the means dependent on power shall be monitored, and when it is detected that it has failed to operate in accordance with 2.14.5.7.1, an audible signal conforming to (d) shall operate. (d) The audible signal required by (b)(2)(-a) or (c) shall be at least 10 dBA above ambient, not exceeding 80 dBA, measured inside the car.	If the means used to restrict car door opening requires electrical power for its functioning, it shall comply with (a) through (d). (a) The means shall not use electrical power to main- tain restricted opening of the car door in accordance with 2.14.5.7.1. (b) The means shall operate in accordance with 2.14.5.7.1 and 2.14.5.7.3 and the following: (1) An ~~alternate power source~~ auxiliary power supply shall be provided that shall permit the means to operate for not less than 1 h upon loss of normal building power. (2) The ~~alternate power source~~ auxiliary power supply shall be (-a) monitored, and when it is detected that there is insufficient capacity to operate the means for not less than 1 h, an audible signal conforming to (d) shall operate (-b) provided with readily visible information that indicates the expiration date of the ~~alternate power source~~ auxiliary power supply in lettering not less than 5 mm (0.25 in.) high (c) On automatic operation, the portion of the means dependent on power shall be monitored, and when it is detected that it has failed to operate in accordance with 2.14.5.7.1, an audible signal conforming to (d) shall operate. (d) The audible signal required by (b)(2)(-a) or (c) shall be at least 10 dBA above ambient, not exceeding 80 dBA, measured inside the car.	No comment	
2.14.5.7.5	2.14.5.7.5 **Strength.** The means to restrict door opening shall comply with 2.14.5.7.1 when subjected to the following static forces: (a) ~~a force of 1 000 N (225 lbf)~~ 135 N (30 lbf) applied in the opening direction of the door and at a location anywhere along the leading edge of the door. (b) 1 000 N (225 lbf) force applied over a period of 300 s with the force increasing incrementally, applied in the opening direction of the door and at a location as near to the restricting means as possible, but not to exceed 300 mm (12 in.).		Will this be demonstrated at inspection?	Why was this changed? Harold Thurmer will look into this. Is this design criteria or also to be measured at inspection?

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2.14.5.7.6	**2.14.5.7.6** Each type and make of car door restrictor shall be tested as follows: **(a)** Each type and make of car door restrictor shall conform to the engineering tests specified in 8.3.14. **(b)** The test shall be performed at either the manufacturer's facility or at a testing laboratory.		No comment	
2.14.5.9.2		**2.14.5.9.2** Glass doors, where provided, shall conform to the following requirements: … (b) The glass shall be not less than ~~60%~~ 50% of the total visible door panel surface area as seen from the car side of the doors. Door lap shall not be used in calculating glass size. …	Not sure what causes the 50% criteria or the 60% before that.	
2.14.7.1.3	**2.14.7.1.3** Each elevator shall be provided with auxiliary lighting and shall conform to the following: … **(g)** Battery-operated units, where provided, shall **(1)** comply with CSA C22.2 No. 141 or UL 924 (see Section 9) **(2)** have a 4 h rating minimum **(3)** be permanently connected to the car light branch circuit **(4)** have an output rating that includes the auxiliary lights and if connected, the emergency signaling devic~~s~~ (see 2.27.1.~~1.3~~) Designation Standard Publisher Applicable to … CSA C22.2 No. 141-15 ~~M1985 (R1992) Unit Equipment for~~ Emergency Lighting Equipment CSA US, Canada … UL 924 – 06 (R15) Standard for ~~Safety~~ Emergency Lighting and Power Equipment UL US, Canada	**2.14.7.1.3** Each elevator shall be provided with auxiliary lighting and shall conform to the following: **(d)** The ~~power source~~ auxiliary power supply shall be located on the car. **(e)** The ~~power source~~ auxiliary power supply shall be capable of maintaining the light intensity	No comment	
2.15.6.4	Wood used for platform stringers and platform floors and subfloors shall be structural quality lumber or exterior-type plywood conforming to the requirements of the following: (a) ASTM D245 (b) ASTM D198 (c) ANSI Voluntary Product Standard PS 1-74 or CSA 0151	Wood used for platform stringers and platform floors and subfloors shall be structural quality lumber or ~~exterior-type~~ plywood conforming to the requirements of the following: (a) ASTM D245 (b) ASTM D198 (c) ANSI Voluntary Product Standard PS 1 or CSA O151	No comment	
2.15.9			**SPS 318.1702 (6)**. Eliminate this with the changes in Section 8.7	
2.16.1.1			**SPS 318.1702 (7)** No changes	
2.16.3.1	**2.16.3.1 Plates Required and Locations.** Every elevator shall be provided with a capacity plate and a data plate complying with 8.13.1 ~~permanently and securely attached.~~ The capacity plate shall be located in a conspicuous position inside the car. The data plate shall be located on the car crosshead, or ~~inside the car~~ for underslung elevators having no crosshead or no exposed crosshead, in a conspicuous location on the car top or inside the car.		No comment	
2.16.3.2.2	**2.16.3.2.2** Data plates shall indicate **(a)**... **(f)** the percent counterweight overbalance range (see 2.24.2.3.5)		No comment	
2.16.3.3	**2.16.3.3 Material and Marking of Permanent Plates.** Plates shall comply with 8.13.1.		No comment	
2.16.5.1	**2.16.5.1 Signs Required.** Signs complying with 8.13.2, in addition to the capacity and data plates required by 2.16.3.1, shall be provided inside the car and shall be located in a conspicuous position and permanently and securely fastened to the car enclosure, subject to the requirements of 2.16.5.1.1 through 2.16.5.1.3.		No comment	
2.16.5.2	**2.16.5.2 Material and Marking of Signs.** Signs shall conform to 8.13.2 and the letters shall be not less than 13 mm (0.5 in.) high. ~~The sign shall conform to the requirements of ANSI Z535.4 or CAN/CSA-Z321 (see Part 9), except that the letters shall be not less than 13mm (0.5 in.) high. The sign shall be made of a durable material and shall be securely fastened.~~		No comment	
2.16.5.5	**2.16.7.5** A special capacity plate complying with 8.13.1 shall be provided inside the elevator car and located in a conspicuous place that shall bear the words "CAPACITY LIFTING ONE-PIECE LOADS" in letters, followed by figures giving the special capacity in kilograms (pounds) for lifting one-piece loads for which the machine is designed. ~~For material and size of letters, see 2.16.3.3.~~		No comment	
2.17.3 TABLE	**Table 2.17.3** Maximum and Minimum Stopping Distances for Type B Car Safeties with Rated Load at Maximum Car Governor Tripping speed ~~and Type B Counterweight Safeties~~		No comment	
2.17.12.1	**2.17.12.1** Parts of safeties, except springs, safety-rope drums, leading sheaves, and their supporting brackets and safety-jaw gibs, shall have a factor of safety not less than 3.5, and the materials used shall have an elongation of not less than 15% in a length of 50 mm (2 in.) when tested in accordance with ASTM E8. Forged, cast, or welded parts shall be stress relieved.	**2.17.12.1** Parts of safeties, except springs, safety-rope drums, leading sheaves, bearings, and their supporting brackets and safety-jaw gibs, shall have a factor of safety not less than 3.5, and the materials used shall have an elongation of not less than 15% in a length of 50 mm (2 in.) when tested in accordance with ASTM E8. Forged, cast, or welded parts shall be stress relieved.	No comment	
2.17.14			**SPS 318.1702 (8)** No changes	
2.17.14	**2.17.14 Marking Plates for Safeties** A ~~metal~~ marking plate complying with 8.13.3 shall be securely attached to each safety so as to be readily visible, and shall be marked ~~in a legible and permanent manner~~ with letters and figures not less than 6 mm (0.25 in.) in height indicating:		No comment	

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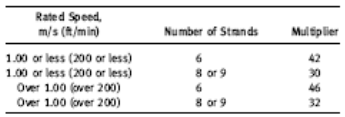
2.17.16	**2.17.16 Rail Lubricants and Lubrication Plate** Rail lubricants or coatings that will reduce the holding power of the safety, or prevent its functioning as required in 2.17.3, shall not be used (see 8.7 for maintenance requirements). A ~~metal~~ marking plate as required by ~~2.16.3.2~~ 8.13.3 shall be securely attached to the car crosshead in an easily visible location, and, where lubricants are to be used, shall carry the notation, "CONSULT MANUFACTURER OF THE SAFETY FOR THE CHARACTERISTICS OF THE RAIL LUBRICANT TO BE USED." If lubricants are not to be used, the plate shall so state. If lubricants other than those recommended by the manufacturer are used, a safety test shall be made to demonstrate that the safety will function as required by 2.17.3.		No comment	
2.18.5.3	**2.18.5.3 Governor-Rope Tag.** A metal data tag shall be securely attached to the governor-rope fastening. This data tag shall bear the following wire-rope data: (a)... ... (h) ... A new tag shall be installed at each rope renewal. ~~The material and marking of the~~ rope data tag shall ~~conform to 2.16.3.3.3~~ comply with 8.13.3, except that the height of the letters and figures shall be not less than 1.5 mm (0.06 in.).		No comment	
2.18.7.4 TABLE	 Rated Speed, m/s (ft/min) | Number of Strands | Multiplier 1.00 or less (200 or less) | 6 | 42 1.00 or less (200 or less) | 8 or 9 | 30 Over 1.00 (over 200) | 6 | 46 Over 1.00 (over 200) | 8 or 9 | 32			
2.18.9	**2.18.9 Speed-Governor Marking Plate** A ~~metal~~ marking plate complying to 8.13.3 shall be securely attached to each speed governor and shall be marked ~~in a legible and permanent manner~~ with letters and figures not less than 6 mm (0.25 in.) in height indicating the following:		**SPS 318.1702 (9)** No changes	
2.19.1.1	**2.19.1.1** Ascending car overspeed protection shall be provided to prevent the car from striking the hoistway overhead structure as a result of a failure in (a) the electric driving-machine motor, brake, coupling, shaft, or gearing (b) the control system (c) any other component on which the speed of the car depends, except the suspension ropes and the drive sheave of the traction machine	**2.19.1.1** Ascending car overspeed protection shall be provided to prevent the car from striking the hoistway overhead structure as a result of a failure in (a) the electric driving-machine motor, brake, coupling, gear shaft, or gearing (b) the control system (c) any other component on which the speed of the car depends, except ~~the suspension ropes and the drive sheave of the traction machine~~ (1) the suspension ropes and the drive sheave of the traction machine (2) the driving machine sheave shaft, provided that any failure of this sheave shaft does not result in ascending car overspeed	No comment	
2.19.2.1	**2.19.2.1 Purpose.** Protection shall be provided with a means to detect unintended car movement (see Section 1.3) and stop the car movement, as a result of failure in any of the following: **(a)** electric driving-machine motor, brake, coupling, gear shaft, or gearing **(b)** control system **(c)** any other component ~~upon~~ on which intended car movement depends, except the suspension means and drive sheave of the traction machine	**2.19.2.1 Purpose.** Protection shall be provided with a means to detect unintended car movement (see Section 1.3) and to stop the car movement, as a result of failure in any of the following: (a) electric driving-machine motor, brake, coupling, gear shaft, or gearing (b) control system (c) any other component on which intended car movement depends, except (1) the suspension ropes and the drive sheave of the traction machine ~~the suspension means and drive sheave of the traction machine~~ (2) the driving machine sheave shaft, provided that any failure of this sheave shaft does not result in unintended car movement	No comment	
2.19.3.2.(b)	**2.19.3.2** The emergency brake is permitted to consist of one or more devices and shall. (a)... (1)... (5) brake drum or braking surface of the driving-machine brake, provided that one or more of the following are met: **(-a)** the driving-machine brake surface is integral (cast or welded) with ~~or directly attached to~~ the driving machine sheave. **(-b)** the driving-machine brake surface is directly attached to the driving machine sheave. **(-c)** the driving-machine brake acts directly on the driving machine sheave or sheave shaft and is fully constrained mechanically in the direction of application of the braking torque such that the braking torque is transmitted to the driving sheave. Attachments, where used, shall conform to 2.24.3 and 2.24.4.1. Welding, where used, shall conform to Section 8.8.		No comment	
2.19.3.2(i)	**(i)** be designed so that the factors of safety based on the maximum stresses developed in the parts subject to load during the operation of the emergency brake shall comply with the following: **(1)** Where an emergency brake is applied ~~only~~ when protecting against either an ascending car overspeed condition or unintended car movement with the car and hoistway doors open, the minimum factors of safety, when applied during ~~the retardation phase of emergency braking~~, shall be not less than those specified in 2.17.12.1. **(2)** Where an emergency brake is applied as permitted in 2.19.3.2(d), (e), and (f), the minimum factors of safety, when applied during the retardation phase of emergency braking normal or continuous-pressure operation, shall be not less than those specified in 2.24.3 ~~2.24.3.1~~ except ~~and~~ 2.24.3.2. Degradation of the emergency brake due to wear shall be considered.		No comment	

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2.19.3.2.(k)	**(k)** if the design of the emergency brake is such that field adjustment or servicing is required and the emergency brake acts on the brake drum or braking surface of the driving-machine brake, it shall be provided with a sign complying with 8.13.2 stating "EMERGENCY BRAKE." The sign shall be located on the emergency brake at a location visible from the area likely to require service. ~~The sign shall be of such material and construction that the letters shall remain permanently and readily legible. The height of the letters shall be not less than 6 mm (0.25 in.).~~		No comment	
2.19.3.3	**2.19.3.3 Marking Plate Requirements.** The emergency bake shall be provided with a marking plate complying with 8.13.3 indicating the range of total masses (car with attachments and its load) for which it is permitted to be used, the range of speeds at which it is set to operate, and criteria such as rail lubrification requirements that are critical to its performance.		No comment	
2.20.2.1	**2.20.2.1 On Crosshead Data Plate.** The crosshead data plate complying with 8.13.1 ~~required by 2.16.3~~ shall bear the following suspension-means data: ~~(a)~~... ~~(b)~~...		No comment	
2.20.2.2.1	**2.20.2.2.1** Pertinent data on a data tag complying with 8.13.3 located on the suspension means shall be provided by one of the following: ~~(a)~~ ... ~~(b)~~... ~~(c)~~ .... ~~(d)~~ If (a) or (c) applies, the material and marking of the tag shall comply with 8.13.3 ~~conform to 2.16.3.3~~, except that the height of the letters and figures shall be not less than 1.5 mm (0.06 in.). ~~(e)~~...		No comment	
2.20.2.2.2	**2.20.2.2.2** The following data on a data tag complying with 8.13.3 shall be provided: ~~(a)~~		No comment	
2.20.8.1	$f = \frac{S \times N}{W}$	**2.20.8.1 Protection Against Traction Loss.** All electric traction elevators shall be provided with a traction-loss detection means to detect loss of traction between suspension members and the drive sheave [see 8.6.1.2.2~~(b)(5)~~(c)(4)]. … (d) once actuated by traction loss, comply with the following: (1) The traction-loss detection means shall remain actuated until it is manually reset. (2) The car shall not start or run unless the traction loss detection means is manually reset [see 8.6.1.2.2~~(b)(5)~~(c)(4)and 8.6.11.11]. … (f) be included in the on-site documentation [see 8.6.1.2.2~~(b)(5)~~(c)(4)] with sufficient detail to ensure that testing can be accomplished by elevator personnel	No comment	
2.20.8.1 d	**2.20.8.1 Protection Against Traction Loss.** All electric traction elevators shall be provided with a traction-loss detection means to detect loss of traction between suspension members and the drive sheave [see 8.6.1.2.2(b)(5)]. This means shall … **(d)** once actuated by traction loss, comply with the following: … **(2)** The car shall not start or run unless the traction-loss detection means is manually reset [see 8.6.1.2.2 ~~2.2.1~~(b)(5) and 8.6.11.11].		No comment	
2.20.8.2		**2.20.8.2 Broken Suspension Member.** All electric traction elevators, excluding those with steel wire ropes greater than or equal to 8 mm (0.315 in.), shall be provided with a broken-suspension-member detection means. The means shall (a) operate at or before the separation of a suspension member (b) when actuated, automatically function to: (1) prevent the elevator from automatically starting if stopped at a landing (2) stop the ~~car~~ elevator ~~in a controlled manner~~ at ~~or before~~ the next available landing ~~for which a demand was registered, and the '~~ (3) cause automatic power-operated doors to open and then initiate reclosing within 15 s when stopped at a landing. The door open button(s) shall remain operative and when released, automatic closing shall be initiated within 15 seconds. (4) prevent a stopped elevator from shall not be permitted to restarting except on hoistway access or inspection operation (c) be arranged to be tested in accordance with the requirements in 8.10.2.2.2(ss)(1), and instructions for testing shall be included in the on-site documentation [see 8.6.1.2.2~~(b)(5)~~(c)(4)] with sufficient detail to ensure that testing can be accomplished by elevator personnel (d) remain actuated until it is manually reset NOTE [2.20.8.2(d)]: This does not require the means itself to remain actuated, only that the elevator shall not be permitted to restart except on hoistway access or inspection operation until a manual reset is performed.	No comment	

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2.20.8.3		**2.20.8.3 Suspension Member Residual Strength.** All electric traction elevators, excluding those with steel wire ropes, shall be provided with residual-strength detection means. The means shall (a) operate before any suspension member is reduced in strength to 60% of its rated breaking force (b) when actuated, except as specified in 2.20.8.3(e), automatically function to: (1) prevent the elevator from automatically starting if stopped at a landing (2) stop the ~~car~~ elevator at the next available landing, ~~open the doors and~~ (3) cause automatic power-operated doors to open and then initiate reclosing within 15 s when stopped at a landing. The door open button(s) shall remain operative and when released, automatic closing shall be initiated within 15 seconds. (4) prevent a stopped ~~the~~ elevator at a landing from restarting except on hoistway access or inspection operation (c) be arranged to be tested in accordance with the requirements in 8.10.2.2.2(ss)(2), and instructions for testing shall be included in the on-site documentation [see 8.6.1.2.2~~(b)(5)~~(c)(4)] with sufficient detail to ensure that testing can be accomplished by elevator personnel (d) remain actuated until it is manually reset (e) be ineffective when Phase I Emergency Recall Operation, Phase II Emergency In-Car Operation, Occupant Evacuation Operation, Operation of Elevators Under Earthquake Emergency Conditions (8.4.10), or Flood Detection operation is initiated NOTE [2.20.8.3(d)]: This does not require the means itself to remain actuated, only that the elevator shall not be permitted to restart except on hoistway access, Phase I Emergency Recall Operation, Phase II Emergency In-Car Operation, Occupant Evacuation Operation, Earthquake Emergency Condition, Flood Detection Operation or inspection operation until it is manually reset.	No comment	
2.20.9.4.5	Table 2.20.9.4.5 Relation of Rope Diameter to Diameter of the Small Socket Hole Nominal Rope Diameter, mm / Maximum Diameter of Hole, d', mm / Nominal Rope Diameter, in. / Maximum Diameter of Hole, d', in. 8 to 12 inclusive / 2.5 larger than nominal rope diameter / 5/16 to 7/16 inclusive / 1/32 larger than nominal rope diameter 13 to 19 inclusive / 3 larger than nominal rope diameter / 1/2 to 3/4 inclusive / 1/8 larger than nominal rope diameter 22 to 29 inclusive / 4 larger than nominal rope diameter / 7/8 to 1 1/4 inclusive / 5/32 larger than nominal rope diameter 32 to 40 inclusive / 5 larger than nominal rope diameter / 1 3/8 to 1 1/2 inclusive / 3/16 larger than nominal rope diameter			
2.20.10.9	**2.20.10.9** Each device shall be ~~permanently~~ marked with the name or trademark of the manufacturer by means ~~of metal~~ tags or plates complying to 8.13.1 with the following data of the wire rope for which they are designated to be used: (a)… The ~~material and marking of the tags or plates shall conform to 2.16.3.3, except that the~~ height of the letters and figures shall be not less than 1.5 mm (0.06 in.).		No comment	
2.22.3.1	**2.22.3.1 Stroke.** The stroke of the buffer spring, as marked on its marking plate complying with 2.22.3.3, shall be equal to or greater than the value specified in Table 2.22.3.1.		No comment	
2.22.3.3	**2.22.3.3 Marking Plates.** Each spring buffer shall be provided with a marking plate complying with 8.13.3 showing its load rating and stroke and the number of springs. Where the springs are removable, each spring shall be identified, and the assembly marking plate shall indicate ~~this identification. Markings shall be made in a permanent and legible manner~~.		No comment	
2.22.4.8	**2.22.4.8 Compression of Buffers When Car Is Level With Terminal Landings.** Car and counterweight oil buffers of the mechanical spring-return type shall be permitted to be compressed not to exceed 25% of their stroke when the car is level with the terminal landings (see 2.4.2.1).	**2.22.4.8 Compression of Buffers When Car Is Level With Terminal Landings.** Car and counterweight oil buffers of the mechanical spring-return type shall be permitted to be compressed not to exceed 25% of their stroke when the car is level with the terminal landings (see 2.4.2.1(b)).	No comment	Do we need to addressthis with a code change between **SPS 318.1702(9) and (10)**? Council may prefer to not have cars strike spring or oil buffers.
2.22.4.10	**2.22.4.10 Load Ratings of Oil Buffers.** The minimum and maximum load ratings of car and counterweight oil buffers, as indicated on the buffer marking plate conforming to 2.22.4.11, shall conform to 2.22.4.10.1 through 2.22.4.10.3.		No comment	
2.22.4.11	**2.22.4.11 Buffer ~~Marking~~ Data Plate.** Every installed oil buffer shall have permanently attached thereto a ~~metal~~ data plate complying with 8.13.1 marked by the manufacturer ~~in a legible and permanent manner~~ indicating (a)...		No comment	
2.22.5	**2.22.5.1 Retardation.** Buffers shall not develop **(a)** an average retardation in excess of 9.81 m/s2 (32.2 ft/s2), and **(b)** a retardation greater than 24.5 m/s2 (80.5 ft/s2), having a duration exceeding 0.04 s with any load in the car, from rated load to a minimum load of 70 kg (154 lb), when the buffers are struck with an initial speed of not more than 115% of the rated speed, and ~~**(c)** a maximum retardation in excess of 58.86 m/s2 (193.2 ft/s2) as measured using a 100 Hz low pass filter~~		No comment	
2.24.2.3.5	**2.24.2.3.5 Percent Counterweight Overbalance Data Plate.** The designed maximum and minimum percent counterweight overbalance range, that is required to meet the traction requirements of 2.24.2.3.1, 2.24.2.3.2 or 2.24.2.3.3, shall be provided on a data plate. This data plate shall be integral with or adjacent to the data plate required in 2.16.3. Where this data plate is adjacent to the data plate required by 2.16.3, the material and markings shall conform to 2.16.3.3. **Note:** **1)** The percent counterweight overbalance, is the percent of an elevators rated capacity, that the counterweight is heavier than the car. **2)** The percent counterweight overbalance range, refers to the upper and lower limits, expressed as a percentage of elevators rated capacity, that the counterweight is heavier than the car.		No comment	

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2.24.3		**2.24.3** The factor of safety to be used in the design of driving machines, driving machine brakes, sheaves, and drums used with suspension means and compensating means shall be not less than (a) 8 for metals having an elongation of at least 14% in a gauge length of 50 mm (2 in.) when tested in accordance with ASTM E8. (b) 10 for cast iron or for metals having an elongation of less than 14% in a gauge length of 50 mm (2 in.) when tested in accordance with ASTM E8. (c) 10 for sheaves of plastic, fiber-reinforced plastic, or combinations thereof. The material used shall ensure that the factor of safety is not less than 8 during the service life of the sheave. The load to be used in determining the factor of safety shall be the resultant of the maximum tensions in the suspension means leading from the sheave or drum with the elevator at rest and with the rated load in the car. Factor of safety shall not apply to the friction surfaces of driving machine brakes.	No comment	
2.24.8.3	**2.24.8.3 Driving-Machine Brake.** The driving machine shall be equipped with a friction brake applied by a spring or springs, or by gravity, and released electromechanically or electrohydraulically (see Section 1.3) in conformance with 2.26.8. The driving-machine brake, on its own, shall be capable of (a) holding the car at rest with its rated load (see 2.16.8 and 2.26.8). (b) holding the empty car at rest. (c) decelerating the empty car traveling in the up direction from the speed at which the governor overspeed switch is set. Any deceleration not exceeding 9.8 m/s2 (32.2 ft/s2) is acceptable provided that all factors such as, but not limited to, system heat dissipation and allowable buffer striking speeds are considered.	**2.24.8.3 Driving-Machine Brake.** The driving machine shall be equipped with a friction brake applied by a spring or springs, or by gravity, and released electromechanically or electrohydraulically (see Section 1.3) in conformance with 2.24.3 and 2.26.8. The driving-machine brake, on its own, shall be capable of (a) holding the car at rest with its rated load (see 2.16.8 and 2.26.8). (b) holding the empty car at rest. (c) decelerating the empty car traveling in the up direction from the speed at which the governor overspeed switch is set. Any deceleration not exceeding 9.8 m/s2 (32.2 ft/s2) is acceptable provided that all factors such as, but not limited to, system heat dissipation and allowable buffer striking speeds are considered.	No comment	
2.24.8.5	**2.24.8.5 ~~Marking Plates for Brakes~~ Brake Information Plates.** The brake setting and method of measurement shall be ~~permanently and legibly marked~~ provided on the driving machine on a data plate complying with 8.13.1 or a marking plate complying with 8.13.3 and shall be readily visible after installation.	**2.24.8.5 ~~Brake Information Plates.~~ Driving Machine Brake Data or Marking Plates.** The brake setting and method of measurement shall be provided on the driving machine on a data plate complying with 8.13.1 or a marking plate complying with 8.13.3 and shall be readily visible after installation. The following information shall be conveyed on the data or marking plate: (a) the type of brake (see 2.24.8.7) (b) for Type A brakes (1) adjustments on the brakes that affect the brakes' holding capacity or decelerating capacity (2) the method of measuring these adjustments to verify the brakes' correct holding capacity and decelerating capacity (see 2.24.8.3) (c) for Type B brakes "Brake holding and decelerating capacity not field adjustable—see on-site documentation for method to verify" Any unique or product-specific procedures for the adjustment or method of measurement of Type B driving machine brakes shall be included in the on-site documentation [see 8.6.1.2.2(c)(5)] with sufficient detail to ensure that testing can be accomplished by elevator personnel.	No comment	
2.24.8.7.1		**2.24.8.7.1** Identification. Driving machine brakes shall be identified as either Type A or Type B, and the identification shall be included on the brake data or marking plate [see 2.24.8.5(a)].	No comment	
2.24.9.2.1	**2.24.9.2.1** Belt sets shall be selected on the basis of the manufacturer's rated breaking strength and a factor of safety of 10. Chain and sprocket sets shall be selected on the basis of recommendations set forth in the Supplementary Information section of ASME B29.1~~M~~, using a service factor of 2. Offset links in chain are not permitted. A17 Mechanical Design Committee **Rationale:** B29.1M does not exist. The current document is ASME B29.1 - 2016.		No comment	
2.25.4.1.1		**2.25.4.1.1** If the normal terminal stopping device fails to slow down the car at the terminal as intended, the emergency terminal speed-limiting device shall reduce the car and counterweight speed such that the rated buffer striking speed is not exceeded. The emergency terminal speed-limiting device shall remove power from the driving-machine motor and brake and shall either (a) apply an emergency brake(s) conforming to 2.19.3 in combination with the removal of power from the driving-machine motor and brake (see also 2.25.4.1.3) or (b) apply an emergency brake(s) conforming to 2.19.3 if removal of power from the driving-machine motor and brake fails to reduce the car and counterweight speed as intended	No comment	
2.24.4.2.2 (b) (1)	**2.24.4.2.2 (b) (1)** A common actuating means (e.g., a driving-machine shaft or brake drum) shall be permitted, provided that it is not dependent on any of the following connection types, unless the connection is continuously monitored: (-a) traction (excluding the traction between the drive sheave and suspension means and the traction between the governor and governor rope) (-b) friction (except for interference fits) (-c) a flexible coupling where positive engagement is not assured between coupling halves Where monitoring is required, the monitoring shall detect a failure that prevents conformance with this requirement and shall cause the electric power to be removed from the elevator driving-machine motor and brake.	**2.24.4.2.2 (b) (1)** A common actuating means (e.g., a driving-machine shaft or brake drum) shall be permitted, provided that it is not dependent on any of the following connection types, unless the connection is continuously monitored: (-a) traction (excluding the traction between the drive sheave and suspension means and the traction between the governor and governor rope) (-b) friction (except for interference fits), or (-c) a flexible coupling where positive engagement is not assured between coupling halves Where monitoring is required, the monitoring shall detect a failure that prevents conformance with this requirement and shall cause the electric power to be removed from the elevator driving-machine motor and brake.	No comment	

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2.26.1.4.2		**2.26.1.4.2 Top-of-Car Inspection Operation.** Top-of-car inspection operation shall conform to 2.26.1.4.1 and the following: (a) A stop switch (see 2.26.2.8) shall be permanently located on the car top and readily accessible to a person, while standing at the hoistway entrance normally used for access to the car top. (b) The transfer switch [see 2.26.1.4.1(b)] shall be located on the car top and shall be so designed as to prevent accidental transfer from the "INSPECTION" position to the "NORMAL" position. Where the inspection operating devices are of the portable type [see 2.26.1.4.2(e)], the transfer switch shall be permitted to be included in the portable unit.	No comment	
2.26.1.5	**2.26.1.5** Inspection Operation With Open Door Circuits. A single set of switches marked "CAR DOOR BYPASS" and "HOISTWAY DOOR BYPASS" shall be provided. The switches shall be accessible from outside of the hoistway. They shall be located **(a)** in a controller enclosure for the elevator located outside the hoistway in a control room, a control space, the machine room, a machinery space, or a motor controller complying with 2.7.6.3.2; or **(b)** in the inspection and test panel (see 2.7.6.5) The switches shall prepare the control system so that, only when top-of-car or in-car inspection operation is activated, the car shall be permitted to be moved with ~~open door contacts~~ the door closed detection means or door locked detection means bypassed. The switches shall conform to 2.26.1.5.1 through 2.26.1.5.8.		No comment	
2.26.1.5.1		**2.26.1.5.1** When switching to either "BYPASS" or the "OFF" position, the switches shall either (a) have contacts that are positively opened mechani- cally; their opening shall not be solely dependent on springs or (b) be SIL rated with a SIL equal to or greater than the SIL indicated for the applicable device shown in Table 2.26.4.3.2	No comment	
2.26.1.5.5	**2.26.1.5.5** When the "CAR DOOR BYPASS" switch is in the "BYPASS" position, it shall permit top-of-car and in-car inspection operation with ~~open~~ bypassed car door interlocks or car door or gate ~~contacts~~ closed detection means.		No comment	
2.26.1.5.6	**2.26.1.5.6** When the "HOISTWAY DOOR BYPASS" switch is in the "BYPASS" position, it shall permit top-of-car and in-car inspection operation with ~~open~~ bypassed hoistway door interlocks or ~~contacts~~ bypassed door closed detection means.		No comment	
2.26.1.5.7	**2.26.1.5.7** Each of the "BYPASS" switches shall be permitted to be replaced by a set of switches used to bypass individual groups of hoistway door ~~contacts~~ interlocks, car door interlocks, or car door or gate closed detection means. Each switch in this set shall be marked to identify the specific hoistway or car door ~~contacts~~ interlocks or door or gate closed detection means bypassed.		No comment	
2.26.1.5.8	**2.26.1.5.8** A warning sign shall be mounted adjacent to the "BYPASS" switches stating, "Jumpers shall not be used to bypass hoistway door or car door ~~electric contacts~~ interlocks or door or gate closed detection means."		No comment	
2.26.1.7	**2.26.1.7 Executable Software**			
2.26.1.7.1	**2.26.1.7.1** Executable software used in performing one or more of the functions listed below shall have a USI for each software version. Changes in executable software for any of the following functions shall require a new USI: (a) Working Areas in the Pit (2.7.5.2) with device active 2.7.5.2.1(b)(3) (b) Hoistway Access Switches (2.12.7) (c) Power operation of hoistway doors and car doors (2.13) (d) Protection Against Traction Loss (2.20.8.1) (e) Broken Suspension Member (2.20.8.2) (f) Suspension-Member Residual Strength (2.20.8.3) (g) Normal Terminal Stopping Devices (2.25.2) (h) Emergency Terminal Stopping Means (2.25.4) (i) Operating Devices and Control Equipment (2.26) (j) Emergency Communications (2.27.1.1) (k) Emergency or Standby Power System (2.27.2) (l) Firefighters' Emergency Operation: Automatic Elevators (2.27.3 through 2.27.6) (m) Occupant Evacuation Operation (2.27.11) (n) Emergency Operation and Signal Devices (8.4.10)	**2.26.1.7.1** Executable software used in performing one or more of the functions listed below shall have a unique software identifier (USI) for each software version. Changes in executable software for any of the following functions shall require a new USI: (a) working areas in the pit (see 2.7.5.2) with device active [see 2.7.5.2.1(b)(3)] (b) hoistway access switches (see 2.12.7) (c) power operation of hoistway doors and car doors (see Section 2.13) (d) protection against traction loss (see 2.20.8.1) (e) broken suspension member (see 2.20.8.2) (f) suspension-member residual strength (see 2.20.8.3) (g) normal terminal stopping devices (see 2.25.2) (h) emergency terminal stopping means (see 2.25.4) (i) operating devices and control equipment (see Section 2.26) (j) emergency communications (see 2.27.1.1) (k) emergency or standby power system (see 2.27.2) (l) Firefighters' Emergency Operation: automatic elevators (see 2.27.3 through 2.27.6) (m) Occupant Evacuation Operation (see 2.27.11) (n) emergency operation and signal devices (see 8.4.10) (o) test enable operation (see 2.26.14) (p) any operating mode restricted to Group 1 (see 8.1.2) (q) restricted opening of car doors (see 2.14.5.7) (r) the additional requirements for passenger overload in the down direction (see 2.16.8) (s) a function, device, or means that is required by the Code to be manually reset	No comment	
2.26.1.7.2	**2.26.1.7.2** Software based parameters are permitted and shall not modify the USI when adjusted or selected in the field.	**2.26.1.7.2** Software-based parameters are permitted and shall not modify the USI when adjusted or selected in the field. See also 8.14.1(b).	No comment	
2.26.1.7.3	**2.26.1.7.3** The Control system shall include a means to view the USI(s) on-site. Examples of viewing means include, but are not limited to, one or more of the following: (a) electronic viewing that is part of the elevator or group of elevators, (b) labeling of device, (c) labeling or tags on the control or assembly.		No comment	
2.26.2.14	**2.26.2.14 Hoistway Door Interlocks and Hoistway Door ~~Electric Contacts~~ Closed Detection Means.** Hoistway door interlocks or hoistway door ~~electric contacts~~ closed detection means conforming to 2.12 shall be provided for all elevators.		No comment	
2.26.2.15	**2.26.2.15 Car Door and Gate ~~Electric Contacts~~ Closed Detection Means.** Car door or gate ~~electric contacts~~ closed detection means, conforming to 2.14.4.2, shall be provided for all elevators; except when a car door interlock, conforming to 2.26.2.28 is provided.		No comment	

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2.26.2.36	**2.26.2.36** Working Platform Electrical Device. An electric contact conforming to 2.14.4.2.~~3~~4(b), (c), and (e) shall be provided where required by 2.7.5.3.1.		No comment	
2.26.2.37	**2.26.2.~~3~~7** Retractable Stop Electrical Device. An electric contact conforming to 2.14.4.2.~~3~~4(b), (c), and (e) shall be provided where required by 2.7.5.5(a).		No comment	
2.26.2.38		**2.26.2.38** ~~Retractable~~ Ladder Electrical Device. An ladder electrical contact device conforming to the following shall be provided where required by 2.2.4.2.7 or 2.2.4.2.8. Mercury tube switches shall not be used for this device. ~~(a) be positively opened by a device attached to and operated by the ladder~~ ~~(b) not use mercury tube switches~~	No comment	
2.26.4.2		**2.26.4.2** Electrical equipment shall comply with requirements of 2.26.4.2.1 through 2.26.4.2.4. ~~be listed/certified and labeled/marked. CSA B44.1/ASME A17.5 defines the scope and applicable requirements for this listing/certification.~~	No comment	
2.26.4.2.1		**2.26.4.2.1** The following shall be listed/certified and labeled/marked in accordance with requirements of CSA B44.1/ASME A17.5 (a) motor controllers (b) motion controllers (c) operation controllers (d) assemblies containing (a), (b), or (c)	No comment	
2.26.4.2.2		**2.26.4.2.2** Operating devices shall be listed/certified and labeled/marked to: (a) CSA B44.1/ASME A17.5, or (b) the approved product safety standard or code applicable to the country where the equipment is installed (e.g., Canada or the USA)	No comment	
2.26.4.2.3		**2.26.4.2.3** Electrical equipment that is not an electrical protective device, does not perform any other safety function(s) and it is not described in 2.26.4.2.1, and 2.26.4.2.2 is not required to be listed/certified if: (a) the equipment does not include any component operating at voltage greater than 30 V rms or 42.4 V peak, (b) the equipment is located entirely in a Class 2 circuit in accordance with CSA C22.1, Part 1 or NFPA 70, as applicable, and is supplied with a certified/listed Class 2 power supply/transformer, and (c) failure of the equipment shall not render an electrical protective device ineffective.	No comment	
2.26.4.2.4		**2.26.4.2.4** Electrical equipment not covered by 2.26.4.2.1, 2.26.4.2.2, or 2.26.4.2.3 shall be listed/certified and labeled/marked to the approved safety standard or code applicable to the country where the equipment is installed (e.g., Canada or the USA).	No comment	
2.26.4.3		**2.26.4.3** The devices covered by 2.26.2 and 2.26.14.1 shall meet the requirements of either 2.26.4.3.1 or 2.26.4.3.2. The SIL rating of the test enable device (see 2.26.14.1) that does not comply with 2.26.4.3.1 shall be not less than SIL 3.	No comment	
2.26.4.3.1		**2.26.4.3.1** The devices covered by 2.26.2 shall have contacts that are positively opened mechanically; their opening shall not be solely dependent on springs. Exceptions are devices described by 2.26.2.4, 2.26.2.19, 2.26.2.29, and 2.26.2.30; and 2.26.2.12, ~~and~~ 2.26.2.16 and 2.26.2.38 where magnetically operated, optical, or solid-state devices are used. NOTE: Positive opening is achieved when all the contact breaking elements are brought to their open position and when, for a significant part of the travel, there are no resilient members (e.g., springs) between the moving contacts and the part of the actuator to which the actuating force is applied. An example of this is a contact complying with the requirements of IEC 60947-5-1:2004, Annex K. NOTE: Positive opening is achieved when all the contact breaking elements are brought to their open position and when, for a significant part of the travel, there are no resilient members (e.g., springs) between the moving contacts and the part of the actuator to which the actuating force is applied. An example of this is a contact complying with the requirements of IEC 60947-5-1:2004, Annex K.	No comment	
2.26.4.3.2	**2.26.4.3.2 TABLE TERMINLOLOGY REVISED**		No comment	
2.26.4.4	**2.26.4.4** Control equipment shall be tested in accordance with the testing requirements of ISO 22200:2009. Control equipment tested in accordance with the testing requirements of EN 12016:1998 prior to one year after the effective date of the 2013 Edition of this Code need not be retested in accordance with the testing requirements of ISO 22200:2009. The control equipment shall be exposed to interference levels at the test values specified for "safety circuits." The interference shall not cause any of the conditions described in 2.26.9.3.1(a) through (e) or render the traction-loss detection means ineffective, and shall not cause the car to move while on inspection operation. Testing shall be performed at a minimum of two frequencies in each of the ranges specified for safety circuits in table 1 through table 7 of ISO 22200:2009. One frequency shall be within 5% of the low value of each range, the second frequency shall be within 5% of the top value of each range		Testing would be exptected to be factory testing and not ncessarily in the presence of the inspector	
2.26.4.5	**2.26.4.5** In jurisdictions enforcing CSA C22.1, power supply line disconnecting means shall not be opened automatically by a fire alarm system.	**2.26.4.5** In jurisdictions enforcing CSA C22.1, ~~power supply line~~ main line power disconnecting means shall not be opened automatically by a fire alarm system.	No comment	

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SECTION	TEXT	TEXT		
2.26.5	**2.26.5 System to Monitor and Prevent Automatic Operation of the Elevator With Faulty Door ~~Contact~~ Circuits** Means shall be provided to monitor the position of power-operated car doors that are mechanically coupled with the landing doors while the car is in the ~~landing~~ unlocking zone, in order **(a)** to prevent automatic operation of the car if the car door is not closed (see 2.14.4.11), regardless whether the portion of the circuits incorporating the car door ~~contact~~ closed detection means, car door interlock or the interlock of the landing door coupled with the car door, or both, are closed or open, except as permitted in 2.26.1.6 **(b)** to prevent the power closing of the doors during automatic operation if the car door is fully open and any of the following conditions exist: **(1)** the car door ~~contact is~~ closed detection means has detected the closed position, or the car door interlock detection means has detected the closed and locked position, ~~or the portion of the circuit, incorporating this contact is bypassed~~ **(2)** the interlock ~~contact~~ detection means of the landing door that is coupled to the opened car door ~~is closed~~ has detected the closed and locked position, ~~or the portion of the circuit, incorporating this contact is bypassed~~ **(3)** the car door ~~contact~~ closed detection means has detected the closed position, or the car door interlock detection means has detected the closed and locked position and the interlock ~~contact~~ detection means of the landing door that is coupled to the opened car door are closed has detected the closed and locked position, ~~or the portions of the circuits incorporating these contacts are bypassed.~~ **(4)** the portions of the circuits incorporating the closed detection means or closed and locked detection means of the car door or landing door that is coupled to the opened car door are bypassed.	**2.26.5 System to Monitor and Prevent Automatic Operation of the Elevator With Faulty Door Circuits**	No comment	
2.26.5.1		**2.26.5.1 Power Operated Mechanically Coupled Doors.** Means shall be provided to monitor the position of power-operated car doors that are mechanically coupled with the closed landing doors while the car is in the unlocking zone, in order to (a) prevent automatic operation of the car if the car door is not closed (see 2.14.4.11), regardless of whether the portion of the circuits incorporating the car door closed detection means, car door interlock, or the ~~interlock~~door locked detection means of the landing door coupled with the car door, or any combination thereof, is closed or open, except as permitted in 2.26.1.6 (b) prevent the power closing of the doors during automatic operation if the car door is fully open and any combination of the following conditions exist: ~~i.~~ (1) the car door closed detection means has detected the closed position or the car door interlock detection means has detected the closed and locked position ~~ii.~~ (2) the ~~interlock~~door locked detection means of the landing door that is coupled to the opened car door has detected the closed and locked position except as required in 2.27.3.3.9 ~~iii. the car door closed detection means has detected the closed position or the car door interlock detection means has detected the closed and locked position and the interlockdetection means of the landing door that is coupled to the opened car door has detected the closed and locked position~~ ~~iv.~~ (3)the portions of the circuits incorporating the closed detection means ~~or closed and~~door locked detection means of the car door or landing door that is coupled to the opened car door are bypassed	No comment	
2.26.5.2		**2.26.5.2** Power Operated Car Doors with Manually Operated Swing Hoistway Doors. Means shall be provided to monitor the position of the car doors while the car is in the unlocking zone, in order to (a)prevent automatic operation of the car if the car door is not closed (see 2.14.4.11), regardless of whether the portion of the circuits incorporating the car door closed detection means, car door interlock, or the door locked detection means of the landing door, or any combination thereof, is closed or open, except as permitted in 2.26.1.6 (b)prevent the power closing of the car door during automatic operation if the car door is fully open and any combination of the following conditions exist: (1)the car door closed detection means has detected the closed position or the car door interlock detection means has detected the closed and locked position (2)the door locked detection means of the landing door associated with the opened car door has detected the closed and locked position, except as required in 2.27.3.3.9 (3)the portions of the circuits incorporating any combination of the following are bypassed: (-a)closed detection means of the car door (-b)door locked detection means of the car door (-c)door locked detection means of the landing door associated with the opened car door	No comment	

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2.26.7		**2.26.7** The installation of capacitors or other devices or means, the operation or failure of which will cause unsafe operation of the elevator, is prohibited. ~~No permanent device that will make the traction-loss detection means or any required electrical protective device ineffective shall be installed except as provided in 2.7.6.5.2(h), 2.12.7.1, 2.26.1.4.2(g), 2.26.1.5, and 2.26.1.6 (see 8.6.1.6.1).~~ Means (e.g., hardware, software, or parameter) that render electrical protective devices (see 2.26.2) or the traction-loss detection means (see 2.20.8.1) ineffective shall not be permanently installed (see 8.6.1.6.1) except as permitted in the following: (a) landing Inspection Operation [see 2.7.6.5.2(h)] (b) hoistway access switch operation (see 2.12.7.3.3) (c) top-of-car Inspection Operation additional device [see 2.26.1.4.2(g)] (d) Inspection Operation with open door circuits (see 2.26.1.5) (e) operation in leveling or truck zone (see 2.26.1.6) (f) test enable operation (see 2.26.14	No comment	
2.26.9.3.1	**2.26.9.3.1** The occurrence of a single ground or the failure of any single magnetically operated switch, contactor, or relay, or any single device that limits the leveling or truck zone, or any single solid-state device not a part of a software system; or a failure of a software system in circuits not in conformance with 2.26.9.3.2(b),shall not **(a)** ... **(b)** permit the car to move beyond the leveling or truck zone if any hoistway-door or car door interlock is unlocked or if any hoistway door or car door or gate ~~electric contact~~ closed detection means is not in detecting the closed position (see 2.26.1.6) **(c)** ... **(d)** ... **(e)** render ineffective any hoistway-door or car door interlock, or car door or gate ~~electric contact~~ closed detection means, or hoistway door combination mechanical lock and ~~electric contact~~ closed detection means when either a hoistway access switch (see 2.12.7.3) or a "BYPASS" switch (see 2.26.1.5) is in the "OFF" position.		No comment	
2.26.9.5.1		**2.26.9.5.1** Two means shall be provided to remove power independently from the driving-machine motor. At least one shall conform to either (a) or (b). (a) An electromechanical contactor arranged to either (1) open each time the car stops or (2) open, at the latest, each time the car reverses direction, except for releveling; it shall be verified at each stop that there is no current flow exceeding normal leakage current through the other means (b) An E/E/PES with a SIL not less than the highest SIL value of the applicable function as shown in Table 2.26.4.3.2 for the electrical protective devices involved and shall be listed/certified to a SIL rating that is in accordance with the applicable requirements of IEC 61508-2 and IEC 61508-3. It shall be identifiable on wiring diagrams (see 8.6.1.6.3) with part identification, SIL, and certification identification information that shall be in accordance with the certifying organization's requirements. Assemblies containing SIL rated devices shall be labeled or tagged with the statement: "Assembly contains SIL rated devices. Refer to Maintenance Control Program and wiring diagrams prior to performing work."	No comment?	
2.26.9.6.1		**2.26.9.6.1** Two separate means shall be provided to independently inhibit the flow of alternating current through the solid-state devices that connect the DC power source to the AC driving motor. At least one of the means shall conform to either (a) or (b). (a) An electromechanical relay arranged to either (1) open each time the car stops or (2) open, at the latest, each time the car reverses direction, except for releveling; it shall be verified at each stop that there is no current flow exceeding normal leakage current through the other means (b) An E/E/PES with a SIL not less than the highest SIL value of the applicable function as shown in Table 2.26.4.3.2 for the electrical protective devices involved and shall be listed/certified to a SIL rating that is in accordance with the applicable requirements of IEC 61508-2 and IEC 61508-3. It shall be identifiable on wiring diagrams (see 8.6.1.6.3) with part identification, SIL, and certification identification information that shall be in accordance with the certifying organization's re- quirements. Assemblies containing SIL rated devices shall be labeled or tagged with the statement: "Assembly contains SIL rated devices. Refer to Maintenance Control Program and wiring diagrams prior to performing work."	No comment?	
2.26.11	**2.26.11 Car Platform to Hoistway Door Sills Vertical Distance** Where ANSI/ICC A117.1, ~~or~~ ADAAG, or ADA/ABAAG is not applicable, the vertical distance between the car platform sill and the hoistway door sill on passenger elevators shall be in accordance with the following: **(a)** ~~it~~ the vertical distance shall not exceed 13 mm (0.5 in.) on initial stop at a landing **(b)** the car shall re-level if the vertical distance exceeds 25 mm (1 in.) while loading or unloading	**2.26.11** Where ~~ANSI~~/ICC A117.1, ADAAG, or ADA/ABAAG is not applicable, the vertical distance between the car platform sill and the hoistway door sill on passenger elevators shall be in accordance with the following: (a) The vertical distance shall not exceed 13 mm (0.5 in.) on initial stop at a landing. (b) The car shall relevel if the vertical distance exceeds 25 mm (1 in.) while loading or unloading.	ICC A117.1 is applicable in Wisconsin however this elevator code is more specific and more restrictive than the A117.1 language which only states this: **407.4.4 Leveling.** Each car shall automatically stop and maintain position at floor landings within a tolerance of $1/2$ inch (13 mm) under rated loading to zero loading conditions.	
2.26.12.3	**2.26.12.3** Where Braille is provided it shall conform to the requirements in Table 2.26.12.1. **NOTE** (2.26.12): See also ANSI/ICC A117.1, ADAAG, ADA/ABAAG, and B44 Appendix E.	**2.26.12.3** Where Braille is provided, it shall conform to the requirements in Table 2.26.12.1. NOTE (2.26.12): See also ~~ANSI~~/ICC A117.1, ADAAG, ADA/ABAAG, and Nonmandatory Appendix E.	For reference to the correct accessibility code, see Wisconsin Commercial Building Code SPS 362.	
2.26.13		**Remote Interaction Operation**	No comment	Discuss at next meeting. DSPS to make recommendations.

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2.26.14		Test Enable Operation	No comment	Discuss at next meeting. DSPS to make recommendations.
2.27.1	**2.27.1 Car Emergency Signaling Devices**			
2.27.1.1	**2.27.1.1 Emergency Communications** The two-way communications shall conform to 2.27.1.1.1 through 2.27.1.1.6.			
2.27.1.1.1	**2.27.1.1.1** ~~A two-way~~ communications means between the car and a location staffed by authorized personnel who can take appropriate action, shall be provided		Consider changing "can" take appropriate action to "shall" take appropriate action.	**SPS 318.1702(10)** new **(a)(1)**, renumber current (a), (b) and (c) to (b), (c) and (d) accordingly. Substitute the following wording for ASME A17.1, 2.27.1.1.1: A communication means between the car and a location staffed by authorized personnel who will take appropriate action shall be provided.
2.27.1.1.2	**2.27.1.1.2** ... ~~(a) Two-way communications shall be directed to a location(s) staffed by authorized personnel who can take appropriate action.~~ ~~(b)~~ If the call is not acknowledged [2.27.1.1.3(c)] within 45 s, the call shall be automatically directed to an alternate on- or off-site location.		No change to 45 sec. time frame or automatic direction to alternate location. Consider reducing this time because people will give up before 45 seconds.	**SPS 318.1702(10)** new **(a)(2)**, renumber current (a), (b) and (c) to (b), (c) and (d) accordingly. Substitute the following wording for ASME A17.1, 2.27.1.1.2: If the call is not aknowledged [2.27.1.1.3(c)] within 30 s, the call shall automatically be directed to an alternate on- or off-site location staffed by personnel who will take appropriate action.
2.27.1.1.3 (b)	**2.27.1.1.3** The ~~two-way~~ communications means within the car shall comply with the following requirements: **(a)**... **(b)** A push button to actuate the ~~two-way~~ communications means shall be provided in or adjacent to a car operating panel. The push button shall be visible and permanently identified with the ~~"PHONE"~~ phone symbol (see 2.26.12.1). The identification shall be on or adjacent to the ~~"PHONE"~~ phone push button. ~~When the push button is actuated, the emergency two-way communications means shall initiate a call for help and establish two-way communications.~~ The communications means shall be initiated when the push button is actuated. **(c)** ~~A visual indication on~~ On the same panel as the ~~"PHONE"~~ phone push button, a message shall be displayed ~~shall be provided~~, that is activated by authorized personnel, to acknowledge that two-way communications link has been is established. The ~~visual indication~~ message shall be permitted to be extinguished where necessary to display a new message [see 2.27.1.1.3(d) and 2.27.1.1.3(e)] or when the ~~two-way~~ communications ~~link is~~ are terminated. **(d)** On the same panel as the phone push button, messages shall be displayed which permit authorized personnel to communicate with and obtain responses from a trapped passenger(s) including a passenger(s) who cannot verbally communicate or cannot hear. **(e)** On the same panel as the phone push button a message shall be displayed, that is activated by authorized personnel, to indicate when help is on the way. The message shall continue to be displayed until a new message is displayed [see 2.27.1.1.4(c)] or the communication is terminated.	**2.27.1.1.3** The communications means within the car shall comply with the following requirements: (a) In jurisdictions enforcing the NBCC, see Nonmandatory Appendix E.; in In jurisdictions not enforcing the NBCC, see ANSI/ ICC A117.1, ADAAG, or ADA/ABAAG. (b) ~~A push button to actuate the communications means shall be provided in or adjacent to a car operating panel.~~ On the panel that contains the "FIRE OPERATION" switch there shall be a phone push button and either a message display [see (c)] or a visual indicator [see (d)]. Where the message display is on a panel adjacent to the car operating panel containing the "FIRE OPERATION" switch, an additional phone push button shall be permitted on that panel. The push button(s) shall be visible and permanently identified with the phone symbol (see 2.26.12.1). The identification shall be on or adjacent to ~~the~~ each phone push button. ~~The communications means shall be initiated when the push button is actuated~~. Actuation of a phone push button shall initiate the communications means. (c) ~~On the same panel as the phone push button, a~~A means to display a message(s) shall be provided on the car operating panel that contains the "FIRE OPERATION" switch or an adjacent panel. A message shall be displayed that is activated by authorized personnel to acknowledge that communications are established. The message shall be permitted to be extinguished where necessary to display a new message [see (d1) and (e2)] or when the communications are terminated. (~~d~~1) On the same panel as the phone push button Visual messages shall be displayed that permit authorized personnel to communicate with and obtain responses from a trapped passenger(s), including a passenger(s) who cannot verbally communicate or hear. (~~e~~2) On the same panel as the phone push button, aA visual message shall be displayed that is activated by the authorized personnel to indicate when help is on the way. The message shall continue to be displayed until a new message is displayed [see 2.27.1.1.4(c)] or the communications are terminated. (d) A visual indicator, when provided, shall illuminate to acknowledge when communication is established and shall extinguish when communication is terminated. (~~f~~e) The communications means shall provide …	This language is helpful to work with the currently adopted IBC 3001.2 for elevator communication systems.	
2.27.1.1.3 (f)	~~(f)~~ **(g)** The ~~two-way~~ communications, once established, shall be disconnected only when authorized personnel ~~outside the car~~ terminate the call or a timed termination occurs. A timed termination by the ~~two-way~~ communications means in the elevator, with the ability to extend the call by authorized personnel, is permitted if voice notification is sent by the communications means to authorized personnel a minimum of 3 min after communication has been established. Upon notification, authorized personnel shall have the ability to extend the call; automatic disconnection shall be permitted if the means to extend are not enacted within 20 s of the voice notification. ~~(g)~~ (h) The ~~two-way~~ communications means shall not use a handset in the car. ~~(h)~~ (i) The ~~two-way~~ communications shall not be transmitted to an automated answering system. The call ~~for help~~ shall be answered by authorized personnel. ~~(i)~~ (j) Operating instructions shall be incorporated with or adjacent to the ~~"PHONE"~~ phone push button. (k) A means to display video to observe passengers at any location on the car floor, to authorized personnel for entrapment assessment shall be provided.	(~~f~~e) The communications means shall provide … (~~g~~f) The communications, once established … (~~h~~g) The communications means shall not use … (~~i~~h) The communications means shall not be … (~~j~~i) Additional operation instructions shall … (~~k~~j) A means to display video … (l) The in-car messages display [see 2.27.1.1.3(c), (d), and (e)] characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms. The uppercase letter "I" shall be used to determine the allowable height of all characters of the font. The uppercase letter "I" of the font shall be 4.8 mm (0.1875 in.) minimum in height. Characters shall contrast with their background with either light characters on a dark background, or dark characters on a light background.	This is the first requirement for a camera in an elevator	
2.27.1.1.4	**2.27.1.1.4** Where the elevator rise is 18 m (60 ft) or more, a ~~two-way voice~~ communications means within the building accessible to emergency personnel shall be provided and comply with the following requirements:		No comment	

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2.27.1.1.4(a)...	**(a)** The means shall enable emergency personnel within the building to establish ~~two-way voice~~ communications to each car individually. ~~Two-way voice~~ The communications shall be established without any intentional delay and shall not require intervention by a person within the car. The means shall override voice communications to outside of the building. **(b)** ~~Two-way voice~~ The communications, once established, shall be disconnected only when emergency personnel ~~outside the car~~ terminate~~s~~ the call or a timed termination occurs. A timed termination by the ~~two-way~~ communications means in the elevator, with the ability to extend the call by ~~authorized~~ emergency personnel, is permitted if voice notification is sent by the communications means to emergency personnel a minimum of 3 min after communication has been established. Upon notification, ~~authorized~~ emergency personnel shall have the ability to extend the call; automatic disconnection shall be permitted if the means to extend are not enacted within 20 s of the voice notification. **(c)** Once the ~~two-way voice~~ communication~~s~~ have ~~has~~ been established, ~~the visual indication [see 2.27.1.1.3(c)]~~ a message shall be displayed on the same panel as the phone push button, that is activated by emergency personnel, to indicate that help is on site ~~within the car shall illuminate~~. The ~~visual indication~~ message shall be permitted to be extinguished where necessary to display a new message [see 2.27.1.1.4(e)] or when the ~~two-way~~ communications are ~~is~~ terminated.		No comment	
2.27.1.1.4(d)	**(d)** Operating instructions shall be incorporated with or adjacent to the ~~two-way~~ voice communications outside the car. Instructions shall conform to 2.27.7.3. **(e)** On the same panel as the phone push button, messages shall be displayed which permit emergency personnel to communicate with and obtain responses from a trapped passenger including a passenger who cannot verbally communicate or cannot hear. **(f)** A means to display video to observe passengers at any location on the car floor, to emergency personnel for entrapment assessment shall be provided.		No comment	
2.27.1.1.4(g)		**(g)** when provided, the communication means within the building accessible to emergency personnel shall be located in one of the following locations; (1)in jurisdictions not enforcing the NBCC, the Fire Command Center (FCC) (2)in jurisdictions enforcing the NBCC, the Central Alarm and Control Facility (CACF) (3)in buildings without an FCC or CACF, on the designated level in a location approved by the fire authority. The means shall be key operated or behind a locked cover. The key shall be Group 3 Security (see Section 8.1).	This applies to elevators with rise of 60' or more without a FCC (so less than 75'). This will require a new communications phone, screen and keyboard	Revisit this.
2.27.1.1.5	2.27.1.1.5 If the ~~two-way~~ communications means is ~~normally~~ connected to the normal building power ~~supply~~, it shall automatically transfer to ~~a source of standby or emergency~~ an auxiliary power supply as required by the applicable building code or, where applicable, Standard for Health Care Facilities (ANSI/NFPA-99), after the normal building power ~~supply~~ fails. This power source shall be capable of providing for ~~illumination of the visual indication [see 2.27.1.1.3(c)] within the car, and~~ the means of two-way communications [see 2.27.1.1.3 and 2.27.1..1.4] for at least 4 h; and the audible signaling device (see 2.27.1.2) for at least 1 h.		This auxiliary power supply must be larger than previously required to provide for the vide and camera systems	
2.27.1.1.6	**2.27.1.1.6** **(a)** ~~The two-way~~ voice communications means within the car shall include a means to verify operability of the telephone line, where **(1)** verification of the telephone line operability shall be automatically performed **(2)** verification may be continuous or periodic **(3)** periodic verification shall be at least on a daily basis **(4)** verification shall not require activation of the ~~two-way~~ communications link(s) If means other than a telephone line (e.g., VOIP, network, intercom, etc.) is used for the ~~two-way~~ communications, similar verification of this equivalent means shall be performed. **(b)** ...		No comment	
2.27.1.1.6(b)(3)	**2.27.1.1.6** **(b)** If the verification means in 2.27.1.1.6(a) determines that the telephone line or equivalent means is not functional, an audible and illuminated visual signal shall be activated. A minimum of one visual and one audible signal shall be provided for each group of elevators controlled by a ~~"FIRE RECALL"~~ fire recall switch. **(1)** The visual signal shall **(-a)** be located at the designated landing in the vicinity of the ~~"FIRE RECALL"~~ fire recall switch and visible to elevator user(s) **(2)** The audible signal shall **(-a)** be 10 dBA minimum above ambient, but shall not exceed 80 dBA measured at the designated landing ~~"FIRE RECALL"~~ fire recall switch		No comment	
2.27.2			**SPS 318.1702 (10) a.** No changes	
2.27.2.1.1		**2.27.2.1.1** Where elevators are provided with Occupant Evacuation Operation they shall be provided with emergency/standby power systems of Type, Class and Level required by building code.	No comment	
2.27.2.2.1		**2.27.2.2.1** The failure and subsequent restoration of electrical power (normal or standby) shall not cause any elevator to be removed from Occupant Evacuation Operation. Upon restoration of power an elevator that is stopped away from a landing may proceed as necessary to restore car position before resuming Occupant Evacuation Operation.	No comment	

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2.27.2.4.1	**2.27.2.4.1** A ~~selector switch(es)~~ manually-operated means marked "ELEVATOR EMERGENCY POWER" in red lettering a minimum of 5 mm (0.25 in.) in height, ~~that is key-operated or under a locked cover (see 2.27.8)~~, shall be provided to permit the selection of the elevator(s) to operate on the emergency or standby power system. The ~~key~~ selection means shall be operated or secured by a Group 3 Security device (see Section 8.1). Where a key is used, it shall be the type specified in 2.27.8.		No comment	
2.27.2.4.2	**2.27.2.4.2** The ~~selector switch(es) positions~~ selection means shall be marked to correspond with the elevator identification number (see Section 2.29) and ~~a position marked~~ shall indicate "AUTO." when no car is manually selected.		No comment	
2.27.2.4.4		**2.27.2.4.4** An automatic means shall be provided to select each elevator one or more at a time. The selection shall be transferred from one elevator to another until all the elevators have been selected. After all elevators have been selected, the process shall repeat for any cars that failed to move, to give them a second opportunity. The operation, when selected, shall be as follows: (a) An elevator that is not on designated attendant operation, hoistway access operation, inspection operation, Firefighters' Phase I Emergency Recall Operation or Firefighters' Phase II In-Car Emergency Operation shall return to the designated level where the power operated doors at the landing where the illuminated signal (see 2.27.2.3) is located shall open and remain open. Where more than one entrance is provided at the designated level, the other doors are permitted to open. Once the selected car has returned to the designated level or fails to move within 30 s, the selection shall be automatically transferred to another elevator. (b) An elevator on designated attendant operation, hoistway access operation, inspection operation, or Firefighters' Phase II In-Car Emergency Operation shall operate in accordance with those requirements and shall remain selected until the car is stopped for a period of not less than 2 min and not more than 3 min, before the selection shall be automatically transferred to another elevator. For cars on Firefighters' Phase II In-Car Emergency Operation, the in-car visual signals [see 2.27.3.1.6(h) and 2.27.3.3.8] shall activate only while the car is selected. (c) An elevator that is on Firefighters' Phase I Emergency Recall Operation shall return to the recall level in accordance with 2.27.3.1 or 2.27.3.2. Once recall is complete, or the selected car fails to move within 30 s, the selection shall be automatically transferred to another elevator. (d) The number of elevators required by the building code to be available for occupant evacuation that are on Occupant Evacuation Operation shall continue to operate in accordance with 2.27.11. Additional occupant evacuation elevators as defined by the building code, but not required to be available for occupant evacuation by the building code that are on Occupant Evacuation Operation shall return to the designated level in accordance with 2.27.2.4.4(a). NOTE: (2.27.2.4.4(a)) See requirement 2.27.12.1(a) for modification to requirements of 2.27.2.4.4 (a) during Flood Detection Operation.	No comment	
2.27.2.4.5	**2.27.2.4.5** After all cars have been recalled, moved to a floor, or failed to move after a second opportunity, one or more of the elevators, identified by the manual selection ~~switch(es)~~ means (see 2.27.2.4.1), shall be selected to remain in operation. If no elevator(s) has been manually selected ~~switch(es)~~ selection means in "AUTO" position], it shall be permissible to automatically select the elevator(s) to remain in operation. Preference shall be given to cars on Hospital Service followed by cars on Firefighters' Phase II Emergency In-Car Operation. The manual selection ~~switch(es)~~ means shall not override the automatic power selection until **(a)** the automatic return sequence is complete (see 2.27.2.4.4); or **(b)** a ~~"FIRE RECALL"~~ fire recall switch is in the "ON" position (see 2.27.3.1) Operation of the manual selection switch(es) shall not cause a car to be deselected until the elevator is stopped.	**2.27.2.4.5** Except for elevators required by the building code to be available for occupant evacuation, After once all other cars have been recalled, moved to a floor, or failed to move after a second opportunity, one or more of the elevators, identified by the manual selection switch(es) (see 2.27.2.4.1), shall be selected to remain in operation. If no elevator(s) has been manually selected [switch(es) in "AUTO" position], it shall be permissible to automatically select the elevator(s) to remain in operation. Preference shall be given to cars on Hospital Service followed by cars on Firefighters' Phase II Emergency In-Car Operation followed by additional occupant evacuation elevators as defined by the building code, but not required to be available for occupant evacuation by the building code that are on Occupant Evacuation Operation. The manual selection switch(es) shall not override the automatic power selection until (a) the automatic return sequence is complete (see 2.27.2.4.4); or (b) a "FIRE RECALL" switch is in the "ON" position (see 2.27.3.1) Operation of the manual selection switch(es) shall not cause a car to be deselected until the elevator is stopped.	No comment	
2.27.2.4.6	**2.27.2.4.6** A visual means, located adjacent to or integrated with the manual ~~selector switches~~ selection means, shall be provided to indicate which elevator(s) is currently selected.		No comment	
2.27.3		**2.27.3 Firefighters' Emergency Operation: Automatic Elevators** Firefighters' Emergency Operation shall apply to all automatic elevators except where the hoistway or a portion thereof is not required to be fire-resistive construction (see 2.1.1.1), the rise does not exceed 2 000 mm (80 in.), and the hoistway does not penetrate a floor. ~~NOTE (2.27.3):~~ When the structure (building, etc.) is located in a flood hazard area, the alternate ~~and designated~~ level~~s~~ (see 2.27.12 & 8.12.1) should shall be above the ~~base~~ flood elevation. Where there is no available landing above the flood elevation, the highest available landing shall be used.	No comment	
2.27.3.1.1 (c)		**(c)** located in the lobby, installed a minimum of 915 mm (36 in.) and a maximum of 1680 mm (66 in.) above the floor as measured to the center line of the switch, within sight of the elevator or all elevators in that group and shall be readily accessible.	No comment. New height for FEO Phase 1 key switch	

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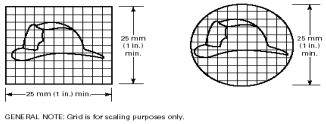
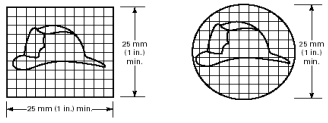
2.27.3.1.2	**2.27.3.1.2** An additional key-operated ~~"FIRE RECALL"~~ fire recall switch, with two positions that will not change position without a deliberate action by the user, marked "OFF" and "ON" (in that order), shall be permitted. ~~only at the fire command center.~~ It shall be labeled "FIRE RECALL" and identify the elevator(s) it controls. ~~**NOTE** (2.27.3.1.2): In jurisdictions enforcing NBCC, the Fire Command Center (FCC) is known as the Central Alarm and Control Facility (CACF).~~ **NOTE** (2.27.3.1.2): The building code or fire authority may require this switch at a specific location.		No comment	
2.27.3.1.4	**2.27.3.1.4** Only the ~~"FIRE RECALL"~~ fire recall switch(es) or fire alarm initiating device located at floors that are served by the elevator, or in the hoistway, or in an elevator machine room, or a control space, or a control room (see 2.27.3.2) shall initiate Phase I Emergency Recall Operation.		No comment	
2.27.3.1.5	**2.27.3.1.5** All ~~"FIRE RECALL"~~fire recall switches shall be provided with an illuminated visual signal to indicate when Phase I Emergency Recall Operation is in effect.		No comment	
2.27.3.1.6	**2.27.3.1.6** When a ~~"FIRE RECALL"~~ fire recall switch is in the "ON" position, all cars controlled by the switch shall operate as follows: **(a)** A car traveling towards the designated level shall continue nonstop to the designated level and power operated doors shall open and remain open. On cars with more than one entrance, if the doors for another entrance can be opened at the designated level, only the doors serving the lobby where the ~~"FIRE RECALL"~~ fire recall switch is located shall automatically open and remain open. Once at the designated level, all in-car door open button(s) shall be operative. Once the doors at an entrance other than the entrance serving the lobby where the ~~"FIRE RECALL"~~ fire recall switch is located, are opened by means of an in-car door open button, they shall initiate reclosing within 15 s of reaching the normal open position. **(j)** Where an additional ~~"FIRE RECALL"~~ fire recall switch is provided, both ~~"FIRE RECALL"~~ fire recall switches shall be in the "ON" position to recall the elevator to the designated level if the elevator was recalled to the alternate level (see 2.27.3.2.4). **(k)** To remove the elevator(s) from Phase I Emergency Recall Operation, the ~~"FIRE RECALL"~~ fire recall switch shall be rotated first to the "RESET," and then to the "OFF" position, provided that **(1)** the additional two-position ~~"FIRE RECALL"~~ fire recall switch, where provided, is in the "OFF" position	**2.27.3.1.6** When Phase I Emergency Recall Operation is initiated by placing a fire recall switch ~~is~~ in the "ON" position, all cars controlled by the switch shall operate as follows:	No comment	
2.27.3.1.6(i)			No comment	
2.27.3.1.6(h)			No comment	
2.27.3.2.1		**2.27.3.2.1** In jurisdictions not enforcing the NBCC, smoke detectors or other automatic fire detectors in environments not suitable for smoke detectors (fire alarm initiating devices) used to initiate Phase I Emergency Recall Operation shall be installed in conformance with the requirements of NFPA 72, and shall be located (a) at each elevator lobby served by the elevator (b) in the associated elevator machine room, machinery space containing a motor controller or driving machine, control space, or control room (c) in the elevator hoistway, when sprinklers are located in those hoistways more than 600 mm (24 in.) above the pit floor or when required by other applicable codes or standards to actuate elevator hoistway smoke relief equipment NOTES: (1) 2.27.3.2.2: Smoke and heat detectors (fire alarm initiating devices) are referred to as fire detectors in the NBCC. Pull stations are not deemed to be fire detectors. (2) 2.27.3.2.2(b): A machinery space containing a motor controller or driving machine located in the elevator hoistway, or a control space located in the elevator hoistway requires a fire alarm initiating device regardless of the presence of sprinklers. ***(3) 2.27.3.2.2(c): A fire alarm initiating device is not required in the pit regardless of the presence of sprinklers.***	These Notes now agree with Wisconsin codes **SPS 318.1702 (10) (b) 1g.** No changes	

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment	Council Comment
2.27.3.2.2		**2.27.3.2.2** In jurisdictions enforcing the NBCC, smoke detectors, or heat detectors in environments not suitable for smoke detectors (fire alarm initiating devices), used to initiate Phase I Emergency Recall Operation shall be installed in conformance with the requirements of the NBCC and shall be located (a) at each elevator lobby served by the elevator (b) in the associated elevator machine room, a machinery space containing a motor controller or driving machine, a control space, or a control room (c) in the elevator hoistway, when sprinklers are located in those hoistways, or when required by other applicable codes or standards to actuate elevator hoistway smoke relief equipment NOTES: (1) 2.27.3.2.2: Smoke and heat detectors (fire alarm initiating devices) are referred to as "fire detectors" in the NBCC. Pull stations are not deemed to be fire detectors. (2) 2.27.3.2.2(b): A machinery space containing a motor controller or driving machine located in the elevator hoistway or a control space located in the elevator hoistway requires a fire alarm initiating device regardless of the presence of sprinklers.	Not applicable because Wis. does not enforce the National Building Code of Canada	
2.27.3.2.3	**2.27.3.2.3** Phase I Emergency Recall Operation to the designated level shall conform to the following: **(a)** The activation of a fire alarm initiating device specified in 2.27.3.2.1(a) or 2.27.3.2.2(a) at any floor, other than at the designated level, shall cause all elevators that serve that ~~floor~~ lobby, and any associated elevator of a group automatic operation, to be returned nonstop to the designated level. **(b)** The activation …		**SPS 318.1702 (10) (b) 1r. to be removed. Now agrees with SPS 318**	
2.27.3.2.4	**2.27.3.2.4** When Phase I Emergency Recall Operation to the designated level is not in effect, Phase I Emergency Recall Operation to an alternate level (see Section 1.3), shall conform to the following: **(a)** the activation of a fire alarm initiating device specified in 2.27.3.2.1(a) or 2.27.3.2.2(a) that is located at the designated level, shall cause all elevators serving that level to be recalled to an alternate level, ~~unless Phase I Emergency Recall Operation is in effect~~ **(b)** the requirements of 2.27.3.1.6(c), (e) through (h), ~~(f)~~, (j), ~~(m), and~~ through (n) **(c)** the requirements of 2.27.3.1.6(a), (b), (d), ~~l, (g), (h)~~, and (i), ~~(k), and (l)~~, except that all references to the "designated level" shall be replaced with "alternate level"		**SPS 318.1702 (10) (b) 2.** No changes	
2.27.3.2.5	**2.27.3.2.5** The recall level shall be determined by the first activated fire alarm initiating device for that group (see 2.27.3.2.1 or 2.27.3.2.2). If the car(s) is recalled to the designated level by the ~~"FIRE RECALL"~~ fire recall switch(es) [see also 2.27.3.1.6(j)], the recall level shall remain the designated level.		No comment	
2.27.3.2.6		**2.27.3.2.6** When Phase I Emergency Recall Operation is initiated by a fire alarm initiating device for any of the following locations, as required by 2.27.3.2.3 or 2.27.3.2.4, the visual signal [see 2.27.3.1.6(h) and Figure 2.27.3.1.6] shall illuminate intermittently only in a car(s) with equipment in that location: (a) machine room (b) machinery space containing a motor controller or driving machine (c) control room (d) control space (e) hoistway If the fire alarm system that includes the FAIDs in (a) through (e) is reset, the visual signal [see 2.27.3.1.6(h)] shall not change from illuminating intermittently to illuminating continuously.	No comment	
2.27.3.3.1(i)		**2.27.3.3.1(i)** When the "FIRE OPERATION" switch is in the "ON" position, the elevator shall be on Phase II Emergency In-Car Operation, for use by emergency personnel only, and the elevator shall operate as follows: (a) The elevator … … (i) Floor selection means shall be provided in the car to permit travel to all landings served by the car, and shall be operative at all times, except as in 2.27.3.3.2, 2.27.13.1(c) and ~~8.12.1~~ 2.27.13.1(d). Means to prevent…	No comment, 2.27.13 refers to flood detection operation	
2.27.3.3.2		**2.27.3.3.2** For elevators with power-operated doors, when the car is at a landing, with the doors open, and the "FIRE OPERATION" switch is in the "HOLD" position, the car shall remain at the landing with the doors open. The door close buttons shall be inoperative, and car calls shall not be registered. For elevators with manual doors, when the car is at a landing and the "FIRE OPERATION" switch is in the "HOLD" position, the car shall remain at the landing and car calls shall not be registered. If normal building power and emergency ~~power supply~~ or standby power ~~supply~~ are not available, the elevator is equipped with an ~~alternate source of power~~ auxiliary power supply, and the "FIRE OPERATION" switch in the car is in the "HOLD" position, the visual signal [see 2.27.3.1.6(h)] shall illuminate intermittently.	No comment	

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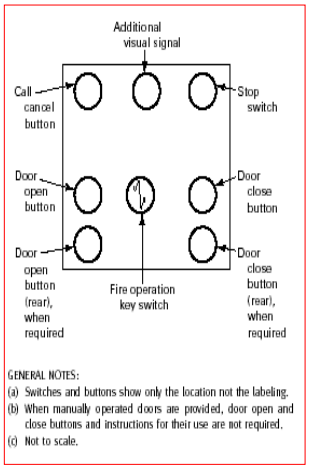
2.27.3.3.4		**2.27.3.3.4** When the doors are in the closed position and the "FIRE OPERATION" switch is placed in the "OFF" position, the car shall return to the recall level in confor- mance with 2.27.3.1.6(a) through 2.27.3.1.6(n) and 2.27.3.2.5. If ~~normal power supply, emergency power supply, and standby power supply~~ normal building power and emergency or standby power are not available, the elevator is equipped with an ~~alternate source of power~~ auxiliary power supply that can move the car to a floor, and the "FIRE OPERATION" switch in the car is in the "OFF" position, the following requirements shall apply: (a) The visual signal [see 2.27.3.1.6(h)] shall illuminate intermittently. (b) The requirements of 2.27.3.1.6(n)(2) through 2.27.3.1.6(n)(5) shall apply.	No comment	
2.27.3.3.5	**2.27.3.3.5** Elevators shall be removed from Phase II Emergency In-Car Operation only when the "FIRE OPERATION" switch is in the "OFF" position, the car is at the designated level, and the doors are in the normal open position.	**2.27.3.3.5** Elevators shall be removed from Phase II Emergency In-Car Operation only when the "FIRE OPERATION" switch is in the "OFF" position, the car is at the ~~designated~~ recall level, and the doors are in the normal open position.	No comment, except much better	
2.27.3.3.7	**2.27.3.3.7** The "FIRE OPERATION" switch (2.27.3.3), the "CALL CANCEL" button [2.27.3.3.1(h)], the "STOP" switch [2.27.3.3.1(m)], the door open button(s), the door close button(s), the additional visual signal (2.27.3.3.8), and the operating instructions shown in Fig. 2.27.7.2 shall be grouped together ~~in~~ on the firefighters' operation panel behind a locked cover. The floor selection means [see 2.27.3.3.1(i)] shall be permitted to be located behind the locked cover. When required as part of the fire department communication system, a phone jack shall be permitted to be installed in the firefighters' operation panel below the level of the "FIRE OPERATION" switch. No other equipment shall be permitted behind the locked cover. ~~in the firefighters' operation panel.~~		No comment	
2.27.3.3.7(b)	**2.27.3.3.7** ….. **(b)** The panel and the floor selection means shall be located on the wall of the car containing the door that opens to the lobby where the ~~"FIRE RECALL"~~ fire recall switch is located, or immediately adjacent to that wall on a side wall.		No comment, 2.27.13 refers to flood detection operation	
2.27.3.3.9		**2.27.3.3.9** Requirement 2.26.5(b)(2) shall not apply when the elevator is on Phase II Emergency In-Car Operation.	No comment	
2.27.3.4		**2.27.3.4 Interruption of Power.** The failure and subsequent restoration of electrical power (normal, emergency, or standby) shall not cause any elevator to be removed from Phase I Emergency Operation or Phase II Emergency In-Car Operation. … (b) Elevators on Phase II Emergency In-Car Operation with the key in the "OFF" position shall be permitted to move only to the next floor in the direction of the recall level to reestablish absolute car position prior to conforming to 2.27.3.3.3 and 2.27.3.3.4. If the key is moved to the "ON" or "HOLD" position before the doors are fully closed, (c) or (d) shall apply, and automatic power-operated doors shall open if in a leveling zone. (c) Elevators on Phase II Emergency In-Car Operation with the key in the "HOLD" position shall not move, except for leveling within a leveling zone. If the car is in an unlocking zone, aAutomatic power-operated doors shall open. ~~if the doors are not fully closed and the car is in a leveling zone.~~ The elevator shall then conform to 2.27.3.3.2. (d) Elevators on Phase II Emergency In-Car Operation with the key in the "ON" position shall not move, except for leveling within a leveling zone, until a car call is entered. Automatic power-operated doors shall not move under power until a door open or door close button is pressed, after which they shall conform to 2.27.3.3.1(d) and 2.27.3.3.1(e). After a car call is entered, the car shall be permitted to move only to the next floor in the direction of the recall level to reestablish absolute car position prior to answering car calls.	No comment	

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment	Council Comment
2.27.3.3.7	 GENERAL NOTES: (a) Switches and buttons show only the location not the labeling. (b) When manually operated doors are provided, door open and close buttons and instructions for their use are not required. (c) Not to scale.		No comment	
2.27.3.5.1	**2.27.3.5.1** The ~~"FIRE RECALL"~~ fire recall switch (2.27.3.1) shall be located at the designated level served by the upper compartment.		No comment	
2.27.4.1	**2.27.4.1 Phase I Emergency Recall Operation.** A three-position key-operated switch shall be provided at the designated level for each single elevator or for each group of elevators. The three-position switch shall be labeled "FIRE RECALL" and its positions marked "RESET," "OFF," and "ON" (in that order), with the "OFF" position as the center position. The "FIRE RECALL" letters shall be a minimum of 5 mm (0.25 in.) high in red or a color contrasting with a red background. The three-position switch shall be located in the lobby within sight of the elevator or all elevators in that group and shall be readily accessible. An additional key-operated ~~"FIRE RECALL"~~ fire recall switch that will not change position without a deliberate action by the user, marked with two positions, "OFF" and "ON" (in that order), shall be permitted ~~only at the fire command center.~~ It shall be labeled "FIRE RECALL" and idenify the elevators(s) it controls. . Only the ~~"FIRE RECALL"~~ fire recall switch(es) or fire alarm initiating devices located at floors that are served by the elevator, in the hoistway, or in an elevator machine room, a control space, or a control room (see 2.27.3.2) shall initiate Phase I Emergency Recall Operation.		No comment	
2.27.4.1	**2.27.4.1 Phase I Emergency Recall Operation.** A three-position key-operated switch shall be provided at the designated level for each single elevator or for each group of elevators. The three-position switch shall be labeled "FIRE RECALL" and its positions marked "RESET," "OFF," and "ON" (in that order), with the "OFF" position as the center position. The "FIRE RECALL" letters shall be a minimum 5 mm (0.25 in.) high in red or a color contrasting with a red background. The three-position switch shall be located in the lobby within sight of the elevator or all elevators in that group and shall be readily accessible. An additional key-operated ~~"FIRE RECALL"~~ fire recall switch with two positions, that will not change position without a deliberate action by the user, marked "OFF" and "ON" (in that order), shall be permitted only at the fire command center. It shall be labeled "FIRE RECALL" and shall identify the elevator(s) it controls. The switch(es) shall be rotated clockwise to go from the "RESET" position (designated level switch only) to the "OFF" position to the "ON" position. All keys shall be removable only in the "OFF" and "ON" positions. Only the ~~"FIRE RECALL"~~ fire recall switch(es) or fire alarm initiating devices located at floors that are served by the elevator or in the hoistway, an elevator machine room, a control space, or a control room (see 2.27.3.2) shall initiate Phase I Emergency Recall Operation. All ~~"FIRE RECALL"~~ fire recall switches shall be provided with an illuminated visual signal to indicate when Phase I Emergency Recall Operation is in effect. … When a ~~"FIRE RECALL"~~ fire recall switch is in the "ON" position, a visual and audible signal shall be provided to alert the attendant to return nonstop to the designated or alternate level. … Where an additional two-position ~~"FIRE RECALL"~~ fire recall switch is provided, both ~~"FIRE RECALL"~~ fire recall switches must be in the "ON" position to recall the elevator to the designated level if the elevator was recalled to the alternate level. Where an additional two-position ~~"FIRE RECALL"~~ fire recall switch is provided, it shall not affect the visual signal if the designated level fire alarm initiating device (see 2.27.3.2.4) has been activated. To extinguish … NOTE (2.27.4.1): The building code or fire authority may require this switch at a specific location.		No comment	

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2.27.4.2	**2.27.4.2 Phase I Emergency Recall Operation by Fire Alarm Initiating Devices** **(c)** Phase I Emergency Recall Operation, when initiated by a Phase I Emergency Recall Operation fire alarm initiating device, shall be maintained until canceled by moving the ~~"FIRE RECALL"~~ fire recall switch to the "RESET," then "OFF" position	**2.27.4.2 Phase I Emergency Recall Operation by Fire Alarm Initiating Devices** (a) Fire alarm initiating devices shall be installed, in the locations listed in (1) through (3), in compliance with the requirements in NFPA 72 or the NBCC, whichever is applicable (see Part 9), as follows: (1) at each elevator lobby served by the elevator (2) in the associated elevator machine room, machinery space containing a motor controller or driving machine, control space, or control room (3) in the elevator hoistway, when sprinklers are located in those hoistways … (d) When a fire alarm initiating device in a location specified by (a)(2) or (a)(3) initiates Phase I Emergency Recall Operation as required by 2.27.3.2.3 or 2.27.3.2.4, the visual signal [see 2.27.3.1.6(h) and Figure 2.27.3.1.6] shall illuminate intermittently only in a car(s) with equipment in that location. If the fire alarm system that includes the FAIDs in (a)(2) or (a)(3) is reset, the visual signal [see 2.27.3.1.6(h)] shall not change from illuminating intermittently to illuminating continuously.	No comment	
2.27.5.3	**2.27.5.3** When an elevator that is provided with Firefighters' Emergency Operation or Occupant Evacuation Operation is on hospital service, a visual signal as shown in Fig. 2.27.3.1.6(h) shall illuminate and a continuous audible signal, audible within the car, shall sound when the ~~"FIRE RECALL"~~ fire recall switch(es) (see 2.27.3.1 and 2.27.11.1.2) is in the "ON" position, or when a fire alarm initiating device (see 2.27.3.2) is activated to alert the operator of an emergency. A means located in the car shall be permitted for manually silencing the audible signal, after the signal has been active for at least 5 s. The signal shall be automatically reactivated when the doors open.		No comment	
2.27.6	**2.27.6 Firefighters' Emergency Operation, Occupant Evacuation Operation: Inspection Operation** When an elevator that is provided with Firefighters' Emergency Operation or Occupant Evacuation Operation is on inspection operation (see 2.26.1.4 and 2.26.1.5) or when the hoistway access switch(es) has been enabled (see 2.12.7.3.2), a continuous audible signal, audible at the location where the inspection operation is activated, shall sound when the ~~"FIRE RECALL"~~ fire recall switch(es) (see 2.27.3.1 and 2.27.11.1.2) is in the "ON" position or when the fire alarm initiating device (see 2.27.3.2 and 2.27.11.5) is activated to alert the operator of an emergency. The car shall remain under the control of the operator until removed from inspection operation or hoistway access operation. Inspection operation or hoistway access operation shall take precedence over Phase I Emergency Recall Operation, Phase II Emergency In-Car Operation, and Occupant Evacuation Operation	**2.27.6 Firefighters' Emergency Operation or Occupant Evacuation Operation: Inspection Operation** When an elevator that is provided with Firefighters' Emergency Operation or Occupant Evacuation Operation is on inspection operation (see 2.26.1.4 and 2.26.1.5) or when the hoistway access switch(es) has been enabled (see 2.12.7.3.2), an ~~continuous~~ audible signal, audible at the location where the inspection operation is activated, shall sound when the fire recall switch(es) (see 2.27.3.1 and 2.27.11.1.2) is in the "ON" position or when the fire alarm initiating device (see 2.27.3.2 and 2.27.11.5) is activated to alert the operator of an emergency. When the flood detection means (see 2.2.9), is actuated, the audible signal shall be activated for a minimum of 30 s. The audible signal shall be active when on Inspection Operation or Hoistway Access Operation (see 2.27.12.1(e)). The car shall remain under the control of the operator until it is removed from inspection operation or hoistway access operation. Inspection operation or hoistway access operation shall take precedence over Phase I Emergency Recall Operation, Phase II Emergency In-Car Operation, ~~and~~ Occupant Evacuation Operation, and Flood Detection Operation.	No comment	
2.27.7.1	**2.27.7.1** Instructions for operation of elevators under Phase I Emergency Recall Operation shall only be incorporated with or adjacent to the ~~"FIRE RECALL"~~ fire recall switch required by 2.27.3.1.1 at the designated level. The instructions shall include only the wording shown in Fig. 2.27.7.1.		No comment	
2.27.7.4	~~**2.27.7.4** In jurisdictions that enforce the NBCC, a symbol showing a red firefighters' hat on a contrasting background, as shown in Fig. 2.27.3.1.6(h) (figure not to scale), shall be used exclusively to identify elevators that comply with 2.27.3 and additional NBCC requirements.~~ ~~This identification shall be located on the elevator entrance frame or adjacent to it at each emergency recall level. The identification on the entrance frame, or adja-cent to it, shall be a minimum of 50 mm (2 in.) in height.~~		N/A	
2.27.8			**SPS 318.1702 (10) (b) 3. a., b. and c.** No changes	

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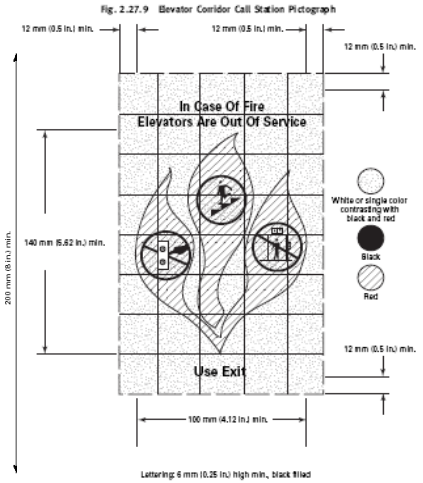
2.27.9	Fig. 2.27.9 Elevator Corridor Call Station Pictograph  		**SPS 318.1702 (10) (b) 4.** No changes Eliminate 2.27.9. Instead, leave this sign to the Building Code official and IBC 3002.3 instead of nearly duplicating requirements for this similar sign in the Elevator code.	
2.27.9			**SPS 318.1702 (10) (c) 1.** No changes	
2.27.9			**SPS 318.1702 (10) (c) 2.** Remove this - the code council has recommended eliminating the allowance for residential elevators to be without a telephone	
2.27.10	**2.27.10 ~~Fire Service Access Elevators~~ Elevator(s) for Use by Firefighters**	**2.27.10 Elevator(s) for Use by Firefighters** Freight elevators and hydraulic elevators shall not be designated as Fire Service Access Elevators (see 2.27.10.1) or Firefighters' Elevators (see 2.27.10.2). NOTE (2.27.10): Requirements for automatic sprinklers are addressed in the building code and NFPA 13, which may require the installation of sprinklers in specific locations such as in machine rooms, elevator machinery spaces, control rooms, control spaces and elevator hoistways of elevators.	No comment	
2.27.10.1	2.27.10.1 **Fire Service Access Elevators** In jurisdictions not enforcing the NBCC, Fire Service Access Elevators shall be provided when required by the building code	**2.27.10.1 Fire Service Access Elevators.** In jurisdictions not enforcing the NBCC, fire service access elevators shall be provided when required by the building code. and shall: (a) provide ~~C~~control signal(s) ~~shall be provided~~ to the building system for lighting the hoistway when Firefighters' Emergency Operation is active. (b)be identified as fire service access elevator(s) in accordance with the requirements of the building code.	No comment	
2.27.10.2	**2.27.10.2 ~~2.27.7.4~~ Firefighters' Elevator** In jurisdictions ~~that enforce~~ enforcing the NBCC, a symbol showing a red firefighters' hat on a contrasting background, as shown in Fig. 2.27.3.1.6(h) (figure not to scale), shall be used exclusively to identify elevators that comply with both 2.27.3 and additional NBCC requirements. This identification shall be located on the elevator entrance frame or adjacent to it at each emergency recall level. The identification on the entrance frame, or adjacent to it, shall be a minimum of 50 mm (2 in.) in height.		N/A	
2.27.11	**2.27.11 Occupant Evacuation Operation** Where elevators are designated as occupant evacuation elevators by the building code ~~provided for occupant evacuation~~, Occupant Evacuation Operation (OEO) shall be provided and ~~to function prior to Firefighter's Emergency Operation and~~ shall conform to 2.27.11.1 through 2.27.11.6. See also Nonmandatory Appendix V. **NOTE** (2.27.11): Where destination-oriented control for operation is used, "car destination demand" should be substituted for "car call" and "landing call demand" should be substituted for "landing call".		No comment	
2.27.11.1	**2.27.11.1 Phase I Emergency Recall Operation with OEO.** When OEO is provided, the ~~The~~ requirements of 2.27.3.1 shall be modified as follows.		No comment	
2.27.11.1.1	**2.27.11.1.1** ~~The three-position switch in the lobby (2.27.3.1.1) and two-position switch in the fire command center (2.27.3.1.2) shall be modified and labeled "GROUP FIRE RECALL" and indicate the elevator group that they control.~~ For groups of two or more elevators only, the label for the three-position switch in the lobby (2.27.3.1.1) and the two-position switch (2.27.3.1.2) shall be modified to "GROUP FIRE RECALL".		No comment	

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2.27.11.1.2	**2.27.11.1.2** ~~An additional three-position key operated individual "CAR FIRE RECALL" switch per elevator, that will not change position without a deliberate action by the user, shall be located in the lobby at the elevator discharge level adjacent to the elevator it controls. Each switch shall be labeled "CAR ___ FIRE RECALL" (with the car identification, as specified in 2.29.1, inserted), and its positions marked "RESET," "OFF," and "ON" (in that order) in letters a minimum of 5 mm (0.25 in.) high. Text shall be black on a yellow background. Each switch shall~~ For groups of two or more elevators only, an additional three-position switch shall be provided for each elevator. This switch shall **(a)** conform to 2.27.3.1 and 2.27.8, except 2.27.3.1.2, and as modified by 2.27.11.1.2(b) through (d) **(b)** be labeled "CAR FIRE RECALL" or "CAR ___ FIRE RECALL" with black text on a yellow background. The elevator identification assigned in 2.29.1.1 shall be adjacent to the label "CAR FIRE RECALL" or inserted in the label "CAR___ FIRE RECALL". When the identification is not inserted in the label, the elevator identification shall be black text on a background that contrasts with black. **(c)** be located at the elevator discharge level adjacent to the elevator it controls **(d)** control the associated elevator in conformance with 2.27.3.1.6, but shall not control the other elevators controlled by the group fire recall ~~"GROUP FIRE RECALL"~~ switch (see 2.27.11.1.1). NOTE (2.27.11.1.2(b)): For example, "CAR A1 FIRE RECALL"		No comment	
2.27.11.1.3	**2.27.11.1.3** Each individual "CAR FIRE RECALL" switch shall ~~terminate Occupant Evacuation Operation~~ initiate Phase I Emergency Recall Operation for the elevator it controls when placed in the "ON" position. Each "GROUP FIRE RECALL" switch shall ~~terminate~~ initiate Phase I Emergency Recall Operation ~~Occupant Evacuation Operation~~ for the elevators it controls when placed in the "ON" position.		No comment	
2.27.11.1.4	**2.27.11.1.4** Each individual ~~"CAR FIRE RECALL"~~ car fire recall switch shall be provided with an illuminated visual signal ~~to indicate when Phase I Emergency Recall Operation is in effect for that car (see~~ in compliance with 2.27.3.1.5~~)~~.		No comment	
2.27.11.1.5	**2.27.11.1.5** To remove an individual elevator from Phase I Emergency Recall Operation, the individual ~~"CAR FIRE RECALL"~~ car fire recall switch shall be rotated first to the "RESET," and then to the "OFF" position, ~~provided that~~ and the following conditions exist: **(a)** the ~~"GROUP FIRE RECALL"~~ group fire recall switch is in the "OFF" position **(b)** ~~and~~ the additional two-position ~~"GROUP FIRE RECALL"~~ group fire recall switch (see 2.27.3.1.2), where provided, ~~are~~ is in the "OFF" position **(c)** no fire alarm initiating device is activated (see 2.27.3.2). When ~~the elevator(s) are~~ an individual elevator is removed from Phase I Emergency Recall Operation by its individual car fire recall switch per 2.27.11.1.5 while other elevators in the group are operating under OEO, the individual elevator shall return to OEO, ~~OEO remains in effect.~~ **NOTE** (2.27.11.1.5(a)): See 2.27.3.1.6(k)		No comment	
2.27.11.1.6	**2.27.11.1.6** ~~A car with its individual "CAR FIRE RECALL" switch in the "ON" position shall not be removed from Phase I Emergency Recall Operation when the.~~ An elevator in a group of two or more shall be removed from Phase I Emergency Recall Operation when the group fire recall ~~"GROUP FIRE RECALL"~~ switch is rotated to the "RESET" position and then to the "OFF" position and the following conditions exist: **(a)** the car fire recall switch (see 2.27.11.1.2), is in the "OFF" position **(b)** the additional two-position group fire recall switch (see 2.27.3.1.2), where provided, is in the "OFF" position **(c)** no fire alarm initiating device is activated (see 2.27.3.2)		No comment	
2.27.11.1.7	**2.27.11.1.7** The designated level shall be the same floor as the elevator discharge level. ~~At the elevator discharge level, only~~ Only the door(s) serving the lobby where the ~~"GROUP FIRE RECALL"~~ group fire recall switch is located shall open.		No comment	
2.27.11.1.8	**2.27.11.1.8** When firefighters' emergency operation, activated by key switch(es) in 2.27.3.1 or fire alarm initiating devices specified in 2.27.3.2, is in effect and signal(s) provided in 2.27.11.5 to initiate OEO are not actuated, the sign(s) required in 2.27.11.2.2 shall indicate that the elevator(s) in this group are not available. **NOTE** (2.27.11.1.8): Example text for all floors served by this group: "Elevators not available"		No comment	
~~2.27.11.2~~	~~**2.27.11.2** The sign required by 2.27.9 shall not be installed. A variable message sign, as defined in ANSI/ICC A117.1, shall be installed for each elevator group on each landing served. It shall be located not less than 2 130 mm (84 in.) and not more than 3 000 mm (120 in.) above the floor and in a central visible location within the elevator lobby. Message text shall be a minimum of 50 mm (2 in.) high and conform to ANSI/ICC A117.1 or Nonmandatory Appendix E, Clause E 20, whichever is applicable (see Part 9 and E-1). The variable message signs shall be powered by the same power supply as the elevator, including emergency or standby power. Where not prohibited by the building code, when the elevators are not on Occupant Evacuation Operation or Firefighters' Emergency Operation, the variable message signs shall be permitted to display other elevator system status messages.~~ ~~**NOTE:** Sample text: "Elevators in normal operation"~~		No comment	
2.27.11.2	**2.27.11.2 OEO Lobby Signage**		No comment	
~~2.27.11.2.1~~	~~**2.27.11.2.1** The sign required by 2.27.9 shall not be installed.~~		No comment	

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2.27.11.2.2	2.27.11.2.2 A variable message sign shall; (a) be installed for each elevator group or any single elevator not in a group at each landing served. (b) be located not less than 2 130 mm (84 in.) and not more than 3 000 mm (120 in.) above the floor and in a central visible location within the elevator lobby. (c) have message text a minimum of 50 mm (2 in.) high and conform to ANSI/ICC A117.1 or Nonmandatory Appendix E, Clause E-20, whichever is applicable (see Part 9 and E-1). (d) be powered by the same power supply as the elevator, including emergency or standby power. (e) when not on OEO or Firefighters' Emergency Operation, display an indication that it is powered. (f) when not prohibited by the building code or when not on OEO or Firefighters' Emergency Operation, be permitted to display information other than elevator system information, in lieu of an indication that it		No comment	
2.27.11.3	~~2.27.11.3 Where hoistway pressurization is provided, a car on Phase I Emergency Recall, after completing the requirements of 2.27.3.1.6, shall conform to the following:~~ ~~(a) A car shall close its doors after 15 s.~~ ~~(b) Door reopening devices, door force limiting devices, kinetic energy limiting devices, and the door open button shall remain active.~~ ~~(c) At least one operating device normally used to call a car to the landing (e.g., hall call button, keypad) shall be located in the elevator lobby at the elevator discharge level. Actuating this device shall cause all recalled cars to open their doors for 30 s to 45 s, then reclose.~~ 2.27.11.3 Reserved for Future Use		No comment	
2.27.11.4	2.27.11.4 ~~A~~ Where provided, position indicators at the elevator discharge level shall remain operative ~~shall be provided at the elevator discharge level above or adjacent to the entrance for each car.~~ The position indicator shall be powered by the same power supply as the elevator, including emergency or standby power.		No comment	
2.27.11.5.1	2.27.11.5.1 The fire alarm system interface shall conform with the requirements of 2.27.11.5.1(a) through (i). (a) An active automatic fire alarm initiating device as specified by NFPA 72 ~~in the building in any area~~ that does not initiate Phase I Emergency Recall Operation in this group, shall cause the fire alarm system to provide signals(s) to the elevator system in conformance with NFPA 72 ~~indicating the floors to be evacuated.~~ (b) The floors to be evacuated shall be a contiguous block of floors, designated as "elevator evacuation zone", consisting of at least the floor with an active alarm, two floors above and two floors below. (c) When the discharge level falls within the contiguous block, it shall be included in the contiguous block of floors but shall not be evacuated by the elevator(s). ~~The elevator system shall initiate OEO in accordance with 2.27.11.6 for the indicated floors.~~ (d) If the active alarm is on the elevator discharge level for this group, automatic initiation of OEO in accordance with 2.27.11.6 shall not be permitted. (e) If activation of an additional automatic fire alarm initiating device which does not initiate Phase I Emergency Recall Operation in this group occurs on an additional floor(s) including the discharge level at any time while OEO in accordance with 2.27.11.6 is in effect, the elevator evacuation zone shall be expanded. (f) The expanded evacuation zone shall ~~to~~ include all floors with an active alarm, all floors between the highest and lowest floor with an active alarm plus two floors above the highest floor with an active alarm and two floors below the lowest floor with an active alarm. ~~If the active alarm is on the elevator discharge level automatic initiation of OEO in accordance with 2.27.11.6 shall not be permitted.~~		No comment	
2.27.11.5.1	(g) Manual initiation of OEO by authorized or emergency personnel in conformance with NFPA 72 shall be permitted. (h) The elevator group or any single elevator not in a group shall indicate to the fire alarm system the status of its availability for OEO. (i) The elevator group or any single elevator not in a group shall indicate to the fire alarm system when OEO is active.		No comment	
2.27.11.5.1 NOTE	NOTE (2.27.11.5.1): (1) An "active alarm" refers to the condition caused by the "activation of an automatic fire alarm initiating device" that does not initiate Phase I Emergency Recall Operation in this group or any single elevator not in a group as used in this requirement. (2) Coordination between ~~needs to be provided between~~ the fire alarm system installer and the elevator system installer is required. For example, when a group of elevators do not service all the same floors.		No comment	
2.27.11.5.2	2.27.11.5.2 ~~A means to initiate total building evacuation, labeled "ELEVATOR TOTAL BUILDING EVACUATION" shall be provided at the fire command center location and installed in accordance with NFPA 72. When this means is actuated, the fire alarm system shall provide a signal to the elevator system indicating that all floors are to be evacuated.~~The elevator system shall initiate elevator total building evacuation in response to a signal from the fire alarm system in accordance with NFPA 72. NOTE (2.27.11.5.2): See NFPA 72 and applicable building code for the location of the activation means for elevator total building evacuation.		No comment	
2.27.11.6	2.27.11.6 When any of the signals provided in 2.27.11.5 actuate, ~~the elevators~~ for group(s) of elevators or any single elevator not in a group, that serve the elevator evacuation zone, OEO shall be in effect and ~~shall~~ conform to 2.27.11.6.1 through 2.27.11.6.10 in order to ~~move~~ evacuate occupants from the elevator evacuation zone ~~floors affected by the fire~~ to the elevator discharge level.		No comment	

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2.27.11.6.1	**2.27.11.6.1** The variable message signs required by 2.27.11.2.2 shall indicate one of the following messages: **(a)** On all floors in the elevator evacuation zone, with the exception of 2.27.11.6.1(d), they shall indicate that the elevators are available for evacuation and once a landing call is registered at the floor, the estimated time duration in minutes for the next elevator to arrive, including when the estimate time is less than a minute. **NOTE** (2.27.11.6.1(a)): ~~Sample~~ Example text: "Elevators and stairs available for evacuation. Next car in about 2 minutes." **(b)** On all floors not in the elevator evacuation zone, excluding the elevator discharge level, they shall indicate that elevator service is not available. **NOTE** (2.27.11.6.1(b)): ~~Sample~~ Example text: "Elevators temporarily dedicated to other floors." **(c)** On the elevator discharge level, they shall indicate that the ~~cars~~ elevators are in ~~evacuation mode~~ OEO and that ~~passengers~~ occupants should not use elevators. **NOTE** (2.27.11.6.1(c)): ~~Sample~~ Example text: "Elevators dedicated to evacuation. Do not enter elevator." **(d)** If no elevator(s) for a group are available ~~for OEO~~ to serve a floor(s) in the elevator evacuation zone ~~(fire service, inspection, shut off, etc.)~~, they shall indicate that elevator service is not available ~~On all floors in the elevator evacuation zone they shall also indicate~~ and that occupants should use ~~the~~ stairs for the affected floor(s). **NOTE (2.27.11.6.1(d)):** ~~Sample~~ Example text for floors being evacuated: "Elevators ~~out of service~~ not available. Use stairs to evacuate." ~~Sample text for other floors: "Elevators out of service."~~	**2.27.11.6.1** The variable message signs required by 2.27.11.2.2 shall indicate one of the following messages: (a) On all floors in the elevator evacuation zone, with the exception of (d), they shall indicate that the elevators are available for evacuation and once a landing call is registered at the floor, the estimated time duration in minutes for the next elevator to arrive, including when the estimate time is less than a minute. NOTE [2.27.11.6.1(a)]: Example text: "Press button for evacuation"; "Next elevator in about 2 minutes" ~~Example text: "Elevators and stairs available for evacuation, Next car in about 2 minutes."~~ ...	No comment	
2.27.11.6.2	**2.27.11.6.2** Automatic visual signal or variable message sign, and voice notification in each ~~car~~ elevator shall; **(a)** indicate that the ~~car~~ elevator is being used for evacuation ~~to evacuate the building.~~ **(b)** ~~in~~ In the event that the ~~car~~ elevator stops to pick up passengers at a floor other than the elevator discharge level, ~~the signals shall~~ instruct the passengers to remain in the car elevator. **(c)** upon Upon or prior to arrival at the elevator discharge level, instruct passengers ~~shall be notified~~ that they have arrived at the exit floor and to exit ~~quickly~~. Where used, the variable message sign ~~message~~ text shall be a minimum of 25 mm (1 in.) high and conform to ANSI/ICC A117.1 or Nonmandatory Appendix E, Clause E-20, whichever is applicable (see Part 9 and E-1). Voice notification shall be at least 10 dBA above ambient but not more than 80 dBA measured 1 525 mm (60 in.) above the floor, at the center of the car. **NOTE (2.27.11.6.2)**: Example text for when the elevator stops at a floor other than the discharge level: "Remain in the Elevator." Example text for when the elevators arrives at the discharge level: "Exit the Elevator."	**2.27.11.6.2** An automatic visual signal or variable message sign and voice notification in each elevator shall (a) indicate that the elevator is being used for evacuation. (b) in the event that the elevator stops to pick up passengers at a floor other than the elevator discharge level, instruct the passengers to remain in the elevator. (c) upon or prior to arrival at the elevator discharge level, instruct passengers that they have arrived at the exit floor and to exit. Where used, the variable message sign text shall be a minimum 25 mm (1 in.) high and conform to ~~ANSI/~~ICC A117.1 or Nonmandatory Appendix E, clause E-20, whichever is applicable (see Part 9 and Nonmandatory Appendix E, clause E-1). Voice notification shall be at least 10 dBA above ambient but not more than 80 dBA measured 1 525 mm (60 in.) above the floor, at the center of the car. NOTE (2.27.11.6.2): Example text for when the elevator stops at a floor other than the discharge level: "Remain in the elevator." Example text for when the elevator arrives at the discharge level: "Exit the elevator."	No comment	
2.27.11.6.3	**2.27.11.6.3** When OEO is in effect; **(a)** ~~actuated~~ all landing calls outside of the elevator evacuation zone shall be canceled and disabled. **(b)** car calls for all floors, except for the elevator discharge level, shall be canceled and disabled. **(c)** building security systems that limit service to the elevator evacuation zone shall be overridden. ~~b) in effect any landing call within the elevator evacuation zone shall call an elevator(s) to that landing.~~ **(d~~e~~)** ~~in effect~~ landing calls entered at the floor(s) with an active alarm shall be given higher priority than the calls at the floors without an active alarm. **(e~~d~~)** ~~in effect~~, if a subsequent active alarm is received for a different floor, the evacuation priority shall be assigned in the sequence received. **(f~~e~~)** ~~in effect~~, after answering a landing call and passengers have entered ~~an elevator~~, the elevator it; **(1)** shall proceed towards the elevator discharge level, except as required by 8.4.10.1.3. **(2)** is permitted to answer additional landing call(s). ~~f) in effect, building security systems that limit service to the elevator evacuation zone shall be overridden.~~		No comment	
2.27.11.6.4	**2.27.11.6.4 Reserved for future use** ~~Car calls for all floors, except for the elevator discharge level, shall be canceled and disabled.~~ ~~Rationale: Based on approved R15-636 changes. Moved to 2.27.11.6.3(b).~~		No comment	
2.27.11.6.5	**2.27.11.6.5** ~~Cars~~ When OEO is initiated, elevators without car calls, ~~when OEO is actuated shall~~; **(a)** ~~move~~ shall proceed ~~without delay~~ to a floor within the elevator evacuation zone, ~~and park with the door(s) closed if no landing call is registered.~~ **(b)** ~~If the car is in motion away from the elevator evacuation zone, it shall stop at or before the next available floor, without opening the doors, reverse direction, and move to a floor within the elevator evacuation zone.~~ when traveling away from the elevator evacuation zone, shall reverse at or before the next available landing without opening its doors and proceed to the elevator evacuation zone. If no landing call is registered within the elevator evacuation zone, the elevator shall park with the door(s) closed and the ~~The~~ door open button~~s~~(s) shall remain operative.		No comment	

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2.27.11.6.6	**2.27.11.6.6** ~~Cars~~ When OEO is initiated, elevators with car calls, ~~when OEO is actuated;~~ **(a)** shall proceed ~~without delay~~ to the elevator discharge level. **(b)** ~~If a reversal of travel direction is needed, it shall be done at or before the next available floor without opening the doors.~~ when traveling away from the discharge level, shall reverse at or before the next available landing without opening its doors and proceed to the discharge level. After opening and closing the doors at the elevator discharge level, ~~they~~ the elevator(s) shall proceed ~~without delay~~ to a floor within the elevator evacuation zone ~~and park with the doors closed if no landing call is registered.~~ If no landing call is registered within the elevator evacuation zone, the elevator shall park with the door(s) closed and the ~~The~~ door open buttons shall remain operative.		No comment	
2.27.11.6.7	**2.27.11.6.7** When ~~a car~~ the elevator answers a landing call at a floor within the elevator evacuation zone, a car call for the elevator discharge level shall be automatically registered. ~~The system shall accept a new landing call as soon as the doors have opened to permit loading at that floor, or sooner. If a new landing call is registered at this floor, it shall be assigned to another car, and not canceled until that car arrives. Actuation of the landing call device at this floor shall not prevent a loaded car~~ Additional landing call(s) shall be accepted at a floor where an elevator is currently loading and shall not prevent the loading elevator from closing its doors and leaving the floor. Devices that determine the number of passengers waiting at the landing shall be permitted to be used to determine the number of elevators(s) to be assigned to the landing.		No comment	
2.27.11.6.8	**2.27.11.6.8** While passengers are entering the car elevator at a floor being evacuated, **(a)** the door(s) shall operate in conformance with 2.13 and as modified in 2.27.11.6.8(b) **(b)** ~~when the load reaches no greater than~~ at a load within the range of 60% to 80% of rated load ~~car capacity~~, the door reopening device(s) shall be disabled and the doors shall initiate closing at reduced kinetic energy in accordance with 2.13.4.2.1(c). ~~If the doors stall while closing, they shall reopen fully, then close.~~ The in-car door open button(s) shall remain operative **(c)** if doors are closing at reduced kinetic energy, the ~~An~~ audible signal shall sound until the doors are closed. **(d)** ~~i~~If the load exceeds 100% of capacity, **(1)** the doors shall reopen and remain open and a voice notification and visual signal shall indicate that the ~~car~~ elevator is overloaded. **(2)** if no additional landing call was entered at the floor while the elevator was loading (see 2.27.11.6.7) then a landing call shall be automatically entered for the floor of the overloaded elevator. **NOTE (2.27.11.6.8(d))**: Example text for the visual signal when the elevator is overloaded: "Elevator is overloaded."		No comment	
2.27.11.6.9	**2.27.11.6.9** Once the ~~block of floors being evacuated has been~~ floors within the elevator evacuation zone are evacuated, as indicated by a 60 s period in which no landing calls are registered, ~~one car~~ an available elevator shall park with its doors closed ~~at the lowest floor of the block of floors~~ within the elevator evacuation zone for this group ready to answer subsequent landing calls within the elevator evacuation zone. The remaining elevator(s) shall park with doors closed at the elevator discharge level. If additional demand is registered, calls shall be answered in accordance with 2.27.11.6.3. ~~A car parked at the elevator discharge level shall replace the car at the lowest floor of the block, that has answered a landing call.~~		No comment	
2.27.11.6.10	**2.27.11.6.10** OEO ~~Occupant Evacuation Operation~~ shall be terminated for this group of elevators or for any single elevator not in a group when one of the following occurs: **(a)** the fire alarm system is reset, or **(b)** the signals provided in 2.27.3.2 are actuated (see 2.27.11.1.3).		No comment	
2.27.12		**2.27.12 Emergency Responder Radio Coverage (ERRC) Equipment Inside Cars** Components of ERRC equipment, when provided, shall be installed within the elevator car enclosure for exclusive use by emergency responders.	Wisconsin has allowed Responder Radio Coverage for elevators as a courtesy.	
2.27.12.1		**2.27.12.1** These components shall: (a) be installed and accessible only from inside the elevator car enclosure (see also 2.27.12.3). (b) not be accessible to the general public (c) be installed and identified in accordance with IFC or NFCC, UL 2524, NFPA 1221 or NFPA 1225 and NFPA 72.	Is there a concern with powering these systems with power on the car? What components can be located in the hoistway?	Somehow remind other trades that elevator controllers are Group 1 security - restricted only to elevator personnel. Controllers may not be opened by other tradespersons, authorized personnel or others.
2.27.12.2		**2.27.12.2** These components shall be limited to: (a) antenna (b) remote repeater unit (c) power supply supporting the remote repeater unit	No comment	
2.27.12.3		**2.27.12.3 ERRC Antenna(s).** Antenna(s) installed in the car enclosure shall comply with the following: (a) the non-radiating coaxial cable connecting the antenna to the radio frequency source shall be permitted to be included in the elevator traveling cable(s) (b) the non-radiating coaxial cable from the antenna to the elevator traveling cable shall be permitted to pass through and/or terminate in the car operating panel (c) the non-radiating coaxial cable feeding the antenna shall be permitted to pass through the machinery spaces, machine rooms, control spaces, and control rooms.	No comment	

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2.27.12.4		**2.27.12.4 Remote Repeater Units.** Remote repeater units and associated power supplies installed in the car enclosure shall comply with the following: (a) a fiber optic cable connecting the remote repeater unit shall be permitted to be included in the elevator traveling cable(s) (b) power for the remote repeater unit shall be permitted to pass through the elevator traveling cable(s) (c) when the power source for the remote repeater unit is not in the elevator car enclosure, the power feeders for the remote repeater unit shall be permitted to terminate in the elevator controller in the machine room, control room or control space. The installation shall be in accordance with NFPA 70 or C22.1 (see also 2.26.4.1). (d) repair, replacement and testing of the remote repeater unit(s) by authorized personnel shall be	No comment	
2.27.12.5		**2.27.12.5 Repair, Replacement and Testing.** Repair, replacement and testing of ERRC equipment by authorized personnel shall be permitted when access is provided by any of the following: (a) from inside the car enclosure (b) access is provided by elevator personnel (c) in accordance with 2.8.7.3.1	No comment	
2.27.13		Flood Detection Operation	No comment	
2.27.13.1		**2.27.13.1** The flood detection means (see 2.2.9), when actuated shall, for all affected elevators: (a) cause automatic elevators, that are not on Hospital Service, Inspection Operation (see 2.26.1.4), Firefighters' Emergency Operation (see 2.27.3), Earthquake Operation (see 8.4.10), or Hoistway Access Operation (see 2.12.7.3), to proceed to the next available landing above the flood elevation or, in the case where there is no available landing above the flood elevation, the highest available landing. Upon arrival at the landing, power operated doors shall open and then initiate reclosing within 15 s. The door open button(s) shall remain operative and when released, automatic closing shall be initiated within 15 seconds. For elevator(s) operating in accordance with the requirements of 2.27.2.4.4(a), replace "designated level" with "the next available landing above the flood elevation or, in the case where there is no available landing above the flood elevation, the highest available landing." (b) where the designated level is at or below the flood elevation: (1) cause automatic elevators that are on Phase 1 Emergency Recall Operation by Fire Alarm Initiating Devices [see 2.27.3.2] to proceed to the alternate level [see 2.27.3]. The alternate level shall become the recall level [see 2.27.2.4.4(c) and 2.27.3.2.4(c)] and remain as the recall level until Flood Detection Operation is terminated [see 2.27.12.1(f)]. (2) recall to the designated level per requirement 2.27.3.1.6 shall not be initiated during Flood Detection Operation. (c) cancel and disable landing call(s) and car call(s) for upper floors where the bottom of the counterweight could descend below the flood elevation. (d) cancel and disable landing call(s) and car call(s) for floors at or below the flood elevation, and prohibit movement of the car to a position at or below the flood elevation due to any automatic mode of operation. (e) activate visual and audible signals inside the car, and at locations where inspection operation is active (see 2.26.1.4 and 2.26.1.5). These signals shall meet the following requirements: (1) The audible signal required by 2.27.3.1.6(h) shall be permitted to be used for this purpose in the car and the audible signal required by 2.27.6 shall be permitted to be used at the location of inspection switches in lieu of a separate audible signal(s). The audible signal shall remain active for a minimum of 30 s. The audible signal shall be active when on Inspection Operation or Hoistway Access Operation. (2) A visual signal, labeled or displaying "FLOOD" in red lettering a minimum of 5 mm (0.25 in.) in height, shall be located in the car operating panel above the floor selection means and at all other inspection stations except pit inspection. The visual signal shall remain activated until the flood detection means is reset. (f) cause Flood Detection Operation to remain activated until the flood detection means is manually reset by elevator personnel. The reset means shall be Group 1 Security (see Section 8.1).	No comment	
2.27.13.2		**2.27.13.2** For elevators on Inspection Operation or on Hoistway Access Operation, the elevator car shall not be permitted to travel down when below the flood elevation or travel up where the bottom of the counterweight will descend below the flood elevation, except that travel shall always be permitted to allow elevator personnel to exit the car top at a landing.	No comment	
2.27.13.3		**2.27.13.3** For elevators on earthquake emergency operation the elevator shall conform to: (a) 8.4.10.1.3 except that hoistway scan operation ([see 8.4.10.1.3(d)]) shall not operate when the flood detection means is actuated. (b) 8.4.10.1.4 except that the elevator car shall not be permitted to travel down when below the flood elevation.	No comment	
2.27.13.4		**2.27.13.4** An elevator on OEO shall indicate to the fire alarm system it is unavailable for OEO and shall conform to 2.27.12.1 [see 2.27.11.6.1(d)].	No comment	
2.28.1	**2.28.1(k)** locations of access panels and protective guards when provided in compliance with 2.8.2.4(b).	**2.28.1 I**nformation Required on Layout Drawings ... (i) the horizontal forces on the building structure stipulated by 2.11.11.8 ~~and 2.11.11.9~~, 2.11.12.4.6, or 2.11.13.3.5, whichever is applicable (l) locations of ERRC radiating coaxial cable(s), antenna(s) and access panels, where provided. (n) the flood elevation (see definition)	No comment	

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment
3.6.3			
3.7.1	3.7.1 Requirements	3.7.1 Requirements Machinery spaces, machine rooms, control spaces, and control rooms shall conform to the requirements of 2.7.1 through 2.7.7 and 2.7.9. NOTE: (3.7.1) See also 8.12.1 for additional requirements which could affect location of equipment.	No comment. 8.12.1 is flood resistant design.
3.12	SECTION 3.12 HOISTWAY DOOR LOCKING DEVICES, ~~ELECTRIC CONTACTS~~ CLOSED DETECTION MEANS, AND HOISTWAY ACCESS SWITCHES		No comment
3.12.2	3.12.2 Car Door or Gate ~~Electric Contacts~~ Closed Detection Means and Car Door Interlocks Car door or gate ~~electric contacts~~ closed detection means and car door interlocks shall conform to 2.14.4.2.		No comment
3.18.3.8.3 (b)			SPS 318.1703 (1) (a) - (f) No changes needed, however SPS 318.1703 (1) (e) 2. for the testing of flexible in-ground jack protection should be moved to the "Test" section of SPS 318 that corresponds with 8.6.5.14. This should be added to the test form also.
3.18.4.1		3.18.4.1 Metal Stops and/or Other Means. Metal stops and/or other means shall be provided at one end of the plunger and at the packing head end of the cylinder to prevent the plunger from traveling beyond the limits of the cylinder. The metal stops and/or other means shall be so designed and constructed as to stop the plunger traveling in the up direction at maximum speed under full load pressure, should the normal terminal stopping device (see 3.25.1) fail to operate, or at a reduced speed when a terminal speed-reducing device is provided as required by 3.25.2. No running test onto the stop ring is required [see 8.10.3.2.2(~~a~~z)].	No comment
3.19.2.5	3.19.2.5 Jack Side Pressure Measurement Means ~~Pressure Gauge Fittings~~. **a)** A pressure gauge fitting shall be provided on jack side of the check valve in or immediately adjacent to the hydraulic control valve. ~~When a pressure gauge is permanently installed, a shutoff means shall be provided to protect the gauge. Where the hydraulic machine is located in the hoistway, the pressure gauge fittings shall only be accessible to elevator personnel from outside the hoistway (see 8.1).~~ **b)** A pressure measurement means, accessible ~~to elevator personnel~~ from outside the hoistway, only by elevator personnel (see 8.1), shall be provided by one of the following methods: **(1)** a pressure gauge fitting, and where a permanent gauge is installed, a shutoff means shall be provided to protect the gauge; or **(2)** a pressure sensing means display, and the pressure gauge fitting shall be located either inside or outside the hoistway.		No comment
3.19.2.7		3.19.2.7 Where the hydraulic machine is located in the hoistway and any piping, tubing, or fitting permitted by 3.19.2.4 is located outside the hoistway, means shall be provided to either (a) protect the specified piping, tubing, or fittings from damage, which would cause unsafe elevator operation or (b) prevent uncontrolled movement of the elevator in the event of failure of the specified piping, tubing, or fittings	No comment
3.19.4.1	3.19.4.1 Shutoff Valve. A manually operated shutoff valve shall be provided between the hydraulic machines and the hydraulic jack ~~and shall be located outside the hoistway and adjacent to the hydraulic machine. Where the hydraulic machine is located in the hoistway, the manually operated shutoff valve shall be permitted to be located inside the hoistway, provided that it is accessible from outside the hoistway to elevator personnel only (see 8.1).~~		No comment
3.19.4.1.1	3.19.4.1.1 When the hydraulic machine is located outside the hoistway, the shutoff valve shall be located adjacent to the hydraulic machine (see Section 8.1.~~3~~).		No comment
3.19.4.1.2	3.19.4.1.2 When the hydraulic machine is located in the hoistway, the operation of the shutoff valve shall be located so that it is accessible ~~to elevator personnel~~ from outside the hoistway, only by elevator personnel (see Section 8.1.~~2~~). The shutoff valve shall have a means to indicate the fully opened and fully closed positions at the location of the operation.		No comment
3.19.4.4	3.19.4.4 Manual Lowering Valve. A manually operated valve, located on or adjacent to the control valves, shall be provided and identified, which permits lowering the car at a speed not exceeding 0.10 m/s (20 ft/min). This valve or a means to manually operate the valve shall be so marked to indicate the lowering position. Where the hydraulic machine is located in the hoistway, the manual lowering valve or the means to manually operate the valve shall ~~only~~ be accessible ~~to elevator personnel~~ from outside the hoistway, only by elevator personnel (see 8.1).		No comment
3.22.1.2.1		3.22.1.2.1 Spring buffers shall be capable of with- standing the loading per 8.2.3.2 without being compressed solid. ~~Elastomeric buffers shall be capable of withstanding the loading per 8.2.3.1 without being compressed 90% of the installed buffer height (see 2.22.5.4).~~	No comment
3.24.3.3	3.24.3.3 Means for Checking Liquid Level. Tanks shall be provided with means for checking the liquid level. Such means shall be accessible without the removal of any cover or other part.	Means for Checking Liquid Level. Tanks shall be provided with means for checking the liquid level. Such means shall be readily accessible (see Section 1.3) ~~without the removal of any cover or other part.~~	No comment

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment
3.26.1	**3.26.1 Operating Devices and Control Equipment** Operating devices and control equipment shall conform to 2.26, except as modified by the following: (i) Requirement 2.26.1.7.1 is replaced by 3.26.11.1	**3.26.1 Operating Devices and Control Equipment** Operating devices and control equipment shall conform to Section 2.26, except as modified by the following: (a) Requirement 2.26.1.3 does not apply. (b) Requirement 2.26.1.4 applies as specified by 3.26.2. (c) Requirement 2.26.1.6 applies as specified by 3.26.3. (d) Requirement 2.26.2 applies as specified by 3.26.4. (e) Requirement 2.26.6 does not apply. (f) Requirement 2.26.14.5 applies except the words "driving-machine motor and brake" in 2.26.14.5 shall be replaced with "hydraulic machine." (~~f~~g) Requirement 2.26.8 does not apply. (~~g~~h) Requirements 2.26.9.1, 2.26.9.2, and 2.26.9.5 through 2.26.9.7 do not apply. (~~h~~i) Requirement 2.26.10 does not apply. (~~i~~j) Requirement 2.26.1.7.1 is replaced by 3.26.11.1. (k) Requirement 2.26.13 applies as modified by 3.26.12.	No comment
3.26.3.1.2			**SPS 318.1703 (2).** No changes
3.26.4.2	**3.26.4.2** When in the open position, the following devices shall initiate removal of power from the hydraulic machine in such a manner as to produce an average deceleration rate not greater than 9.8 m/s2 (32.2 ft/s2) and shall prevent operation by all operating means except the anticreep device: **(a)** ... **(c)** hoistway door interlocks or hoistway door ~~contacts~~ closed detection means **(d)** car door or gate ~~electric contacts~~ closed detection means; or car door interlocks **(e)** hinged car platform sill electric contacts **(f)** in-car stop switch, where required by 2.26.2.21		No comment
3.26.8	**3.26.8 Pressure ~~Switch~~ Sensing Means** When cylinders are installed with the top of the cylinder above the top of the storage tank, a pressure ~~switch~~ sensing means shall be provided in the line between the cylinder and the check valve, which shall ~~be activated by~~ detect the loss of positive pressure at the top of the cylinder. ~~The switch~~ When the loss of positive pressure is detected, the control system shall prevent automatic door opening and the operation of the lowering valve or valves. The door(s) shall be permitted to open by operation of the in-car open button(s), when the car is within the unlocking zone.		No comment
3.26.10	**3.26.10** Where the auxiliary power supply is provided solely for the purpose of lowering the car, in the case of main power supply failure, the auxiliary lowering operation shall conform to 3.26.10.1 through 3.26.10.3.	**3.26.10** Where the auxiliary power supply is provided solely for the purpose of lowering the car, in the case of ~~main power supply~~ main line power failure, the auxiliary lowering operation shall conform to 3.26.10.1 through 3.26.10.3.	No comment
3.26.10.1	**3.26.10.1** Auxiliary lowering shall be permitted to be initiated, provided that all operating and control devices, including door open and door close buttons, function as with normal power supply, except that the following devices shall be permitted to be bypassed or made inoperative: (a) landing and car floor registration devices (or call buttons) (b) devices enabling operation by designated attendant (hospital service, attendant operation) (c) devices initiating emergency recall operation to the recall level, unless otherwise specified in Section 3.27 (d) the "FIRE OPERATION" switch, unless otherwise specified in Section 3.27	**3.26.10.1** Auxiliary lowering shall be permitted to be initiated, provided that all operating and control devices, including door open and door close buttons, function as with normal ~~power supply~~ building power, except that the following devices shall be permitted to be bypassed or made inop- erative: (a)landing and car floor registration devices (or call buttons) (b)devices enabling operation by designated attendant (hospital service, attendant operation) (c)devices initiating emergency recall operation to the recall level, unless otherwise specified in Section 3.27 (d)the "FIRE OPERATION" switch, unless otherwise specified in Section 3.27	No comment
3.26.11.1	3.26.11.1 Executable software used in performing one or more of the functions listed below shall have a USI for each software version. Changes in executable software for any of the following functions shall require a new USI: **(a)** 2.26.1.7.1 (a) through (c), (e), and (i) through (n) **(b)** Power operation of hoistway doors and car doors (3.13) **(c)** Electrical activation means (Plunger Gripper) (3.17.3.2.1). **(d)** Normal Terminal Stopping Device (3.25.1) **(e)** Terminal Speed-Reducing Device (3.25.2) **(f)** Phase Reversal and Failure Protection (3.26.5) **(g)** Control and Operating Circuits (3.26.6) **(h)** Recycling Operation for Multiple or Telescopic Plungers (3.26.7) **(i)** Pressure Switch (3.26.8) **(j)** Low Oil Protection (3.26.9) **(k)** Auxiliary Power Lowering Operation (3.26.10) **(l)** Emergency Operation and Signaling Devices (3.27)	**3.26.11.1** Executable software used in performing one or more of the following functions shall have a USI for each software version. Changes in executable software for any of the following functions shall require a new USI: (a) 2.27.1.7.1(a) through 2.26.1.7.1(c), 2.26.1.7.1(e), and 2.26.1.7.1(i) through 2.26.1.7.1(n) (b) power operation of hoistway doors and car doors (see Section 3.13) (c) electrical activation means (plunger gripper) (see 3.17.3.2.1) (d) normal terminal stopping device (see 3.25.1) (e) terminal speed-reducing device (see 3.25.2) (f) phase reversal and failure protection (see 3.26.5) (g) control and operating circuits (see 3.26.6) (h) recycling operation for multiple or telescopic plungers (see 3.26.7) (i) pressure switch (see 3.26.8) (j) low oil protection (see 3.26.9) (k) auxiliary power lowering operation (see 3.26.10) (l) emergency operation and signaling devices (see Section 3.27) (m) test enable operation (see 2.26.14) (n) anticreep releveling (see 3.26.3) (o) plunger follower (see 3.18.2.7) (p) any operating mode restricted to Group 1 (see 8.1.2) (q) restricted opening of car doors (see 2.14.5.7) (r) a function, device, or means that is required by the Code to be manually reset	(USI) Unique Software Identifier No comment
3.26.11.2	3.26.11.2 Software based parameters are permitted and shall not modify the USI when adjusted or selected in the field.	**3.26.11.2** Software-based parameters are permitted and shall not modify the USI when adjusted or selected in the field. See also 8.14.1(b).	No comment
3.26.11.3	3.26.11.3 The Control system shall include a means to view the USI(s) on-site. Examples of viewing means include, but are not limited to, one or more of the following: **(a)** electronic viewing that is part of the elevator or group of elevators, **(b)** labeling of device, **(c)** labeling or tags on the control or assembly.		No comment
3.26.12		3.26.12 Remote Interaction Operation	

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment
3.26.12.1		**3.26.12.1** When remote interaction is provided, in addition to applicable functions indicated in 2.26.13.3, remote interaction operation (RIO) shall not enable, disable, override, reset, nor interfere with any of the following operations: (a) auxiliary power lowering operation (see 3.26.10) (b) anticreep releveling (see 3.26.3) (c) recycling operation (see 3.26.7)	No comment
3.26.12.2		**3.26.12.2** When remote interaction is provided, in addition to the applicable functions indicated in 2.26.13.4, RIO shall not interfere with, modify, reset, render ineffective, nor render inoperative (a) low oil protection (see 3.26.9) (b) phase reversal protection (see 3.26.5) (c) plunger gripper electrical actuation means (see 3.17.3.2.1) (d) plunger follower (see 3.18.2.7) (e) pressure sensing means (see 3.26.8)	No comment
3.27		**3.27 EMERGENCY OPERATION AND SIGNALING DEVICES** Emergency operation and signaling devices shall conform to 2.27, except as modified by the following: (a) In requirement 2.27.2.4.4 (a) replace the wording with the following: "An elevator that is not on designated attendant operation, hoistway access operation, inspection operation, Firefighters' Phase I Emergency Recall Operation, or Firefighters' Phase II In-Car Emergency Operation shall return to the designated level where the power operated doors at the landing where the illuminated signal (see 2.27.2.3) is located shall open. Where more than one entrance is provided at the designated level, the other doors are permitted to open and, when open, automatic closing shall be initiated within 15 s. When the selected elevator is at the designated level or fails to move within 30 s, the selection shall be automatically transferred to another elevator. The door open button(s) shall be operative and when released, automatic closing shall be initiated within 15 s. If the doors are open when the selection means selects another elevator, automatic closing shall be initiated within 15 s." (b) In requirement 2.27.2.4.4(c) replaced the wording with the following: "An elevator that is on Firefighters' Phase I Emergency Recall Operation shall return to the recall level in accordance with 2.27.3.1 or 2.27.3.2 and upon arrival, automatic power doors shall open. Once recall is complete, or the selected elevator fails to move within 30 s, the selection shall be automatically transferred to another elevator. The door open button(s) shall be operative and when released, automatic closing shall be initiated within 15 s. When selected and at the recall level, the door shall open in accordance with 2.27.3.1 or 2.27.3.2. If the doors(s) are open when the selection means selects another elevator, automatic closing shall be initiated within 15 s." (c) The requirements of 3.26.9 and 3.18.2.7 shall be modified when Phase I Emergency Recall Operation and Phase II Emergency In-Car Operation are in effect, as specified in 3.27.1 through 3.27.4. (d) The requirements of 2.27.3.2.1(b) and 2.27.3.2.2(b) shall be modified to include a machinery space containing a hydraulic machine.	No comment
3.27.1		**3.27.1 Phase I Emergency Recall Operation After Device Actuation** If Phase I Emergency Recall Operation is activated while the elevator is responding to any of the following devices, the car shall return to the recall level: (a) low oil protection (see 3.26.9) (b) plunger-follower guide protection, provided the car is capable of being moved (see 3.18.2.7) (c) auxiliary power lowering (see 3.26.10) (d) oil tank temperature shutdown (see 3.26.6.5) If the elevator is incapable of returning to the recall level, the car shall descend to an available floor. Upon arrival, automatic power-operated doors shall open, and ~~then reclose~~ when open, automatic closing shall be initiated within 15 s. The door open button(s) shall remain operative and, when released, automatic closing shall be initiated within 15 s. The visual signal [2.27.3.1.6(h)] shall extinguish.	No comment
3.27.2		**3.27.2 Phase I Emergency Recall Operation Prior to Device Actuation** (a) If any of the devices specified in 3.27.1(a) through 3.27.1(d) is activated while Phase I Emergency Recall Operation is in effect but before the car reaches the recall level, the car shall do one of the following: (1) If the car is above the recall level, it shall complete Phase I Emergency Recall Operation. (2) If the car is below the recall level, it shall descend to an available floor. (b) Upon arrival, automatic power-operated doors shall open, and ~~then~~ reclose when open, automatic closing shall be initiated within 15 s. The door open button(s) shall remain operative and, when released, automatic closing shall be initiated within 15 s. The visual signal [see Fig. 2.27.3.1.6(h)] shall extinguish.	No comment
3.27.3		**3.27.2 Device Actuation at Recall Level** If any of the devices specified in 3.27.1(a), 3.27.1(c), or 3.27.1(d) is activated while the car is stationary at the recall level and Phase I Emergency Recall Operation is in effect, the following shall apply: (a) Automatic power-operated doors shall ~~close~~ initiate closing within 15 s. (b) The door open button(s) shall remain ~~operational~~ operative and, when released, automatic closing shall be initiated within 15 s. (c) The visual signal [see Fig. 2.27.3.1.6(h)] shall illuminate intermittently.	No comment
3.27.5		**3.27.5** Flood Detection Operation (a) Flood Detection Operation shall conform to 2.27.12. (b) If the elevator is incapable of returning to the next available landing above the flood elevation the car shall proceed to the highest possible floor. Upon arrival, automatic power-operated doors shall open, and then initiate reclosing within 15 s. The door open button(s) shall remain operative and when released, automatic closing shall be initiated within 15 seconds. (c) If any of the operations specified in 3.18.2.7, 3.26.6.5, 3.26.7, 3.26.9, 3.26.10 or 3.27.1(a), (b), (c) or (d) are actuated, the car shall not be permitted to travel down when below the flood elevation.	No comment
3.28.1		**3.28.1** … (p) the flood elevation (see definition)	No comment

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment
4.1.26.7		Added "or Means" to the heading (22) **4.1.26.7 Installation of Capacitors or Other Devices or Means to Make Electrical Protective Devices Ineffective.** Installation of capacitors or other devices to make electrical protective devices ineffective are prohibited in accordance with 2.26.7.	No comment
4.2.12	Section about screw drive safety nut removed		Not sure why this was removed
4.2.15.11		Added "normal building" to describe the power failure, for clarity.	No comment

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment
		LULAS	
5.2.1.4.5	LULA elevators: "Refuge" removed from the title and text about the space on the car top. Changed the description of the refuge areato be more similar to the description of refuge area for a full-size elevator.		No comment
5.2.1.7			**SPS 318.1705 (1).** No changes **SPS 318.1705 Special application elevators. (1)** LIMITED-USE, LIMITED-APPLICATION ELEVATORS. Substitute the following wording for the requirements in ASME A17.1 section 5.2.1.7: Equipment shall be permitted to be located in rooms containing other equipment essential for the operation of the building.
5.2.1.16.2(a)	LULA elevators: Removed parenthetical (kg), (lb)		No comment
5.2.1.16.2(b)	LULA elevators: Added requirement for data plates to also meet 2.16.3.1.		No comment
5.2.1.19			**SPS 318.1705 (2).** No changes **(2)** HYDRAULIC LIMITED-USE, LIMITED-APPLICATION ELEVATORS. This is a department exception to the requirements in ASME A17.1 section 5.2.2: Hydraulic limited-use, limited-application elevators are not required to conform to the requirements in ASME A17.1 section 5.2.1.19.
		PRIVATE RESIDENCE ELEVATORS	
5.3			**SPS 318.1705 (3) (a).** No changes **(3)** PRIVATE RESIDENCE ELEVATORS. (a) This is a department rule in addition to the requirements in ASME A17.1 section 5.3: Machinery spaces, machine rooms, control spaces, and control rooms where provided shall conform to the requirements in ASME A17.1 section 5.2.1.7.
5.3			**SPS 318.1705 (3) (ag).** No changes (ag) This is a department rule in addition to the requirements in ASME A17.1 section 5.3: A previously approved residential elevator installed to serve a commercial building may be replaced with a residential type elevator in the existing hoistway. A new installation permit is required.
5.3			**SPS 318.1705 (3) (ar). Delete ceiling skirt for shaftless res.** (ar) This is a department rule in addition to the requirements in ASME A17.1 section 5.3.1.1.1: With the car at the lowest landing, the space above the car shall be guarded on all accessible sides by a partial enclosure extension or skirt. The extension shall be solid material or openwork that will reject a ball 1/2 inch diameter. The extension shall extend from the lower landing ceiling to 1 to 2 inches below the top edge of the car. Horizontal clearance between the car and the extension shall be 3/8 inch to 3/4 inch.
5.3.1.3	Res. Elevators: Added allowance to have a car top prop to provide overhead clearance for maintenance and inspection. Removed statement addressing controls possibly being located at the top of the hoistway.		Controls must be provided with electrical working clearance
5.3.1.5.	Res. Elevators: Added statement that non-elevator equipment cannot be in the hoistway		Could be a significant change for some. A good change.
5.3.1.6	Changed title from "Guarding of Suspension Means" to "Machinery Spaces, Machine Rooms, Control Spaces and Control Rooms". An almost entirely new section bringing residential requirements much closer to commercial requirements regarding protection and guarding of equipment, limitations on access, working clearances, controls located in inspection and test panels or on elevator cars, temperature and humidity control, hoistway access openings, requiremenst for a display device for miving the car where the machine is in the hoistway		Great improvement to catch up to modern elevators but we're concerned with inviting controllers to be located inside the hositway. This is not clear that controllers must be provided with the required electrical working clearance therefore may not be in the hoistway.

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment
5.3.1.6.1			**SPS 318.1705 (3) (cg).** No changes except this should be earlier in SPS 318. (cg) This is a department rule in addition to the requirements in ASME A17.1 section 5.3.1.6.1: Ropes and chains passing through a wall outside the hoistway enclosure shall be enclosed with a solid or openwork enclosure. If the enclosure is openwork, the enclosure shall reject a ball 13 mm, or 0.5 in., in diameter. Means for inspection shall be provided. The openings may not be larger than is necessary to clear the suspension means.
5.3.1.7.1	Renumbered to 5.3.1.8.1		No comment
5.3.1.7.2	Renumbered to 5.3.1.8.2		**SPS 318.1705 (3) (c).** Correct numbering to 5.3.1.8.2. (c) This is a department rule in addition to ASME A17.1 requirement 5.3.1.7.2: The vertical clearance between the hoistway door and the floor surface shall not exceed 3/8 inch.
5.3.1.7.3	New requirements for Remote Machine Rooms and Control Rooms or Remote Machinery Spaces **5.3.1.7.3 Remote Machine Rooms and Control Rooms or Remote Machinery Spaces.** Where machine rooms, machinery spaces, control rooms, or control spaces are located remotely from the hoistway, any equipment passing through intervening spaces that poses a hazard shall be guarded to protect against contact. Where the guarding can be removed, a sign in conformance with the requirements of ANSI Z535.2 or CAN/CSA-Z321, whichever is applicable, shall be located on or adjacent to the guarding warning of the potential hazards.		**SPS 318.1705 (3) (cw).** Does the new 5.3.1.7.3 allow us to remove this from SPS 318? (cw) This is a department rule in addition to the requirements in ASME A17.1 section 5.3.1.16: Rotating parts located outside of the hoistway for private residence elevators shall be enclosed with a solid or openwork enclosure. If the enclosure is openwork, the enclosure shall reject a ball 13 mm, or 0.5 in., in diameter. Means for inspection shall be provided. The openings may not be larger than is necessary to clear the rotating parts.
5.3.1.7.4 (a)	Renumbered to 5.3.1.8.4 **5.3.1.8.4 Locking Devices for Hoistway Doors and Gates.** Hoistway doors or gates shall be provided with locking devices. The locking device shall be a type that will either *(a)* prevent car movement unless the door is locked in the closed position *(b)* permit the car to start if the door or gate is in the closed position but not locked, provided that the device stops the car if the door or gate fails to lock before the car has moved 150 mm (6 in.) away from the landing. The device shall also prevent the opening of the hoistway door or gate unless the car is within 150 mm (6 in.) of the landing. The locking device shall conform to 2.12.4.		**SPS 318.1705 (3) (cn).** Why did we put this in the code? (cn) The allowance in ASME A17.1 section 5.3.1.7.4 (a) is not included as part of this chapter.
5.3.1.8	Renumbered to 5.3.1.9		No comment
5.3.1.8.1	Renumbered to 5.3.1.9.1. Made hoistway clearance requirements clearer		**SPS 318.1705 (3) (cc) 1 and 2.** Correct numbering to 5.3.1.9.1. (cc) This is a department rule in addition to the requirements in ASME A17.1 section 5.3.1.8.1: 1. The top of the car enclosure shall comply with the load requirements specified under ASME A17.1 section 2.14.1.6, except as specified in subd. 2. 2. A car enclosure shall be permitted to have a top that is not load bearing provided the top of the car enclosure is not needed to be accessed to service, maintain, or inspect any part of the elevator equipment and contains a sign meeting ANSI Z535.4 or its equivalent indicating the car top is not load bearing.
5.3.1.9	Renumbered to 5.3.1.10		No comment
5.3.1.9.1 (f)	Renumbered to 5.3.1.10.1. Added requirement for car top access where bodily entry is required		No comment
5.3.1.9.2 (a)	Renumbered to 5.3.1.10.2. Changed requirements for power door closing		No comment
5.3.1.9.2 (c) - (d)	Renumbered to 5.3.1.10.2. Updated references		No comment

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment
5.3.1.14	Renumbered to 5.3.1.15		**SPS 318.1705 (3) (cr).** Correct numbering to 5.3.1.15. (cr) This is a department rule in addition to the requirements in ASME A17.1 section 5.3.1.14: Where the hoistway ends above an occupiable area, the floor below the car and counterweight must have sufficient strength to withstand, without failure, the impact of the car with rated load and counterweight descending at 125% of rated speed or governor tripping speed if a governor is provided.
5.3.1.16	Renumbered to 5.3.1.17.2		**SPS 318.1705 (3) (cw).** Does the new 5.3.1.7.3 allow us to remove this from SPS 318? See note above for 5.3.1.7.3. (cw) This is a department rule in addition to the requirements in ASME A17.1 section 5.3.1.16: Rotating parts located outside of the hoistway for private residence elevators shall be enclosed with a solid or openwork enclosure. If the enclosure is openwork, the enclosure shall reject a ball 13 mm, or 0.5 in., in diameter. Means for inspection shall be provided. The openings may not be larger than is necessary to clear the rotating parts.
5.3.1.16.2 (b) (3)	Renumbered to 5.3.1.17.2(b)(3). Changed factor of safety requirements to meet 2.24.3 instead of listing them here		No comment
5.3.1.16.2 (i) (2)	Renumbered to 5.3.1.17.2(i)(2). Manual operation cannot release the brake, however SPS 318 changes that		**SPS 318.1705 (3) (d).** Correct numbering to 5.3.1.17.2 (i) (2). (d) The requirements in ASME A17.1 section 5.3.1.16.2(i)(2) are not included as part of this chapter.
5.3.1.19.2.3	New requirements for monitoring hoistway door locking device contacts. When hoistway door locking device contacts are opened, elevator personnel must manually reset the controller **5.3.1.19.2.3 Monitoring the Hoistway Door Locking Device Contacts.** While in the normal operating condition, the controller shall monitor the hoistway door locking device closed and locked contacts. If both the closed and locked contacts are opened while the car is not in the unlocking zone for that locking device, the controller shall remove the power from the motor and brake or hydraulic machine. The car shall not be permitted to restart until the door locking device contacts have been returned to the normal operating position and the controller has been manually reset by elevator personnel.		Will this cause entrapments that may take hours to resolve while waiting for elevator personnel to arrive?
5.3.1.19.9	New requirements for a Remote Operation Indicator the controls to have a device to convey information about the elevator movement and position if the drive sheave, sprocket or suspension means are not visible form the location of the controller.		This is a significant change
5.3.1.20	Residential elevator communications.		**SPS 318.1705 (3) (e)** Remove to require a telephone in the elevator (e) Substitute the following wording for the requirements in A17.1 section 5.3.1.19: The elevator shall be provided with a hard-wired telephone or a telephone utilizing wireless, cellular, or other technology capable of operating at all points of elevator travel. The telephone shall be available in the elevator, charged if battery powered, and operational any time the elevator is in use. If the telephone is not a hard-wired land line type, the elevator shall include a sign informing riders that a telephone is required to be present while operating the elevator. **Note:** *Accessible and Usable Buildings and Facilities, ICC A117.1*, Section 409 for private residence elevators standards is applicable in commercial buildings, under the incorporation of the International Building Code® in chs. SPS 361 to 366.
ELEVATORS USED DURING CONSTRUCTION			

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SECTION	TEXT	TEXT	DSPS Comment
5.10.1.21.2.	Elevators used in construction		SPS 318.1705 (4) No changes **(4)** ELEVATORS USED FOR CONSTRUCTION. This is a department rule in addition to the requirements in ASME A17.1 section 5.10.1.21.2: All elevators shall have an assigned operator while in use.

CODE SECTION	2002a TEXT	2003b TEXT	2004 TEXT	2005a TEXT	2005-S TEXT	2007 TEXT	2016 TEXT	2019 TEXT	2022 TEXT	DSPS comments
6.1.3.3.6								**6.1.3.3.6 Skirt Panels.** **(a)** ... **(b)** the skirt panels design and installation shall not permit deflection more than 1.6 mm (0.06 in.) under a force of 670 N (150 lbf) **(c)** ... (d) Skirt Deflection Test and Marking/Labeling. Each skirt panel design shall be tested for deflection with load per 6.1.3.3.6(b) as described in 8.3.XX. Skirt panels shall be marked with the part number or identifying mark and be marked/labeled with the following: "Replacement shall meet OEM and A17.1/B44 Code requirements".		No comment
6.1.3.3.11								**6.1.3.3.11** (a) On high deck balustrades, a solid guard shall be provided in the intersection of the angle of the outside balustrade deck and the ceiling or soffit, under the following conditions: (1) where the clearance between the outside edge of the deck and the ceiling or soffit is 300 mm (12 in.) or less; or (2) where the projected intersection of the outside deck and the ceiling or soffit is 600 mm (24 in.) or less from the centerline of the handrail. (b) On low deck balustrades, a solid guard shall be provided to protect the intersection formed by the top of the handrail and the plain of the ceiling or soffit where the centerline of the handrail is 350 mm (14 in.) or less from the ceiling or soffit. (c) The vertical edge of the guard shall be a minimum of 350 mm (14 in.) in length. (d) The escalator side of the vertical face of the guard shall be flush with the face of the wellway. (e) The exposed edge of the guard shall present a minimum width of 25 mm (1 in.) and a minimum radius of 12 mm (0.5 in.). (f) Guards are permitted to be of glass or plastic, provided they meet the requirements of 6.1.3.3.3. See also Nonmandatory Appendix I, Fig. I-5.	**6.1.3.3.11** (a) On high deck balustrades, a solid guard shall be provided in the intersection of the angle of the outside balustrade deck and the ceiling or soffit, under the following conditions: (1) where the clearance between the outside edge of the deck and the ceiling or soffit is 300 mm (12 in.) or less; or (2) where the projected intersection of the outside deck and the ceiling or soffit is 600 mm (24 in.) or less from the centerline of the handrail. (b) On low deck balustrades, a solid guard shall be provided to protect the intersection formed by the top of the handrail and the plain of the ceiling or soffit where the centerline of the handrail is 350 mm (14 in.) or less from the ceiling or soffit. (c) The vertical edge of the guard shall be a minimum of 350 mm (14 in.) in length. (d) The escalator side of the vertical face of the guard shall be flush with the face of the wellway. (e) The exposed edge of the guard shall present a minimum width of 25 mm (1 in.) and a minimum radius of 12 mm (0.5 in.). (f) Guards are permitted to be of glass or plastic, provided they meet the requirements of 6.1.3.3.3. See also Nonmandatory Appendix I, Fig. I-5, I-7 and I-8.	No comment
6.1.3.4.5								**6.1.3.4.5 Vertical Height.** The vertical height from step nose to top of handrail shall be not less than 900 mm (35 in.) nor more than 1000 mm (39 in.). See 6.1.1 for floor opening protection adjacent to escalator wellways.	**6.1.3.4.5 Vertical Height.** The vertical height from step nose to top of handrail shall be not less than 900 mm (35 in.) nor more than 1100 mm (43 in.) ~~1000 mm (39 in.)~~. See 6.1.1 for floor opening protection adjacent to escalator wellways.	Significant change, this will make it harder for children to hold the handrail
6.1.3.9.1								**6.1.3.9.1 Structural**. For the purpose of structural design, the rated load shall be considered to be ~~not less than~~ the following...		No comment
6.1.3.9.2								**6.1.3.9.2 Machinery** **(a)** For the purpose of driving machine and power transmission calculations, the rated load for all single driving machines shall be considered to be ~~not less than~~ the following:.... **(b)** The rated load per module for two or more modular driving machines shall be considered to be the ~~not less than~~ following:....		No comment
6.13.9.3								**6.1.3.9.3 Brake** **(a)** For the purpose of brake calculations, the rated load for all single driving machines shall be considered to be ~~not less than~~ the following:..... **(b)** The rated load per module for two or more modular driving machines shall be considered to be ~~not less than~~ the following:.....		No comment
6.1.3.3.10	**6.1.3.3.10 Anti-Slide Devices. REVISED** FOR CLARIFICATION OF DISTANCE /LOCATION. On high deck balustrades, anti-slide devices shall be provided on decks or combinations of decks when the outer edge of the deck is greater than 200 mm (8 in.) from the edge of the handrail, or on adjacent escalators when the unobstructed distance between the edge of the facing handrail is greater than 300 mm (12 in.). These devices shall consist of raised objects fastened to the decks, no closer than 100 mm (4 in.) to the handrail nor greater than 300 mm (12 in.) from the handrail. They shall be spaced no greater than 2 000 mm (78 in.) apart as measured on a line parallel to the direction of travel and no greater than 300 mm (12 in.) as measured on a horizontal line perpendicular to the direction of travel. The height shall be no less than 50 mm (2 in.). There shall be no sharp corners or edges. See Appendix I, Fig. **I2.** REVISED FOR CLARIFICATION OF DISTANCE/LOCATION.							**6.1.3.10 Design Factors of Safety.** Factors of safety are based on either single driving-machine design or modular driving-machine design ~~The factors of safety~~ and shall comply with those stated in 6.1.3.10.1 through 6.1.3.10.4.		No comment
6.1.3.10.2								**6.1.3.10.2** For driving-machine parts, the factors of safety shall be as follows, based on loads ~~not less than those~~ lifting the Machinery Rated Load calculated per 6.1.3.9.2, including all applicable system losses and any other imposed loads: **(a)** not less than 8 where the parts are made of steel or bronze **(b)** not less than 10 where the parts are made of cast iron or other materials		No comment
6.1.3.10.3								**6.1.3.10.3** For power transmission members, the factor of safety shall be not less than 10, based on ~~not less than the~~ lifting the Machinery Rated Load calculated per 6.1.3.9.2, including all applicable system losses and any other imposed loads.		No comment
6.1.3.10.4								**6.1.3.10.4** For steps, the factor of safety shall be ~~based on~~ not less than 5, based on the loads designated in 6.1.3.9.4.		No comment
6.1.3.12								**6.1.3.12 Headroom.** The minimum headroom height shall be 2130 mm (84 in.) measured vertically from the step noseline ~~landing plates~~, and the landings. The headroom width shall be not less than the width of the safety zone (6.1.3.6.4). The length and width of the clear headroom space shall align with the length and width of the escalator, including the safety zone.		No comment
6.1.3.5.3.1								**6.1.5.3.1 Escalator Driving Machine Brake** **a)** ...There shall be no intentional time delay designed into the application of the brake, except as permitted in 6.1.5.3.4 (b).		Escalator dynamic braking is a safety and control system that uses the driving motor to generate braking force, converting kinetic energy into heat through resistors when stopping or slowing down. This method improves safety by ensuring consistent, smooth stops regardless of load, preventing "freewheeling," and reducing passenger falls by eliminating sudden, violent braking. Elevator World +5 **Key Aspects of Escalator Dynamic Braking:** • **Mechanism:** When the escalator needs to stop (e.g., emergency button, safety circuit trigger), the controller switches the AC motor to act as a generator. The generated electrical energy is dissipated as heat, typically through dynamic braking resistors (DBRs), enabling controlled deceleration. • **Safety Improvement:** Dynamic braking bridges the gap between the activation of a stop command and the mechanical engagement of the brake. This eliminates "freewheeling," which is the brief period where a loaded escalator (especially moving downward) might overspeed before the main brake engages. • **Constant Performance:** Unlike pure mechanical brakes, which can feel different depending on the load, dynamic braking provides a consistent stopping distance whether the escalator is empty or fully loaded. • **Energy Management:** In systems using Variable Frequency Drives (VFDs), dynamic braking manages the high voltage generated back to the DC link when slowing down. • **Compliance & Reliability:** Modern safety codes, such as EN 115, recognize dynamic braking as an effective way to control deceleration and ensure safety, often providing the necessary redundancy for braking systems. Elevator World +4 This system is crucial in modern, heavily trafficked units to ensure passenger safety and reduce wear on traditional mechanical brakes.
6.1.3.5.3.3								**6.1.5.3.3** Escalator driving-machine brakes and motor controlled dynamic braking systems shall be certified to the requirements of 8.3.1 and 8.3.6.		
6.1.3.5.3.4								**6.1.5.3.4 Escalator Driving Machine Motor Controlled Dynamic Braking.** Motor controlled dynamic braking of an escalator by variable frequency control of the escalator driving machine motor shall be permitted provided that: a) The motor controlled dynamic braking function conforms to acceleration requirements in 6.1.5.3.1(c) and, where applicable, the stopping distance requirements in 6.1.5.3.1(d) (5). b) The escalator driving machine brake complying with 6.1.3.9.3 and 6.1.5.3.1 shall be provided and is applied not later than when the escalator has stopped. Interruption of electrical power to the escalator or machine motor shall automatically cause application of the machine brake. c) Activation of electrical protective devices that do not specifically permit dynamic braking shall stop the escalator only by the removal of electrical power from the driving machine motor and brake. d) Stopping performance shall be monitored in conformance with 6.1.6.10 throughout the retardation period at intervals not greater than 25 ms and shall cause the removal of electrical power from the driving machine motor and brake if the deceleration is not conforming to the requirements in 6.1.5.3.1 (c) or it is determined that the stopping rate will not result in a stopping distance conforming to the requirements of 6.1.5.3.1(d)		
6.1.5.3.1								**6.1.5.3.1 Escalator Driving-Machine Brake** (d) The escalator brake shall be provided with a data plate conforming to 8.13 that is readily visible and located on the machine brake, and when necessary, a duplicate data plate with the certification mark shall be placed adjacent to the machine brake. The data plate shall indicate ...	**6.1.5.3.1 Escalator Driving-Machine Brake** (d) The escalator brake shall be provided with a data plate conforming to 8.13 that is readily visible and located on the machine brake, and when necessary, a duplicate data plate with the certification mark shall be placed adjacent to the machine brake. The data plate shall indicate ...	

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6.1.5.3.2								**6.1.5.3.2 Main Drive Shaft Brake.** If the escalator driving-machine brake is separated from the main drive shaft by a chain used to connect the driving machine to the main drive shaft, , a mechanically or magnetically applied brake capable of stopping a down-running escalator with brake rated load (see 6.1.3.9.3) shall be provided on the main drive shaft. If the brake is magnetically applied, a ceramic permanent magnet shall be used.	**6.1.5.3.2 Main Drive Shaft Brake.** If the escalator driving-machine brake is separated from the main drive shaft by a chain used to connect the driving machine to the main drive shaft, or has a rise greater than 6.09 m (20 ft), a mechanically or magnetically applied brake capable of stopping a down-running escalator with brake rated load (see 6.1.3.9.3) shall be provided on the main drive shaft. The brake shall stop the escalator at an average rate not greater than 0.91 m/s² (3 ft/s²) as measured over the total retardation time. **If the brake is magnetically applied,** a ceramic permanent magnet shall be used. The brake shall be applied upon activation of any of the following electrical protective devices:	No comment
6.1.5.3.5									**6.1.5.3.5 Auxiliary Brake.** Escalators not utilizing dynamic braking (6.1.5.3.4) and with a rise greater than 6.09 m (20 ft) shall be equipped with an auxiliary brake that complies with brake requirements in 6.1.5.3.1. Application of the auxiliary brake shall be caused only by: a) Activation of the Escalator Speed Monitoring Device (6.1.6.3.2) or b) Activation of the Drive Chain Device if the auxiliary brake is located on the main shaft and utilized to also function as a Main Drive Shaft Brake (6.1.5.3.2) when a Main Drive Shaft brake is required. c) Where simultaneous application of the driving machine brake and auxiliary brake occur, requirement 6.1.5.3.1 (c) does not apply.	No comment
6.1.6.3.2									**6.1.6.3.2 Escalator Speed-Monitoring Device.** An escalator speed-monitoring device shall be provided. (a) The operation of the device shall cause the electric power to be removed from the driving-machine motor and brake should the speed exceed the rated speed by more than 20%. (b) The device shall be of the manual-reset type. The operation of the device shall also cause electric power to be removed from an auxiliary brake when provided.	No comment
6.1.6.3.1 (a)						**6.1.6.3.1 Emergency Stop Buttons** **REVISED** - TO CLARIFY NBCC REQS. (a) Location. In jurisdictions not enforcing NBCC, a red stop button shall be visibly located at the top and the bottom landings on the right side facing the escalator. Remote stop buttons are prohibited. In jurisdictions enforcing NBCC, a red stop button shall be visibly located at the top and the bottom landings on the right side facing the escalator. If auxiliary emergency-stop buttons are provided, they shall be located within view of the escalator.		**6.1.6.3.1 Emergency Stop Button** **(a) Location.** A red stop button shall be visibly located at the top and the bottom landings on the right side facing the escalator. In jurisdictions not enforcing NBCC, remote stop buttons are prohibited. In jurisdictions enforcing NBCC, if remote buttons are provided, they shall be located ~~within view of the escalator~~ such that the exposed escalator steps are within sight from the stop button location.		Coordinate with new signage requirement in SPS 318
6.1.6.3.1 (c)								**6.1.6.3.1 Emergency Stop Buttons** **(c) Operation.** The operation of either of these buttons shall cause initiation of dynamic braking (6.1.5.3.4) or the electric power to be removed from the escalator driving-machine motor and brake. It shall not be possible to start the escalator by these buttons		No comment
6.1.6.3.3								**6.1.6.3.3 Broken Step-Chain Device** **(a)** A broken step-chain device shall be provided, which shall cause initiation of dynamic braking (6.1.5.3.4) or the electric power to be removed from the driving-machine motor and brake.		No comment
6.1.6.3.4			**6.1.6.3.4 Drive-Chain Device. REVISED** - FOR CLARITY. When the driving machine is connected to the main drive shaft by a chain, a device shall be provided that will cause the application of the brake on the main drive shaft, and will also cause the electric power to be removed from the driving machine motor and brake if the drive chain between the machine and the main drive shaft becomes disengaged from the sprockets. The device shall be of the manual reset type.						**6.1.6.3.4 Drive-Chain Device.** When the driving machine is connected to the main drive shaft by chain, a device shall be provided that will cause the application of the brake on the main drive shaft, if so equipped [see 6.1.5.3.2(a) and 6.1.5.3.5(b)], and will also cause the electric power to be removed from the driving-machine motor and brake if any drive chain between the machine and the main drive shaft becomes disengaged from the sprockets. The device shall be of the manual-reset type.	No comment
6.1.6.3.6			**6.1.6.3.6 Escalator Skirt Obstruction Device. REVISED** - TITLE. Means shall be provided to cause the electric power to be removed from the escalator driving-machine motor and brake if an object becomes caught between the step and the skirt as the step approaches the upper or lower combplate. The device shall be located at a point at which the step assumes a flat step position (see 6.1.3.6.5). The escalator shall stop before that object reaches the combplate with any load up to full brake rated load with escalator running [see 6.1.3.9.3(a)(2) and (b)(2)].						**6.1.6.3.6 Escalator Skirt Obstruction Device.** Means shall be provided to cause initiation of dynamic braking (6.1.5.3.4) or the electric power to be removed from the escalator driving-machine motor and brake if an object becomes caught.		No comment
6.1.6.3.7								**6.1.6.3.7 Escalator Egress Restriction Device.** Egress restrictors that would prevent the free and continuous exiting of passengers, if used, shall provide a signal to a device on the escalator that shall cause initiation of dynamic braking (6.1.5.3.4) or the electric power to be removed from the escalator driving machine motor and brake when the exit restrictors begin to close.		No comment
6.1.6.3.9			**6.1.6.3.9 Step Upthrust Device.** **REVISED** - TO IDENTIFY OBSTRUCTION. Means shall be provided in the passenger-carrying line of the track system to detect a step forced upward in the lower transition curve at or prior to the point of tangency of the horizontal and curved track. The means shall actuate when the riser end of the step is displaced upward more than 5 mm (0.20 in.) at the lower landing. Actuation of the means shall cause power to be removed from the driving-machine motor and brake. The escalator shall stop, before the detected step reaches the combplate with any load up to brake rated load with escalator running [see 6.1.3.9.3(a)(2) and (b)(2)].						**6.1.6.3.9 Step Upthrust Device.** Means shall be provided in the passenger-carrying line of the track system to detect a step forced upward in the lower transition curve at or prior to the point of tangency of the horizontal and curved track. The means shall actuate when the riser end of the step is displaced upward more than 5 mm (0.20 in.) at the lower landing. Actuation of the means shall cause initiation of dynamic braking (6.1.5.3.4) or the electric power to be removed from the driving-machine motor and brake		No comment

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6.1.6.3.11								**6.1.6.3.11 Step Level Device.** Step level devices shall be located at the top and bottom of the escalator. These devices shall detect downward displacement of 3 mm (0.125 in.) or greater at the riser end at either side of the step. When activated, the device shall cause the escalator to stop before the step enters the combplate. The device shall cause initiation of dynamic braking (6.1.5.3.4) or the electric power to be removed from the driving-machine motor and brake. Devices shall be of the manual-reset type.		No comment
6.1.6.3.12								**6.1.6.3.12 Handrail Entry Device.** A handrail entry device shall be provided at each newel. It shall be operative in the newels in which the handrail enters the balustrade. ~~It shall~~ Activation of the device shall cause initiation of dynamic braking (6.1.5.3.4) or the escalator to stop by removing electric power to be removed from the driving-machine motor and brake.		No comment
6.1.6.3.13								**6.1.6.3.13 Comb-Step Impact Devices.** Devices shall be provided that will cause the opening of the power circuit to the escalator driving-machine motor and brake if either (a) a horizontal force not greater than 1 780 N (400 lbf) in the direction of travel is applied at either side, or not greater than 3 560 N (800 lbf) at the center of the front edge of the combplate (b) a resultant vertical force not greater than 670 N (150 lbf) in the upward direction is applied at the center of the front of the combplate These devices shall be the manual-reset type.	**6.1.6.3.13 Comb-Step Impact Devices.** Devices shall be provided that will cause the opening of the power circuit to the escalator driving-machine motor and brake if either (a)a horizontal force not greater than 1 780 N (400 lbf) in the direction of travel is applied at either side, or not greater than 3 560 N (800 lbf) at the center of the front edge of the combplate or (b)a resultant vertical force not greater than 670 N (150 lbf) in the upward direction is applied at the center of the front of the combplate These devices shall be the manual-reset type.	No comment
6.1.6.3.14								**6.1.6.3.14 Step Lateral Displacement Device**. A device shall be provided on curved escalators to cause initiation of dynamic braking (6.1.5.3.4) or the opening of the circuit to the electric power to be removed from the escalator driving machine motor and brake,		No comment
6.1.6.3.16			**6.1.6.3.16 Dynamic Skirt Panel Obstruction Device. ADDED-** Means shall be provided to cause the electric power to be removed from the escalator driving-machine motor and brake if an object becomes caught between the dynamic skirt panel and the dynamic skirt panel cover in the upper or lower transition zone. The device shall be of the manual-reset type.					**6.1.6.3.16 Dynamic Skirt Panel Obstruction Device.** Means shall be provided to cause initiation of dynamic braking (6.1.5.3.4) or the electric power to be removed from the escalator driving machine motor and brake if an object becomes caught…		No comment
6.1.6.4								**6.1.6.4 Handrail Speed Monitoring Device.** A handrail speed monitoring device shall be provided that will cause the activation of the alarm required by 6.1.6.3.1(b) without any intentional delay, whenever the speed of either handrail deviates from the step speed by 15% or more. The device shall also cause initiation of dynamic braking (6.1.5.3.4) or electric power to be removed from the driving-machine motor and brake when the speed deviation of 15% or more is continuous within a 2 s to 6 s range. The device shall be the manual reset type, or it shall be permitted to automatically reset not more than one time within 24 h of operation and thereafter require a manual reset before the next restart. Interruption of power during operation should not cause the device to lose the status of the timer nor the count of events.	**6.1.6.4 Handrail Speed-Monitoring Device.** A handrail speed-monitoring device shall be provided that will cause the activation of the alarm required by 6.1.6.3.1(b) without any intentional delay, whenever the speed of either handrail deviates from the step speed by 15% or more. The device shall also cause initiation of dynamic braking (6.1.5.3.4) or electric power to be removed from the driving-machine motor and brake when the speed deviation of 15% or more is continuous within a 2 s to 6 s range. The device shall be the manual reset type, or it shall be permitted to automatically reset not more than one time within 24 h of operation and thereafter require a manual reset before the next restart. Interruption of power during operation ~~should~~ shall not cause the device to lose the status of the timer nor the count of events.	No comment
6.1.6.5			**6.1.6.5 Missing Step and Missing Dynamic Skirt Devices REVISED - TO INCLUDE DYNAMIC SKIRT** (a) A device shall be provided to detect a missing step and bring the escalator to a stop, before the gap resulting from the missing step emerges from the comb. The device shall cause power to be removed from the driving-machine motor and brake. The device shall be of the manual-reset type. (b) For escalators with dynamic skirts, a device shall be provided to detect a missing dynamic skirt panel and bring the escalator to a stop, before the gap resulting from the missing dynamic skirt panel emerges from the balustrade. The device shall cause power to be removed from the driving-machine motor and brake. The device shall be of the manual-reset type.					**6.1.6.5 Missing Step and Missing Dynamic Skirt Devices** **(a)** A device shall be provided to detect a missing step and bring the escalator to a stop, before the gap resulting from the missing step emerges from the comb. The device shall cause initiation of dynamic braking (6.1.5.3.4) or power to be removed from the driving-machine motor and brake. The device shall be of the manual-reset type. **(b)** For escalators with dynamic skirts, a device shall be provided to detect a missing dynamic skirt panel and bring the escalator to a stop, before the gap resulting from the missing dynamic skirt panel emerges from the balustrade. The device shall cause initiation of dynamic braking (6.1.5.3.4) or power to be removed from the driving-machine motor and brake. The device shall be of the manual-reset type.		No comment
6.1.6.6								**6.1.6.6 Tandem Operation.** Tandem operation escalators shall be electrically interlocked where traffic flow is such that bunching will occur if the escalator carrying passengers away from the intermediate landing stops. The electrical interlocks shall ~~stop~~ cause initiation of dynamic braking (6.1.5.3.4) or power to be removed from the driving-machine motor and brake of the escalator carrying passengers into the common intermediate landing if the escalator carrying passengers away from the landing stops. These escalators shall also be electrically interlocked to assure that they run in the same direction.		No comment
6.1.6.8								**6.1.6.8 Escalator Smoke Detectors.** Smoke detectors shall be permitted that shall activate the alarm required by 6.1.6.3.1(b) and, after at least 15 s, shall cause initiation of dynamic braking (6.1.5.3.4) or power to be removed from ~~the interruption of power to~~ the driving-machine motor and brake.		No comment
6.1.6.10.4								**6.1.6.10.4** Escalators with driving-machine motors employing static control shall conform to the following: **(a)** Two devices shall be provided to remove power from the driving- machine motor. At least one device shall be an electromechanical contactor. **(1)** The contactor shall be arranged to open each time the escalator stops. **(2)** The contactor shall cause the removal of power from the driving- machine brake in accordance with 6.1.6.3.4. **(b)** An additional contactor shall be provided to also open the driving- machine brake circuit. This contactor is not required to have contacts in the driving-machine motor circuit. **(c)** The electrical protective devices required by 6.1.6.3 shall control the solid-state device and both contactors, or the dynamic braking (see 6.1.5.3.4) as permitted. **(d)** After each stop of the escalator, the escalator shall not respond to a signal to start unless both contactors [see 6.1.6.10.4(a) and (b)] are in the de-energized position.		No comment

CODE SECTION	2002a TEXT	2003b TEXT	2004 TEXT	2005a TEXT	2005-S TEXT	2007 TEXT	2016 TEXT	2019 TEXT	2022 TEXT	DSPS comments
6.1.6.11			**6.1.6.11 Electrically Powered Safety Devices. REVISED** - TO INCLUDE DYNAMIC SKIRT. If the handrail speed monitoring device required by 6.1.6.4, the missing step or missing skirt device, required by 6.1.6.5, or any electrical protective device required by 6.1.6.3, requires electrical power for its functioning: (a) a loss of electrical power to the device shall cause power to be removed from the escalator driving machine motor and brake (b) the occurrence of a single ground or the failure of any single magnetically operated switch, contactor or relay; or any single solid-state device; or a software system failure, shall not render the missing step or missing dynamic skirt devices or electrical protective device inoperative (c) when a single ground or failure as described in 6.1.6.11(b) occurs, the escalator shall not be permitted to restart					**6.1.6.11 Electrically Powered Safety Devices.** If the handrail speed monitoring device required by 6.1.6.4, the missing step or missing skirt device, required by 6.1.6.5, the stopping performance monitoring required by 6.1.5.3.4(d), or any electrical protective device required by 6.1.6.3, requires electrical power for its functioning **(a)** a loss of electrical power to the device shall cause power to be removed from the escalator driving machine motor and brake		No comment
6.1.6.11 (b)						**6.1.6.11 Electrically Powered Safety Devices. REVISED** - TO ADD HANDRAIL SPEED MONITORING DEVICE. (b) the occurrence of a single ground or the failure of any single magnetically operated switch, contactor, or relay; or any single solid-state device; or a software system failure, shall not render the missing step or missing dynamic skirt devices or handrail speed monitoring device or electrical protective device inoperative		**(b)** the occurrence of a single ground or the failure of any single magnetically operated switch, contactor, or relay; or any single solid-state device; or a software system failure, shall not render the missing step or missing dynamic skirt devices or handrail speed monitoring device or stopping performance monitor or electrical protective device inoperative **(c)** when a single ground or failure as described in 6.1.6.11(b) occurs, the escalator shall not be permitted to restart.		No comment
6.1.6.12								**6.1.6.12 Installation of Capacitors or Other Devices to Make Electrical Protective Devices Ineffective.** The installation of capacitors or other devices, the operation or failure of which will cause an unsafe operation of the escalator, is prohibited. No permanent device shall be installed, except as provided for in this Code, which will make any required electrical protective device ineffective. (See also 6.1.6.3.4.)	**6.1.6.12 Installation of Capacitors or Other Devices or Means to Make Electrical Protective Devices Ineffective.** The installation of capacitors or other devices, the operation or failure of which will cause an unsafe operation of the escalator, is prohibited. No permanent device shall be installed, except as provided for in this Code, which will make any required electrical protective device ineffective. (See also 6.1.6.3.4.)	No comment
6.1.6.13								**6.1.6.13 Completion or Maintenance of Circuit.** The completion or maintenance of an electric circuit shall not be used to stop the escalator when the emergency stop switch is opened or when any of the electrical protective devices operate. These requirements do not apply to speed control switches (see 6.1.6.3.2, 6.1.6.3.8, and 6.1.6.4) or to dynamic braking (6.1.5.3.4).		No comment
6.1.7.4.1								**6.1.7.4.1** All electrical equipment and wiring shall conform to NFPA 70 or CSA C22.1, whichever is applicable (see Part 9). In jurisdictions enforcing CSA C22.1, power supply-line disconnecting means shall not be opened automatically by a fire alarm system.	**6.1.7.4.1** All electrical equipment and wiring shall conform to NFPA 70 or CSA C22.1, whichever is applicable (see Part 9). In jurisdictions enforcing CSA C22.1, main line power ~~supply-line~~ disconnecting means shall not be opened automatically by a fire alarm system.	No comment
6.1.7.4.3		**6.1.7.4.3 REVISED** FOR CLARITY. Control equipment shall meet the requirements of EN 12016, ~~Part 2~~. When the control equipment is exposed to interference levels at the test values specified for "safety circuits" in EN 12016, the interference shall not cause any of the conditions described in 6.1.6.10.1(a) and (b). If enclosure doors or suppression equipment must remain installed to meet the above requirements, warning signs to that effect shall be posted on the control equipment.	**6.1.7.4.3 REVISED** - FOR CLARIFICATION. Control equipment shall be tested in accordance with the testing requirements of EN 12016 by exposing it to interference levels at the test values specified for "safety circuits." The interference shall not cause any of the conditions described in 6.1.6.10.1(a) and (b). If enclosure doors or suppression equipment must remain installed to meet the above requirements, warning signs to that effect shall be posted on the control equipment.				**6.1.7.4.3** Control equipment shall be tested in accordance with the testing requirements of ~~EN 12016~~, ISO 22200:2009. Control equipment tested in accordance with the testing requirements of EN 12016:1998 prior to one year after the effective date of this code need not be retested in accordance with the testing requirements of ISO 22200:2009. The control equipment shall be exposed ~~by exposing~~ it to interference levels at the test values specified for "safety circuits." The interference shall not cause any of the conditions described in 6.1.6.10.1(a) through (f). If enclosure doors or suppression equipment must remain installed to meet the above requirements, warning signs to that effect shall be posted on the control equipment.			
6.2.3.1								**6.2.3.1 Angle of Inclination.** The angle of inclination for the Treadway from the horizontal moving walk landing plate shall not exceed 3 deg within 900mm (36 in.) of the comb intersection line with the treadway at the entrance and egress ends and shall not exceed 12 deg at any point.	**6.2.3.1 Angle of Inclination.** The angle of inclination for the Treadway from the ~~horizontal~~ moving walk landing plate shall not exceed 3 deg within 900mm (36 in.) of the comb intersection line with the treadway at the entrance and egress ends and shall not exceed 12 deg from the horizontal at any point.	No comment
6.2.3.2.2								**6.2.3.2.2** The height of the balustrade shall be not less than 900 mm (35 in.) nor more than 1000 mm (39 in.) from the treadway to the top of the handrail, measured perpendicular to the treadway surface.	**6.2.3.2.2** The height of the balustrade shall be not less than 900 mm (35 in.) nor more than 1100 mm (43 in.) ~~1000 mm (39 in.)~~ from the treadway to the top of the handrail, measured perpendicular to the treadway surface.	Significant change, this will make it harder for children to hold the handrail
6.2.3.3.6								**6.2.3.3.6 Skirt Panels.** Where skirt panels are provided **(a)** ... **(b)** the skirt panels design and installation shall not permit deflection more than 1.6 mm (0.06 in.) under a force of 670 N (150 lbf) **(c)** ... (d) Skirt Deflection Test and Marking/Labeling. Each skirt panel design shall be tested for deflection with load per 6.2.3.3.6(b) as described in 8.3.XX. This panel shall be marked with the part number or identifying mark and be marked/labeled with the following: "Replacement shall meet OEM and A17.1/B44 Code requirements".		No comment
6.2.3.5.1								**6.2.3.5.1 Slotting of Treadway.** The treadway surface of each pallet shall be slotted in a direction parallel to its travel. Each slot shall be not more than 6.5 mm (0.25 in.) wide at the treadway surface and not less than 9.5 mm (0.375 in.) deep; and the distance from center to center of adjoining slots shall be not more than 9.5 mm (0.375 in.). Sides of the slots shall be permitted to slope for mold draft purposes and shall be permitted to be filleted at the bottom. Slots shall be located on each side of the pallet to form a cleat adjacent to the skirt panel. (See Nonmandatory Appendix I, Figure I-10.)	**6.2.3.5.1 Slotting of Treadway.** The treadway surface of each pallet shall be slotted in a direction parallel to its travel. Each slot shall be not more than ~~6.5~~ 8.4 mm (0.25 in.) wide at the treadway surface and not less than 9.5 mm (0.375 in.) deep; and the distance from center to center of adjoining slots shall be not more than 9.5 mm (0.375 in.). Sides of the slots shall be permitted to slope for mold draft purposes and shall be permitted to be filleted at the bottom. Slots shall be located on each side of the pallet to form a cleat adjacent to the skirt panel. (See Nonmandatory Appendix I, Figure I-10.)	No comment

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6.2.3.6.2								**6.2.3.6.2 Slotting of the Treadway.** The Treadway surface shall be slotted in a direction parallel to its travel for purposes of meshing with comblates at the landings. Each slot shall be not more than 6.4 mm (0.25 in.) wide at the treadway surface and not less than 4.8 mm (0.188 in.) deep, and the distance from center to center of adjoining slots shall be not more than 13 mm (0.50 in.). Sides of slots shall be permitted to slope for mold draft purposes and shall be permitted to be filleted at the bottom. Slots shall be located on each side of the belt to form a cleat adjacent to the skirt panel.	**6.2.3.6.2 Slotting of the Treadway.** The Treadway surface shall be slotted in a direction parallel to its travel for purposes of meshing with comblates at the landings. Each slot shall be not more than 6.4 mm (0.25 in.) wide at the treadway surface and not less than 4.8 mm (0.188 in.) deep, and the distance from center to center of adjoining slots shall be not more than 13 mm (0.50 in.). Sides of slots shall be permitted to slope for mold draft purposes and shall be permitted to be filleted at the bottom. Slots shall be located on each side of the belt to form a cleat adjacent to the skirt panel. (See Nonmandatory Appendix I, Figure I-10.)	No comment
6.2.3.10.1								**6.2.3.10.1 Structural.** For the purpose of structural design, the rated load shall be considered to be not less than the following: …….		No comment
6.2.3.10.2								**6.2.3.10.2 Machinery** **(a)** … **(b)** The rated load per module for two or more modular driving machines shall be considered to be not less than the following…		No comment
6.2.3.10.3								**6.2.3.10.3 Brake** **(a)** … **(b)** The rated load per module for two or more modular driving machines shall be considered to be not less than the following…		No comment
6.2.3.11								**6.2.3.11 Design Factors of Safety.** Factors of safety are based on either single driving-machine design or modular driving-machine design. ~~The factors of safety~~ and shall comply with those specified in 6.2.3.11.1 through 6.2.3.11.5.		No comment
6.2.3.11.1							**6.2.3.11.1** Trusses and all supporting structures, including tracks, shall conform to the ~~AISC Specifications for Design, Fabrication, and Erection of Structural Steel for Buildings,~~ ANSI/AISC 360-05 Specification for Structural Steel Buildings or the CSA Standard CAN/CSA-S16.1-09 Limit States Design of Steel Structures, whichever is applicable (see Part 9), based on the maximum static load calculated per 6.2.3.10.1.			
6.2.3.11.2								**6.2.3.11.2** For driving-machine parts, the factors of safety shall be as follows, based on ~~loads not less than those~~ lifting the machinery rated load calculated per 6.2.3.10.2, including all applicable system losses and any other imposed loads: **(a)** not less than **8** where parts are made of steel or bronze **(b)** not less than 10 where parts are made of cast iron or other materials		No comment
6.2.3.11.3								**6.2.3.11.3** For power transmission members, factor of safety shall be not less than 10, based on lifting the Machinery Rated ~~loads~~ Load calculated per 6.2.3.10.2, including all applicable system losses and any other imposed loads.10.2.		No comment
6.2.3.11.4								**6.2.3.11.4** For pallets, factor of safety shall be not less than 5, based on the loads designated in 6.2.3.10.4.		No comment
6.2.3.11.5								**6.2.3.11.5** For bells, factor of safety shall be not less than 5, based on lifting the Machinery Rated ~~loads~~ Load designated in 6.2.3.10.2.		No comment
6.2.3.15								**6.2.3.15 Headroom.** The minimum headroom height shall be 2130 mm (84 in.) measured vertically from the treadway surface ~~landing plates~~, and the landings. The headroom width shall be not less than the width of the safety zone (6.2.3.8.4). The length and width of the clear headroom space shall align with the length and width of the moving walk, including the safety zone.		No comment
6.2.5.3.1								**6.2.5.3.1** Moving Walk Driving Machine Brake **a)** …There shall be no intentional time delay designed into the application of the brake, except as permitted in 6.2.5.3.3 (b).		No comment
6.2.5.3.1 (d)				**6.2.5.3.1 (d) Moving Walk Driving-Machine Brakes** **REVISED** - CLARIFIES STOPPING DISTANCE. (d) The moving walk brake shall be provided with a data plate that is readily visible, located on or adjacent to the machine brake, and that indicates: (1) the range of brake torques in N·m (ft-lb) that complies with 6.2.5.3.1 (2) the method of measuring the torque, designated "BREAKAWAY" or "DYNAMIC," based on the method used when measuring the torque (3) the location where the torque is to be measured, e.g., "MOTOR SHAFT," "MACHINE INPUT SHAFT," "MAIN DRIVE SHAFT" (4) the minimum stopping distance with no load (5) the maximum stopping distance with rated load in the down direction that corresponds to the minimum distance between the comb and the pallet when the pallet is positioned to activate any of the electrical protective devices required in 6.2.6.3.9 or 6.2.6.5.		Add New 6.2.5.3.1(d)(5) to A17.1: **6.2.5.3.1(d)(5)** the maximum stopping distance with rated load that corresponds to the minimum distance between the comb and the pallet when the pallet is positioned to activate any of the safety devices required in 6.2.6.3.9 and 6.2.6.5.		**6.2.5.3.1 (d)** The moving walk brake shall be provided with a data plate conforming to 8.13 that is readily visible and located on the machine brake and, when necessary, a duplicate data plate with the certification mark shall be placed adjacent to the machine brake. The data plate shall indicate …	No comment
6.2.5.3.3								**6.2.5.3.3 Moving Walk Driving Machine Motor Controlled Dynamic Braking.** Motor controlled dynamic braking of a moving walk by variable frequency control of the escalator driving machine motor shall be permitted provided that: **a)** The motor controlled dynamic braking function conforms to acceleration requirements in 6.2.5.3.1(c) and, where applicable, the stopping distance requirements in 6.2.5.3.1(d)(5). **b)** The moving walk driving machine brake complying with ~~6.2.3.9.3~~ 6.2.3.10.3 and 6.2.5.3.1 shall be ~~provided and is~~ applied not later than when the moving walk has stopped. Interruption of electrical power to the moving walk or machine motor shall automatically cause application of the machine brake. **c)** Activation of electrical protective devices that do not specifically permit dynamic braking shall stop the moving walk only by the removal of electrical power from the driving machine motor and brake. **d)** Stopping performance shall be monitored in conformance with 6.2.6.9 throughout the retardation period at intervals not greater than 25 ms and shall cause the removal of electrical power from the driving machine motor and brake if the deceleration is not conforming to the requirements in 6.2.5.3.1 (c) or it is determined that the stopping rate will not result in a stopping distance conforming to the requirements of 6.2.5.3.1(d)(5), where applicable. Non-conformance shall require a manual reset.		No comment

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6.2.6.3.1 (a)						**6.2.6.3.1 Emergency Stop Buttons** **REVISED** - TO CLARIFY NBCC REQIREMENTS. (a) Location. In jurisdictions not enforcing NBCC, a red stop button shall be visibly located at the top and the bottom landings on the right side facing the escalator. Remote stop buttons are prohibited. In jurisdictions enforcing NBCC, a red stop button shall be visibly located at the top and the bottom landings on the right side facing the escalator. If auxiliary emergency-stop buttons are provided, they shall be located within view of the escalator.		**6.2.6.3.1 Emergency Stop Button** **(a) Location.** A red stop button shall be visibly located at the upper and the lower landings on the right side facing the moving walk. In jurisdictions not enforcing NBCC, remote stop buttons are prohibited. In jurisdictions enforcing NBCC, if remote buttons are provided, they shall be located ~~within view of the moving walk~~ such that the moving walk is visible from the stop button location.		No comment
6.2.6.3.1 (c)								**6.2.6.3.1 Emergency Stop Buttons** **(c) Operation.** The operation of either of these buttons shall cause initiation of dynamic braking (6.2.5.3.3) or the electric power to be removed from the moving walk driving-machine motor and brake. It shall not be possible to start the moving walk by these buttons.		No comment
6.2.6.3.3								**6.2.6.3.3 Broken Treadway Device.** A broken treadway device shall be provided that shall initiation of dynamic braking (6.2.5.3.3) or cause the electric power to be removed from the driving-machine motor and brake if the connecting means between the pallets or the belt breaks. The device shall be of the manual-reset type		No comment
6.2.6.3.6								**6.2.6.3.6 Moving Walk Egress Restriction Device.** Egress restrictors, if used, that would prevent the free and continuous exiting of passengers, shall provide a signal to a device on the moving walk that shall cause initiation of dynamic braking (6.2.5.3.3) or the electric power to be removed from the moving walk driving-machine motor and brake when the exit restrictors begin to close		No comment
6.2.6.3.8								**6.2.6.3.8 Disconnected Motor Safety Device.** If the drive motor is attached to a gear reducer by means other than a continuous shaft, mechanical coupling, or toothed gearing, a device shall be provided that will shall cause initiation of dynamic braking (6.2.5.3.3) or the electric power to be removed from the driving-machine motor and brake (see 6.2.5.3.1) if the motor becomes disconnected from the gear reducer. The device shall be of the manual-reset type	**6.2.6.3.8 Disconnected Motor Safety Device.** If the drive motor is attached to a gear reducer by means other than a continuous shaft, mechanical coupling, or toothed gearing, a device shall be provided that will shall cause ~~initiation of dynamic braking (6.2.5.3.3) or~~ the electric power to be removed from the driving machine motor and brake (see 6.2.5.3.1) if the motor becomes disconnected from the gear reducer. The device shall be of the manual reset type	No comment
6.2.6.3.9								**6.2.6.3.9 Pallet Level Device.** Moving walks equipped with pallets with trail wheels shall be provided with pallet level devices located at the top and bottom of the moving walk. These devices shall detect downward displacement of 3 mm (0.125 in.) or greater at either side of the trailing edge of the pallet. When activated, the device shall cause the moving walk to stop before the pallet enters the combplate. The device shall cause initiation of dynamic braking (6.2.5.3.3) or the power to be removed from the driving-machine motor and brake. Devices shall be of the manual-reset type.		No comment
6.2.6.3.10								**6.2.6.3.10 Handrail Entry Device.** A handrail entry device shall be provided at each newel. It shall be operative in the newels in which the handrail enters the balustrade. It shall cause the moving walk to stop by initiation of dynamic braking (6.2.5.3.3) or removing power from the driving-machine motor and brake. It shall operate in either of two ways…		No comment
6.2.6.3.11								**6.2.6.3.11 Comb-Pallet Impact Devices.** Devices shall be provided that will cause the opening of the power circuit to the moving walk driving-machine motor and brake if either (a) a horizontal force not greater than 1 780 N (400 lbf) in the direction of travel is applied at either side, or not greater than 3 560 N (800 lbf) at the center of the front edge of the combplate (b) a resultant vertical force not greater than 670 N (150 lbf) in the upward direction is applied at the center of the front of the combplate These devices shall be the manual-reset type.	**6.2.6.3.11 Comb-Pallet Impact Devices.** Devices shall be provided that will cause the opening of the power circuit to the moving walk driving-machine motor and brake if either (a)a horizontal force not greater than 1 780 N (400 lbf) in the direction of travel is applied at either side, or not greater than 3 560 N (800 lbf) at the center of the front edge of the combplate or (b)a resultant vertical force not greater than 670 N (150 lbf) in the upward direction is applied at the center of the front of the combplate. These devices shall be the manual-reset type.	No comment
6.2.6.4								**6.2.6.4 Handrail Speed Monitoring Device.** A handrail speed monitoring device shall be provided that will cause the activation of the alarm required by 6.2.6.3.1(b) without any intentional delay whenever the speed of either handrail deviates from the treadway speed by 15% or more. The device shall also cause initiation of dynamic braking (6.2.5.3.3) or electric power to be removed from the driving-machine motor and brake when the speed deviation of 15% or more is continuous within a 2 s to 6 s range. The device shall be of the manual-reset type or it shall be permitted to automatically reset not more than one time within 24 hr of operation and thereafter require a manual reset before the next restart. Interruption of power during operation should not cause the device to lose the status of the timer nor the count of events.	**6.2.6.4 Handrail Speed-Monitoring Device.** A handrail speed-monitoring device shall be provided that will cause the activation of the alarm required by 6.2.6.3.1(b) without any intentional delay whenever the speed of either handrail deviates from the treadway speed by 15% or more. The device shall also cause electric power to be removed from the driving-machine motor and brake when the speed deviation of 15% or more is continuous within a 2 s to 6 s range. The device shall be of the manual-reset type or it shall be permitted to automatically reset not more than one time within 24 hr of operation and thereafter require a manual reset before the next restart. Interruption of power during operation ~~should~~ shall not cause the device to lose the status of the timer nor the count of events.	No comment
6.2.6.5								**6.2.6.5 Missing Pallet Device**. …… The device shall cause initiation of dynamic braking (6.2.5.3.3) or power to be removed from the driving-machine motor and brake…		No comment
6.2.6.6								**6.2.6.6 Tandem Operation**. ……. The electrical interlocks shall stop cause initiation of dynamic braking (6.2.5.3.3) or power to be removed from the driving-machine motor and brake of the moving walk carrying passengers into the common intermediate landing if the moving walk carrying passengers away from the landing stops……		No comment
6.2.6.7								**6.2.6.7 Moving Walk Smoke Detectors.** Smoke detectors shall be permitted, which shall activate the alarm required by 6.2.6.3.1(b) and, after at least 15 s, shall cause initiation of dynamic braking (6.2.5.3.3) or power to be removed from ~~the interruption of power to~~ the driving machine motor and …		No comment
6.2.6.10.4								**6.2.6.10.4** Moving Walks with driving-machine motors employing static control shall conform to the following: **(a)** … **(c)** The electrical protective devices required by 6.2.6.3 shall control the solid-state device and both contactors, or the dynamic braking (see 6.2.5.3.3) as permitted. **(d)** …		No comment
6.2.6.11								**6.2.6.11 Electrically Powered Safety Devices.** If the handrail-speed monitoring device required by 6.2.6.4, the missing pallet device, required by 6.2.6.5, the stopping performance monitoring required by 6.2.5.3.3(d), or any electrical protective device required by 6.2.6.3, requires electrical power for its functioning **(a)** … **(b)** the occurrence of a single ground or the failure of any single magnetically operated switch, contactor, or relay; or any single solid-state device; or a software system failure, shall not render any of the following inoperative: ~~the missing pallet device or handrail speed monitoring device or stopping performance monitoring, or electrical protective device inoperative~~ (1) the missing pallet device (2) the handrail speed-monitoring device (3) the stopping performance monitor (4) the electrical protective device **(c)** ….		No comment
6.2.6.12								**6.2.6.12 Installation of Capacitors or Other Devices to Make Electrical Protective Devices Ineffective.** The installation of capacitors or other devices, the operation or failure of which will cause an unsafe operation of the moving walk, is prohibited. No permanent device shall be installed, except as provided for in this Code, which will make any required electrical protective device ineffective.	**6.2.6.12 Installation of Capacitors or Other Devices or Means to Make Electrical Protective Devices Ineffective.** The installation of capacitors or other devices, the operation or failure of which will cause an unsafe operation of the moving walk, is prohibited. No permanent device shall be installed, except as provided for in this Code, which will make any required electrical protective device ineffective.	No comment
6.2.6.13								**6.2.6.13 Completion or Maintenance of Circuit.** The completion or maintenance of an electric circuit shall not be used to stop the moving walk when the emergency stop switch is opened or when any of the electrical protective devices operate. These requirements do not apply to ~~electrically assisted braking or~~ speed control switches (see 6.2.6.3.2, 6.2.6.3.7, and 6.2.6.4) or to dynamic braking (6.2.5.3.3).		No comment

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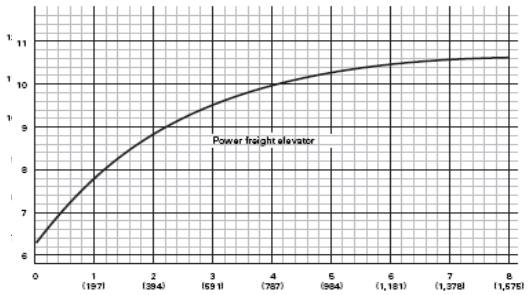
6.2.7.4.1								**6.2.7.4.1** All electrical equipment and wiring shall conform to NFPA 70 or CSA C22.1, whichever is applicable (see Part 9). In jurisdictions enforcing CSA C22.1, power supply-line disconnecting means shall not be opened automatically by a fire alarm system.	**6.2.7.4.1** All electrical equipment and wiring shall conform to NFPA 70 or CSA C22.1, whichever is applicable (see Part 9). In jurisdictions enforcing CSA C22.1, main line power ~~supply-line~~ disconnecting means shall not be opened automa- tically by a fire alarm system.	No comment

CODE SECTION	2019 TEXT	2022 TEXT	DSPS Comment
Scope	Hand dumbwaiters are now prohibited		**SPS 318.1707 (1)** If we agree with ending hand powered dumbwaiters, the title of SPS 318.1707 has to change. Not sure why hand dumbwaiters have become prohibited, especially in single family homes. Maybe they should not be regulated, but also not prohibited.
7.1 Opening para.	Removed Hand dumbwaiters		see above
7.1.10	Removed all references to Hand dumbwaiters		see above
7.1.11	Removed all references to Hand dumbwaiters		see above
7.1.11.5			**SPS 318.1707 (2)** There were no changes to this so the SPS requirement to have an electric contact on a machinery access door should remain.
7.1.11.8			**SPS 318.1707 (3)** There were no changes to this so the SPS requirement to have hoistway door vision panels should remain where position indicators are not provided.
7.1.12	Removed all references to Hand dumbwaiters		see above
7.2 Heading	Removed Hand dumbwaiters		see above
7.2.4.1		Changed to require a car safety device where only one suspension means is provided	no comment
7.2.6.1.1(a)		Added note to see 7.2.4.1 (above) regarding suspenions ropes or chains	no comment
7.2.6.7		Corrected section heading to be clear that suspension means monitoring or protection are not required	no comment
7.2.8		Added allowance for elastomeric bumpers	no comment
7.2.12		Added prohibition against remote interation operation	no comment
7.3.11.3.4(a)		Changed "power supply line disconnecting means" to "mainline power disconnecting means"	no comment
7.3.11.6		Changed "Inoperative" to "Ineffective"	no comment
7.4.9.3		Changed slightly Type A material lift machine rooms and spaces	no comment - Type A Material Lifts are not regulated
7.4.3	Added statement that glass hoistway construction is prohibited		no comment
7.4.4	Clarified that pits for Type B material lifts less than 24" deep are not required to meet 2.2		no comment
7.4.13.2	Removed allowance for hoistway openings to not meet 2.11.13.5. Must meet 2.11.13.5 for door strength.		no comment
7.5.1.1.7	Changed to require a car top railing for a Type B material lift that has a car top		no comment
7.5.2.6		Included Type A material lifts regarding platform deflection	no comment - Type A Material Lifts are not regulated
7.5.6.2		Changed chain strength measurement from rated breaking strength to ultimate tensile strength	no comment
7.5.6.6		Changed chain strength measurement from rated breaking strength to ultimate tensile strength	no comment
7.5.10	Moved (f) to new 7.5.10.2, no change		no comment
7.6.7	Changed terminal stopping devices to meet 3.25 for Type A hydraulic material lifts and 7.5.11.2 for Type B hydraulic material lifts		no comment
7.6.8.1(f)	Added allowance for 2.26.2.11 to not apply to operating devices and control equipment. Final terminal stopping devices are not required.		no comment

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
8.1			SPS 318.17081 Security. Keys access will be evaulated for installations on and after June 1, 2020 **SPS 318.17081 Security.** This is a department rule in addition to the requirements in ASME A17.1 section 8.1: Key access for installations after June 1, 2020, as specified in this section, shall be verified by the department or agent municipality.
8.1.2	**8.1.2 (p)** **(P)** Requirement 3.19.2.5, access to pressure gauge fittings.	**8.1.2 Group 1: Restricted** Group 1 covers access to or operation of equipment restricted to elevator personnel, ~~except as noted~~ except as indicated in (i) and (j) … (aa) Requirement 2.27.13.1(f), Flood Detection Operation reset means.	No comment
8.1.2 (z)	**8.1.2** … **(z)** Requirement 2.14.1.5.1(c) and 8.4.4.1, top emergency exit cover.		No comment
8.1.3	**8.1.3** … **(n)** Requirement 5.3.1.6.2 Controller Cabinet Door or Panel **(o)** Requirement 5.3.1.6.6 Access Doors and Openings		No comment
8.1.4		8.1.4 Group 3: Emergency Operation (a) Requirements 2.27.2.4.1 and 2.27.8, emergency or standby power ~~access~~ selector switch.	No comment
8.3	8.2.7 Minimum Factors of Safety of Suspension Members of Power Passenger and Freight Elevators  or (X)	**SECTION 8.3 - ENGINEERING TESTS, TYPE TESTS, AND CERTIFICATION** **(b)** engineering tests of … **(8)** cybersecurity for elevators as required in Section 8.14 (see 8.3.16)	No comment
8.3.3.1	**8.3.3.1 General.** This Section specifies the type tests of hoistway door interlocks, car door interlocks, combination mechanical locks and ~~electric contact~~ closed detection means, and hoistway door and car door or gate ~~electric contact~~ closed detection means		No comment
8.3.3.3.1	**8.3.3.3.1 Connections for and Test of Electrical Parts.** During the tests specified by 8.3.3.4.1, 8.3.3.4.3, and 8.3.3.4.4, the devices **(a)** with contacts meeting the requirements of 2.26.4.3.1 shall have their electrical parts connected in a noninductive electrical circuit having a constant resistance and in which a current of twice the rated current at rated voltage is flowing. The electric circuit shall be closed, but shall not be broken at the contact within the device on each cycle of operation during the tests. **(b)** that are SIL rated meeting the requirements of 2.26.4.3.2 shall be monitored for the duration of the tests. If the SIL rated device requires a SIL rated E/E/PES system for monitoring, it shall be provided and connected to the SIL rated device for monitoring the output. If the device output is an electrical contact, the output should be connected to a circuit at the maximum rated current and voltage in a typical load circuit. Documentation shall be made available for the typical connection, application, operation, monitoring, and rating for the SIL rated E/E/PES system.		No comment
8.3.3.3.2	**8.3.3.3.2 Retesting of Electric Contacts or SIL Rated Devices Previously Tested.** If the electric contact of a device or a SIL rated device submitted for type tests has already been tested as part of another device, and has successfully met the test requirements (see 8.3.3), the electrical tests of the electric contact or SIL rated device		No comment
8.3.3.4	**8.3.3.4 Required Tests and Procedure.** Each device submitted shall be subject to and shall successfully pass the ~~following~~ tests specified in 8.3.3.4.1 through 8.3.3.4.11, except that the electrical tests specified in 8.3.3.4.2 and 8.3.3.4.6 are not required for SIL rated devices meeting the requirements of 2.26.4.3.2 that do not have electrical contact outputs		No comment

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
8.3.3.4.2	**8.3.3.4.2 Current Interruption Test.** For devices containing contacts meeting the requirements of 2.26.4.3.1 and SIL rated devices meeting the requirements of 2.26.4.3.2 that have electrical contact outputs, the following shall apply: after completion of the test specified by 8.3.3.4.1, the device used therein shall satisfactorily complete the following additional tests, to check that the ability to break a live circuit is adequate. The tests shall be carried out with the locking device located in accordance with the manufacturer's drawings. If several positions are indicated, the test shall be made in the position that the laboratory judges to be the most unfavorable. The sample tested shall be provided with covers and electrical wiring in accordance with the manufacturer's drawings.		No comment
8.3.3.4.3	**8.3.3.4.3 Test Without Lubricant.** After completion of the test specified by 8.3.3.4.2 for electric contacts or SIL rated devices that have electrical contact output, or after completion of the test specified by 8.3.3.4.1 for SIL rated devices without electrical contact outputs, the device used therein shall be used for this test. The device, except self-lubricating bearings and bearings of a type not requiring frequent replenishment of lubricant, shall then be taken apart and freed of lubricant by washing in nonflammable liquids having cleansing characteristics. After reassembling, the device shall, without other than the usual initial adjustment (i.e., without adjustment especially made to meet the conditions of the particular test) and without further attention, complete 25 000 cycles or 20 000 cycles for private residence elevator of operation without failure of any kind, without excessive wearing or loosening of parts, and without undue burning or pitting of contacts where provided (see 8.3.3.3.1		No comment
8.3.3.4.6	**8.3.3.4.6 Insulation Test.** For devices containing contacts meeting the requirements of 2.26.4.3.1 and SIL rated devices meeting the requirements of 2.26.4.3.2 that have electrical contact outputs, the following shall apply; TThe insulation of the electrical parts shall withstand a test with a root-mean square (effective) voltage of twice the rated voltage plus 1000 V, 60 HZ, applied for 1 min		No comment
8.3.3.4.10	**8.3.3.4.10 Examination of Operation.** Verify that there is at least 7mm (0.28 in.) engagement of the interlock locking elements before the hoistway door interlock contact closes or the SIL rated device detects the locked position		No comment
8.3.3.4.11	**8.3.3.4.11 Testing of Electrical Contact Bridging or SIL Rated Device Detection Means.** The electrical contact bridging means shall be tested to verify conformance to 2.12.2.4.12. The SIL rated device closed and locked detection means shall be tested to verify conformance to 2.12.2.4.3		No comment
8.3.6	**8.3.6 Escalator Brake and Braking System Type Tests**		
8.3.6.1	**8.3.6.1 General.** Where required by 6.1.5.3.3, escalators shall be subjected to such tests as are necessary to certify that **(a)** the escalator machine brakes can be adjusted to conform to 6.1.5.3 **(b)** the relationship that exists between the range of machine brake settings and stopping distances complies with 6.1.5.3.1 **(c)** dynamic braking systems, if utilized, shall be verified to conform to 6.1.5.3.4		No comment
8.3.14	**8.3.14 Engineering Tests of Car Door Restrictors**		
8.3.14.1	**8.3.14.1 General.** This Section specifies the engineering test of car door restrictors.		No comment
8.3.14.2	**8.3.14.2 Examination Before Test.** Prior to testing, each device subject to engineering tests shall be examined to ascertain that it conforms to the applicable requirements in Part 2.		No comment
8.3.14.3	**8.3.14.3 Required Tests and Testing Procedures.**		No comment
8.3.14.3.1	**8.3.14.3.1 Endurance Test.** The device, lubricated in accordance with the manufacturer's instructions, shall complete 960,000 cycles of operation without failure of any kind, without excessive wearing or loosening of parts. This test shall not be required for car door restrictors that do not have moving parts.		No comment
8.3.14.3.2	**8.3.14.3.2 Test Without Lubricant.** After completion of the test specified by 8.3.14.3.1, the device used therein shall be used for this test. The device, except self-lubricating bearings and bearings of a type not requiring frequent replenishment of lubricant, shall then be taken apart and freed of lubricant by washing in nonflammable liquids having cleansing characteristics. After reassembling, the device shall, without other than the usual initial adjustment (i.e., without adjustment especially made to meet the conditions of the particular test) and without further attention, complete 25 000 cycles of operation without failure of any kind, without excessive wearing or loosening of parts. This test shall not be required for car door restrictors that do not have moving parts.		No comment

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8.3.14.3.3	**8.3.14.3.3 Test in Moist Atmosphere.** After completion of the test specified by 8.3.14.3.2, the device used therein shall be used for this test. The device shall be subjected continuously, in an unventilated enclosure, to an atmosphere saturated with a range of 3.5% to 5% solution of sodium chloride for 72 consecutive hours. During this period, it shall be operated for only 10 consecutive cycles at the end of each of the first two 24 h periods and shall be allowed to stand exposed to the air for 24 h, and shall not fail in a manner that creates an unsafe condition. The device shall again be lubricated and shall, without adjustment and without further attention, complete 15 000 cycles of operation without failure of any kind. This test shall not be required for car door restrictors that do not have moving parts.		No comment
8.3.14.3.4	**8.3.14.3.4 Static Test.** After completion of the endurance test in 8.3.14.3.1, an engineering test shall be made consisting of a static force of 1000 N (225 lbf) applied over a period of 300 s with the force increasing incrementally. The force shall be applied in the opening direction of the door and at a location as near to the restricting element as possible, but not to exceed 300 mm (12 in.).		No comment
8.3.15	**8.3.15 Skirt Deflection Test.** Skirt deflection tests required in 6.1.3.3.6(d) and 6.2.3.3.6(d) shall be performed as indicated in 8.3.15.1 through 8.3.15.5.		No comment
8.3.15.1	**8.3.15.1** The test shall be made at either the manufacturer's facility or at a testing laboratory.		No comment
8.3.15.2	**8.3.15.2** Skirt panels shall be mounted in an escalator or moving walk or in an arrangement that replicates the installed conditions of the skirt panel and supports. The maximum unsupported panel span utilized shall be determined and used in the test.		No comment
8.3.15.3	**8.3.15.3** A suitable force-displacement measuring device or devices shall be used to apply a distributed load over a round or square area not less than 1940 mm² (3 in.²) and not more than 3870 mm² (6 in.²) at a height identified by the manufacturer in the onsite documentation. The test load shall be placed in the location(s) that causes maximum skirt deflection. The test apparatus shall be arranged such that only the deflection of the skirt panel design being tested is measured. Testing shall not be done with any skirt deflector devices installed on the skirt panel being tested.		No comment
8.3.15.4	**8.3.15.4** Load force shall be incrementally applied until either the panel deflects 1.6 mm (0.063 in.) or the load force achieves 667 N (150 lb.). Reaching maximum deflection before achieving the test load force constitutes a failure.		No comment
8.3.15.5	**8.3.15.5** The documentation shall include the information required in 6.1.3.3.6(d) and the maximum permitted unsupported span.		No comment
8.3.16		**8.3.16 Engineering Test for Cybersecurity** An internet-connected or connectivity-enabled device interfaced (directly or indirectly) to an elevator controller or an elevator controller connected to the internet shall be tested to ensure conformance with the security level rating specified in 8.14.1(a)(1) and 8.14.1(a)(2) in accordance with the applicable requirements in IEC 62443-3-3 and IEC 62443-4-2.	No comment
8.4	**8.4** **(a)** ..... **(3)** The Product of the acceleration-based site coefficient and the ~~Design~~ Sspectral Rresponse Aacceleration for a 0.2 s time period [FaSa (0.2)] greater than 0.12 ~~and~~ for any building designated as a post-disaster building, or IEFaSa(0.2) equal to or greater than 0.35 as defined by NBCC-2005 or NBCC-2010 later (see Section 1.3, building code)	**8.4** **(a)**... **(3)** The product of the acceleration-based site coefficient and the spectral response acceleration for a 0.2 s time period [FaSa(0.2)] greater than 0.12 for any building designated as a post-disaster building, or IEFaSa(0.2) equal to or greater than 0.35 as defined by ~~NBCC-2005~~ or NBCC-2010 (see Section 1.3, building code) ~~**(4) Seismic Performance Category C with Seismic Hazard Exposure Group II or higher as defined by earlier model building codes (see Note)**~~ **(4)** Where IEFaSa(0.2) is equal to or greater than 0.35 as defined by NBCC-2015 (see Section 1.3, building code). If the building is seismically isolated or has supplemental energy dissipation systems, consult the engineer of record. **(5)** Seismic ~~risk zone 2 or greater~~Performance Category C with Seismic Hazard Exposure Group II or higher as defined by earlier model building codes (see Note). **(6)** Seismic risk zone 2 or greater as defined by earlier building codes (see Note). NOTE [8.4(a)(~~4~~5) and 8.4(a)(~~5~~6)]: For example, SBC 1982 or SBC 1994.	No comment - seismic
8.4.1.1		**8.4.1.1 Between Car and Counterweight and Counterweight ~~Screen~~ Guard.**	
8.4.1.1.3		**8.4.1.1.3** The running clearance between the counterweight assembly and the nearest obstruction, including counterweight ~~screens~~ guards, shall be not less than 25 mm (1 in.).	No comment - seismic

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8.4.5.1		**8.4.5.1 Location.** Upper and lower position restraints ~~attached to~~ shall be provided on both the car frame ~~shall be provided~~ and counterweight frame. The distance between the upper and lower position restraints shall be not less than the height of the car frame or counterweight frame. Separate position restraints are not required where such restraints are an integral part of the guiding member.	No comment - seismic
8.4.5.2.1		**8.4.5.2.1** ~~Position restraints and their attachments to car frames shall be designed to withstand a seismic force acting horizontally on the weight of the car plus 40% of its rated capacity as defined in 8.4.13 or 8.4.14 (with Wp = car weight + 40% capacity), or equal to~~ The design weight for ~~**(a)** 0.5Wp (zone 3 or greater)~~ **(a)** the counterweight shall be WP as specified in 8.4.15(a) ~~**(b)** 0.25Wp (zone 2)~~ **(b)** the car shall be WP as specified in 8.4.15(b)	No comment - seismic
8.4.5.2.2		**8.4.5.2.2** ~~When the car is centrally located between its guide rails and the platform is level, the clearance between each running face of the guide rail and the position restraint shall not exceed 5 mm (0.187 in.), and the depth of engagement with the rail shall be not less than the dimension of the side running face of the rail.~~ Position restraints and their attachments to car frames or counterweight frames shall withstand one of the following horizontal seismic forces: **(a)** 0.5Wp (for zone 3 or greater) **(b)** 0.25Wp (for zone 2) **(c)** Fp as defined in 8.4.14 **(d)** component force levels as defined in 8.4.13	No comment - seismic
8.4.5.2.3		**8.4.5.2.3** When the car is centrally located between its guide rails and the platform is level or the counterweight is centrally located between its guide rails, the clearance between each running face of the guide rail and the position restraint shall not exceed 5 mm (0.2 in.). An additional 1 mm (0.04 in.) shall be allowed to account for variabilities in manufacturing and installation provided that the requirements in (a) through (c) are met. The position restraints shall prevent the car and the counterweight from disengaging from the rails and comply with the following (see Figure 8.4.5.2.3 for the relationships of various dimensions): **(a)** The sum of the clearances between the position restraints and the running face of the rail, d3 and d4, shall not exceed 10 mm (0.39 in.). **(b)** The sum of the clearances between the position restraints and the guide rails, d1 and d2, shall not exceed 10 mm (0.39 in.). **(c)** The depth of engagement with the rail shall be not less than the dimension of the side	No comment - seismic
8.4.7.1.1		**8.4.7.1.1** The counterweight frame and its weight sections shall be designed and arranged to limit the guide-rail force at the lower position restraint to not more than two-thirds of the total seismic force due to the weight or effective weight of the counterweight assembly when it is subjected to a ~~component~~ horizontal seismic force ~~level as defined by 8.4.13 or 8.4.14, or a horizontal seismic force equal to~~ equal to one of the following: **(a)** 0.5Wp (for zone 3 or greater) **(b)** 0.25Wp (for zone 2) **(c)** Fp as specified in 8.4.14 **(d)** component force levels as specified in 8.4.13	No comment - seismic
8.4.7.2		**8.4.7.2** ~~Guiding Members and Position Restraints~~ Reserved for Future Use	No comment - seismic
8.4.7.2.1		~~**8.4.7.2.1** Upper and lower position restraints attached to the counterweight frame shall be provided. The distance between the upper and lower position restraints shall be not less than the height of the counterweight frame. Separate position restraints are not required where such restraints are an integral part of the guiding member.~~	No comment - seismic
8.4.7.2.2		~~**8.4.7.2.2** Position restraints and their attachments to counterweight frames shall be designed to withstand a seismic component force level as defined by 8.4.13 or 8.4.14, or a seismic force acting horizontally on the counterweight assembly equal to **(a)** 0.5Wp (zone 3 or greater) **(b)** 0.25Wp (zone 2)~~	No comment - seismic
8.4.7.2.3		~~**8.4.7.2.3** When the counterweight is centrally located between its guide rails, the clearance between each running face of the guide rail and the position restraint shall not exceed 5 mm (0.187 in.), and the depth of engagement with the rail shall be not less than the dimension of the side running face of the rail.~~	No comment - seismic

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		(7) for hydraulic elevator overspeed valve (see 8.6.5.16.5) ~~(e)~~ (f) USI(s) of the executable software associated with the relevant functions in 2.26.1.7.1 and 3.26.11.1 (see also 2.26.1.7.3). ~~(f)~~ (g) The documentation for the engineering test of skirt panels deflection for units installed or altered under ASME A17.1-2019/CSA B44:19 and later editions (see 8.3.15.5). (h) The elevator manufacturer or supplier of the installed internet-capable device and internet-capable elevator controller shall provide on-site documentation for cybersecurity maintenance and inspection requirements for the internet-capable equipment in accordance with the applicable requirements of IEC 62443. (i) Where test enable operation for limited and general test is provided [see 2.26.7(f)], documentation specifying the location of the test enable device (see 2.26.14.1), a list of the electrical protective devices (see 2.26.14.7) that can be made ineffective by the means for limited and general test (see 2.26.14.3 and 2.26.14.4), and an inspection and test procedure to demonstrate compliance with 2.26.14.1 and 2.26.14.3 through 2.26.14.6.	No comment
8.6.1.1.3		8.6.1.1.3 states 8.6 is not intended to require changes to existing equipment except for several codes. New codes added are 8.6.4.24 (Traction) and 8.6.5.19 (Hydraulic) - System to Monitor and Prevent Automatic Operation of Passenger and Freight Elevators with Faulty Door Contact Circuits - All automatic passenger and freight elevators shall comply with 2.26.5.	This is a significant change and will be very costly if allowed to be retroactive. Many jurisdictions have removed this from their adoption of the 2022 A17.1.
8.6.1.2.1			**SPS 318.17086 (2) (a) 1.** Re-evaluate waiting 3 months to transfer electronic records to paper. Is this happening and it is being checked on the first annual inspections after new installations or mod projects and altertions? **SPS 318.17086 Maintenance, repair, replacement, and testing. (1)** APPLICATION OF ASME A17.1 SECTION 8.6. The introductory paragraph of ASME A17.1 section 8.6 is not included as part of this chapter. **(2)** DOCUMENTATION. (a) These are department rules in addition to the requirements in ASME A17.1 section 8.6.1.1.3: 1. A new or updated maintenance control program, maintenance records, and wiring diagrams in electronic form shall be transferred to a paper copy of the documents by the installing or service contractor within 3 months of the associated maintenance, repair, replacement, or alteration.
8.6.1.2.1			**SPS 318.17086 (2) (a) 2.** Correct "8.6.1.2.1 (f)" to "8.6.1.2.1" without the "(f)". This should be evaluated to see if code can be written to require OEM's to provide test procedures and methods that they would use, without sending other companies in circles. The requirement for OEM's to leave these with the owner must be enforced somehow. The requirement for a follow-up maintenance company to recreate OEM procedures is not possible. 2. The maintenance control program, including any devices and procedures needed to meet ASME A17.1 section 8.6.1.2.1 (f), and the maintenance records and wiring diagrams are the property of the conveyance owner, not a conveyance installer or service company. They may be removed only with the permission of the owner.
			SPS 318.17086 (2) (a) 3. No comment. 3. An additional set of electrical wiring diagrams may be securely located on the top of the car only if another complete set is located in a place that is accessible by the owner or the owner's agent.
8.6.1.2.1			**SPS 318.17086 (2) (b).** This should remain. (b) Substitute the following wording for the requirements in ASME A17.1 section 8.6.1.2.1 (a): For new installations, the initial maintenance control program shall be provided by the equipment manufacturer. For existing equipment undergoing any alteration, repair, or replacement, the maintenance control program for the altered, repaired, or replaced components shall be provided by the person or firm performing the work. The maintenance control program shall be made available to elevator personnel at the scheduled time for service, tests, or inspection.

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8.6.1.2.1			**SPS 318.17086 (2) (c).** This should remain. (c) Substitute the following wording for the requirements in ASME A17.1 section 8.6.1.2.1 (d): A copy of the maintenance control program shall be located as follows: 1. For a conveyance serving a commercial building and having a machine room, control room, or control space accessed directly from a building floor level or the roof, the program shall be located in that machine room, control room, or control space. 2. For a conveyance serving a commercial building and having an inspection and test panel, the inside cover of the inspection and test panel shall provide instructions for locating the maintenance control program. Instructions shall be permanently legible with lettering not less than 1/8 inch in height. 3. For a conveyance serving a dwelling unit, either the maintenance control program shall be at the controller or the front of the controller shall provide instructions for locating the maintenance control program. Instructions shall be permanently legible with lettering not less than 1/8 inch in height.
8.6.1.2.2		8.6.1.2.2 for required on-site documentation. Divided (b) into (b) and (c), added (d) and (f) through (h) for internet-capable devices (i) for test enable operation related to remote interaction operation. See 2.26.13 and 2.26.14.	**SPS 318.17086 (2) (d).** Change the list of codes here from "(a), (b), (c) and par. (e)" to "(a) through (i) and par. (e)" (d) Substitute the following wording for the requirements in the introductory paragraph of ASME A17.1 section 8.6.1.2.2: The documents specified in ASME A17.1 sections 8.6.1.2.2 (a), (b), and (c), and par. (e) shall be located as follows: 1. For a conveyance serving a commercial building and having a machine room, control room, or control space accessed directly from a building floor level or the roof, the documents shall be located in that machine room, control room, or control space. 2. For a conveyance serving a commercial building and having an inspection and test panel, the inside cover of the inspection and test panel shall provide instructions for locating the on-site documentation. Instructions shall be permanently legible with lettering not less than 1/8 inch in height. 3. For a conveyance serving a dwelling unit, either the on-site documentation shall be at the controller or the front of the controller shall provide instructions for locating the onsite documentation. Instructions shall be permanently legible with lettering not less than 1/8 inch in height.
8.6.1.2.2			**SPS 318.17086 (2) (e).** Change the list of codes here from "(a), (b), (c)" to "(a) through (i)" (e) This is a department rule in addition to the requirements in ASME A17.1 section 8.6.1.2.2 (a), (b), and (c): Any plan approval letter, application form, and the plans issued under s. SPS 318.1008.
8.6.1.2.2			**SPS 318.17086 (2) (f).** This should remain. (f) This is a department rule in addition to the requirement in ASME A17.1 section 8.6.1.2.2 (c) (3): Written checkout procedures for two-way communication means shall be required for installations after June 1, 2020.
8.6.1.2.3	**8.6.1.2.3** Where a defective part directly affecting the safety of the operation is identified, the equipment shall be taken out of service until the defective part has been adjusted, repaired, or replaced.		This is similar to SPS 318.1011(8)(c) 2. 2. Where an inspection report denotes conditions that pose an imminent threat to life or limb and require the conveyance to be taken out of service, both of the following shall be done immediately: a. The owner or owner's agent shall take the conveyance out of service. b. The licensed elevator inspector shall notify the department.

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8.6.1.4.			**SPS 318.17086 (2) (g).** This should remain. 8.6.1.4 has not changed. (g) Substitute the following wording for the requirements in the introductory paragraph of ASME A17.1 section 8.6.1.4: Maintenance records shall document compliance with the requirements in ASME A17.1 section 8.6. The maintenance records shall be retained for the most recent 5 years minimum, or from the date of installation or adoption of this chapter edition. Existing maintenance records up to 5 years minimum shall be retained. Maintenance records shall be located as follows: 1. For a conveyance serving a commercial building and having a machine room, control room, or control space accessed directly from a building floor level or the roof, the maintenance records shall be located in that machine room, control room, or control space. 2. For a conveyance serving a commercial building and having an inspection and test panel, the inside cover of the inspection and test panel shall provide instructions for locating the maintenance records. Instructions shall be permanently legible with lettering not less than 1/8 in height. 3. For a conveyance serving a dwelling unit, either the maintenance records shall be at the controller or the front of the controller shall provide instructions for locating the maintenance records. Instructions shall be permanently legible with lettering not less than 1/8 inch in height.
8.6.1.4.1(b)	**8.6.1.4.1 On-Site Maintenance Records** **8.6.1.4.1 (new (b)(3)** **(b)(3)** Where applicable, the USI(s) (2.26.1.7.3) and the associated functions in 2.26.1.7.1 or 3.26.11.1 that are affected	**(b)** Repair and Replacement Records. The following repairs and replacements shall be recorded and shall be kept on-site for viewing by elevator personnel in either hard copy or electronic format. Instructions for locating the records of each unit for immediate viewing shall be posted on the controller or at the means necessary for test (see 2.7.6.4). The provided instructions shall be permanently legible, with characters a minimum 3 mm (0.125 in.) high. The record shall include an explanation of the repair or replacement, date, and name of the person(s) and/or firm performing the task. The record of repairs and replacements shall be retained by the owner of the equipment for the most recent 5 yr or from the date of installation or adoption of ~~this Code edition~~ ASME A17.1 2013/CSA B44-13 and later editions, whichever is less, or as specified by the authority having jurisdiction, and shall be a permanent record for the installation. These records may be kept remotely from the site. **(1)** Repairs (see 8.6.2.1 through 8.6.2.5) including repairs of components and devices listed in 8.6.4 through 8.6.10. **(2)** Replacements (see 8.6.3.1 through 8.6.3.11, except 8.6.3.7 and 8.6.3.10) including replacements of components and devices listed in 8.6.4 through 8.6.10.	No additional comment
8.6.1.4.1(c)		**(c)** Other Records. The following written records shall be kept on-site for each unit. Instructions for locating the records of each unit for immediate viewing shall be posted on the controller or at the means necessary for test (see 2.7.6.4). The provided instructions shall be permanently legible, with characters a minimum 3 mm (0.125 in.) high. These records shall be retained for the most recent 5 yr or from the date of installation or adoption of ~~this Code edition~~ ASME A17.1-2013/CSA B44-13 and later editions, whichever is less or as specified by the authority having jurisdiction. The record shall include the date and name of the person (s) and/or firm performing the task. ... **(5)** Written records where required by 8.6.11.10.4.	No additional comment
8.6.1.4.1(d)	**8.6.1.4.1(d) Permanent Record.** **(1)** Existing text and Note unchanged **(2)** For escalators and moving walks installed or altered under A17.1-2019/B44-19 or later editions, a permanent record of verification of conformance with 6.1.3.3.6 or 6.2.3.3.6, as applicable, for a skirt panel or skirt panel supporting components shall be kept with the On-Site Maintenance Records	**(d)** Permanent Record **(1)** A permanent record of the results of all acceptance tests as required by 8.10.1.1.4 and 8.10.1.1.5 shall be kept with the on-site records. Test tags, complying with ~~2.16.3.3~~ 8.13.3 for marking plates [except lettering shall be 1.6 mm (0.0625 in.)], permanently attached to or adjacent to the controller, shall meet this requirement. NOTE: This requirement does not apply to equipment installed under ASME A17.1-2010/CSA B44-10 and earlier editions.	No additional comment
8.6.1.4.2			**SPS 318.17086 (2) (h).** This should remain. 8.6.1.4.2 has not changed. (h) This is a department rule in addition to the requirements in ASME A17.1 section 8.6.1.4.2: The record of trouble calls shall be included in the on-site maintenance record.

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
8.6.1.6.1		**8.6.1.6.1** Making Safety Devices ~~Inoperative~~ or Means Inoperative or Ineffective. No person shall at any time make inoperative or ineffective any device or means on which safety of users is dependent, including any electrical protective device, except where necessary during tests, inspections (see Sections 8.10 and 8.11), maintenance, repair, and replacement, provided that the installation is first removed from ~~normal operation~~ all modes of operation except Inspection Operation or, where provided, modes enabled by the test enable device (see 2.26.14.1). Such devices shall be restored to their normal operating condition in conformity with the applicable requirements prior to returning the equipment to service (see 2.26.7 and 8.6.1.6).	No comment
8.6.1.6.3		**8.6.1.6.3 Controllers and Wiring** **(c)** When wire jumpers are used during maintenance, repairs, or testing, all jumpers shall be removed and the equipment tested prior to returning it to service. Jumpers shall not be stored in machine rooms, control rooms, hoistways, machinery spaces, control spaces, escalator/moving walk wellways, or pits (see also 8.6.1.6.1). NOTE [8.6.1.6.3(c)]: See Elevator Industry Field Employees' Safety Handbook for recommended minimum jumper control procedures. **(f)** After test enable operation is used (e.g., during maintenance, repairs, troubleshooting, or testing), the test enable device shall be placed in the "OFF" position and the equipment shall be checked for proper operation prior to returning the elevator to service.	No comment
8.6.1.6.5			**SPS 318.17086 (3).** This should remain. 8.6.1.6.5 has not changed. **(3)** FIRE EXTINGUISHERS. Substitute the following wording for the requirements in ASME A17.1 section 8.6.1.6.5: In commercial buildings, a class "ABC" fire extinguisher shall be provided inside of, or within view and within 25 feet of, a dedicated elevator machine room, control room, machinery space, control space, or inspection and test panel as applicable, or a walk-in machine or control room for an escalator or moving walk.
8.6.1.7.1			**SPS 318.17086 (4).** This should remain. 8.6.1.7.1 has not changed. **(4)** WITNESSING PERIODIC TESTS. Substitute the following wording for the requirements in ASME A17.1 section 8.6.1.7.1: Periodic tests may be witnessed by the department or agent municipality or by a person authorized by the department or agent municipality.
8.6.1.7.2		**8.6.1.7.2 Periodic Test Record.** A periodic test record for all periodic tests containing the applicable Code requirement(s) and date(s) performed, and the name of the person or firm performing the test, shall be installed to be readily visible and adjacent to or securely attached to the controller of each unit in the form of a metal tag ~~or other format designated by and acceptable to the authority having jurisdiction~~ conforming to 8.13.3. If any of the alternative test methods contained in 8.6.4.20 were performed, then the test tag shall indicate alternative testing was used for the applicable requirement.	**SPS 318.17086 (5) (a).** This should remain. **(5)** PERIODIC TEST RECORD. Substitute the following wording for the requirements in ASME A17.1 section 8.6.1.7.2.: A record of the required periodic tests shall be included in the maintenance record and comply with all of the following: (a) The test record shall include the tests, applicable code requirements, dates performed, the test results, and the name of the person performing the tests. **SPS 318.17086 (5) (b).** Add "8.6.5.16", "8.6.7.3.1 where serving a commercial occupancy" and replace 'should' with 'shall' " to the list of test codes. 8.13.3 seems to require tags that are much more durable than the foil covered paper tags we have allowed. (b) The test record shall include the license number of the person performing the tests and the name of the company employing the license holder, for tests listed in ASME A17.1 sections 8.6.4.19, 8.6.4.20, 8.6.5.14, 8.6.5.15, 8.6.6.1.1, 8.6.6.2.1, 8.6.6.3.1, 8.6.7.1.1, 8.6.7.2.1, 8.6.7.5.1, 8.6.7.6.1, 8.6.7.7.1, 8.6.7.10, 8.6.8.15, 8.6.10.1.1, and 8.6.10.2.1. **SPS 318.17086 (5) (c).** Concider removing "in ASME A17.1 section 8.6.4.20." so this would apply to any alternative testing (c) If an alternative test method in ASME A17.1 section 8.6.4.20 is utilized, the test report and test tag shall indicate alternative testing was utilized for the applicable requirement.
8.6.1.7.3		**8.6.1.7.3** No person shall at any time make any required safety device or electrical protective device ineffective, except where necessary during tests. Such devices or means shall be restored to their normal operating condition in conformity with the applicable requirements prior to returning the equipment to service (see 2.26.7).	No comment
8.6.2.3	**8.6.2.3 Repair of Speed Governors.** Where a repair is made to a speed governor that affects the tripping linkage or speed adjustment mechanism, the governor shall be checked in conformance with 8.6.4.19.2 and 8.6.4.20.2(a). Where a repair is made to the governor jaws or associated parts that affect the pull-through force, the governor pull-through force shall be checked in conformance with 8.6.4.19.2(b) and 8.6.4.20.2(b). A test tag shall be attached, indicating the date the pull-through test was performed.	**8.6.2.3 Repair of Speed Governors.** Where a repair is made to a speed governor that affects the tripping linkage or speed adjustment mechanism, the governor shall be checked in conformance with 8.6.4.19.2 and 8.6.4.20.2(a). Where a repair is made to the governor jaws or associated parts that affect the pull-through force, the governor pull-through force shall be checked in conformance with 8.6.4.19.2(b) and 8.6.4.20.2(b). A test tag conforming to 8.6.4.20.2(c) shall be attached, indicating the date the pull-through test was performed.	Leads to 8.13.3 which requires tags that are much more durable than the foil-over-paper tags we have allowed. 8.6.4.20.2 (c) *(c)* **After these tests, a tag conforming to 8.13.3 indicating the date of the governor tests, together with the name of the person or firm that performed the tests, shall be attached to the governor in a permanent manner.**

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
8.6.3.1		**8.6.3.1 Replacement Parts.** Replacements shall be made with parts of at least equivalent material, strength, and design. An internet-connected or connectivity enabled device that is interfaced (directly or indirectly) to an elevator controller or an elevator controller that is connected to the internet shall conform to 8.14.1.	No comment
8.6.3.4.4		Replacement of Governor or Safety Rope. 8.6.3.4.4 A test tag conforming to 8.6.4.20.2(c) indicating the date when the pull-through test was performed shall be attached.	Leads to 8.13.3 which requires tags that are more durable than the foil-over-paper tags we have allowed *(c)* After these tests, a tag conforming to 8.13.3 indicating the date of the governor tests, together with the name of the person or firm that performed the tests, shall be attached to the governor in a permanent manner.
8.6.3.10.4		**8.6.3.10.4** A tank replacement ~~shall be classified as an alteration and~~ shall comply with 8.7.3.29 Section 3.24.	No comment, clearer than before
8.6.3.10.5		**8.6.3.10.5** An anticreep leveling device replacement shall be ~~classified as an alteration and shall comply with 8.7.3.31.3~~ tested to determine conformance with 8.10.3.4.2.	No comment, clearer than before
8.6.3.11		**8.6.3.11 Replacement of Valves, Pressure Piping, and Fittings.** **(a)** Where any valves, pressure piping, or fittings are replaced, replacements shall conform to Section 3.19 ~~with the~~ except for 3.19.4.6. (When changing valves, pressure piping, or fittings to a different type, see 8.7.3.24.) The unit shall be tested in accordance with 8.10.3.4.3(a). **(b)** A replacement control valve shall conform ~~to the Code under which they were installed.~~ to 8.6.1.1.2. (When changing a control valve to a different type, see 8.7.3.24.) Relief valves shall be tested in accordance with 8.10.3.4.3(b).	No comment, clearer than before
8.6.3.12		**8.6.3.12 Runby and Clearances After ~~Reroping or Shortening~~ Suspension Means are Replaced.** ~~The minimum car and counterweight clearances specified in 2.4.6 and 2.4.9 shall be maintained when new suspension means are installed or when existing suspension means are shortened. The minimum clearances shall be maintained by any of the methods described in 8.6.3.12.1 through 8.6.3.12.4 (see 8.6.4.11).~~	No comment
8.6.3.12.1		**8.6.3.12.1** ~~Limit the length that the suspension means are shortened.~~ When new suspension means are installed, the minimum top-of-car and top-of-counterweight clearances specified in 2.4.7 and 2.4.8 shall apply and the minimum car and counterweight runby specified in 2.4.2 shall apply. For rheostatic and singlespeed AC control, the runby shall not be less than shown in Table 8.6.3.12.1. Any of the methods or a combination of the methods described in (a) through (c) may be used to satisfy these clearance requirements. (a) Adjust the length of the suspension means ~~8.6.3.12.2~~ (b) Provide blocking at the car or counterweight strike plate. The blocking shall be of sufficient strength and secured in place to withstand the reactions of buffer engagement as specified in 8.2.3. If wood blocks are used to directly engage the buffer, a steel plate shall be fastened to the engaging surface or shall be located between that block and the next block to distribute the load upon buffer engagements. ~~8.6.3.12.3~~ (c) Provide blocking under the car or counterweight buffer or both of sufficient strength and secured in place to withstand the reactions of buffer engagement as described in 8.2.3. ~~8.6.3.12.4 Provide the month and year the suspension means were first shortened. Appropriate data shall be recorded on the data tag (see 2.20.2.2.2).~~ NOTE (8.6.3.12.1): See 2.20.2.2.2(m) and 8.6.4.11.3 when suspension means are first shortened.	No comment, good improvement
8.6.3.16		**8.6.3.16 Replacement of Driving Machine Brake.** When a driving machine brake is replaced, it shall conform to 2.24.8.2 through 2.24.8.7. See also 8.6.4.6.2.	No comment, good improvement

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
8.6.3.17.1		**8.6.3.17.1 Replacement of Complete Driving Machine** **(a)** Where an electric elevator driving machine (see Section 1.3) is replaced, it shall be considered an alteration and shall conform to 8.7.2.25.1, except the replacement driving machine shall be permitted to conform to the code under which the original machine was installed or altered if either of the following apply: **(1)** The driving machine is replaced with equipment approved by the original equipment elevator manufacturer as being equivalent to the original make and model. **(2)** The replaced driving machine is certified by a licensed professional engineer as being equivalent to the original make and model and able to meet the original design criteria of the elevator system. **(b)** Where an electric elevator driving machine is replaced in accordance with (a)(1) or (a)(2), it shall be inspected and tested in accordance with the requirements specified in 8.10.2.4.1(a).	Good that this is stated in code, similar to DSPS position. Currently, a driving machine may be replaced with an identical machine according to (a)(1). A driving machine may be replaced with one of a different manufacturer and model that has been approved for the same duty (speeds and load) by a Wisconsin PE or architect, a nationally recognized test lab or an AECO.
8.6.3.17.2		**8.6.3.17.2 Replacement of Controller** **(a)** Where an elevator controller is replaced with any of the following, the replacement shall be considered an alteration and shall conform to 8.7.2.27.4 or 8.7.3.31.5, as applicable: **(1)** a motion controller **(2)** an operation controller **(3)** a motion and operation controller **(4)** a door controller **(b)** Where an elevator controller is replaced with equipment equivalent to the original make and model due to damage or loss and for the purpose of matching other equipment in the group, the replacement controller shall be permitted to conform to the code under which the original controller was installed or last altered. The replacement controller shall be inspected and tested in accordance with the requirements specified in 8.10.2.4.1(b) or 8.10.3.4.1, as applicable.	Good that this is stated more clearly in code here, similar to DSPS position.
8.6.4.2.2	**8.6.4.2.2** Governor wire ropes shall not be lubricated after installation. If lubricants have been applied to governor ropes, ~~they~~ the governor ropes shall be replaced, ~~or the lubricant removed,~~ and the governor and safety shall be tested as specified in 8.6.4.19.2(b) and 8.6.4.20.2(b).		Safety testing, governor pull-through and pull-out forces, no comment
8.6.4.6.1		**8.6.4.6.1** The driving-machine brake shall be maintained to ensure proper operation, including, but not limited to, the following: ... **(h)** holding and decelerating capacities (see 2.24.8.3)	Added maintenance of brake to include holding and decelerating, no comment
8.6.4.6.2		**8.6.4.6.2** If any part of the driving-machine brake is changed or adjusted that can affect the holding capacity or decelerating capacity of the brake when required (see 2.24.8.3), it shall be adjusted or replaced, as applicable (see 2.24.8.7 and 8.6.3.16), and checked by means that will verify its proper function, holding capacity, and decelerating capacity. A test complying with 8.6.4.20.4 shall be performed.	No comment
8.6.4.19.2	**8.6.4.19.2 Safeties** **(a)**... **(b)** Tests. Safeties shall be subjected to the following tests with no load in the car: **(1)** Type A, B, or C governor-operated safeties shall be operated by manually tripping the governor with the car operating at the slowest operating speed in the down direction. The switch operated by the car safety mechanism shall, for the duration of the test, be temporarily rendered inoperative. If the governor is equipped with a switch that operates when the governor is manually tripped it must be rendered inoperative. Where application of the emergency brake required by 2.19.3 occurs, the means to actuate the emergency brake, for the duration of the test, shall be temporarily disabled to prevent it's		No comment
8.6.4.19.7		Only changed the order of the Emergency or Standby Power in the heading	No comment
8.6.4.19.8	**8.6.4.19.8 Power Operation of Door System.** The closing forces and speed of power-operated hoistway door systems shall be tested to determine conformance with the applicable requirements (Item 1.8 1.8.1). For elevators required to comply with 2.13.4.2.4, the time in the door Code zone distance shall be measured and compared with the time specified on the ~~data~~ door marking plate.		No comment
8.6.4.19.15	**8.6.4.19.15 Emergency Communications**		SPS 318.17086 (6). This should remain **(6)** EMERGENCY COMMUNICATIONS. This is a department rule in addition to the requirements in ASME A17.1 section 8.6.4.19.15: Written checkout procedures for emergency communications shall be required for installations after June 1, 2020.

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
			SPS 318.17086 (7). This should remain **(7)** AUXILIARY POWER SYSTEM TESTS. Where an existing conveyance has an auxiliary power system designed to move the car in order to evacuate passengers, the system shall be tested as part of the Category 1 tests in accordance with manufacturers' recommendations.
8.6.4.19.17	**8.6.4.19.17 Earthquake Operation.** Earthquake operation shall be tested to determine conformance with the applicable requirements. Deficiencies shall be corrected. A record of findings shall be available to the building owner and the authority having jurisdiction. (Item 2.42)		N/A in Wisconsin
8.6.4.19.18	**8.6.4.19.18 Door Reopening Device(s).** The detection means of the door reopening device(s) shall be examined and tested to verify proper operation (Item 1.1.1).		New test, will add slightly to cost of annual testintg, add to test form
8.6.4.19.19	**8.6.4.19.19 Sequence Operation of Power Door Systems (Item 4.7)** Ensure that sequence operation, where provided, is functioning according to code requirements in Section 2.13.		New test, will add slightly to cost of annual testintg, add to test form
8.6.4.19.20	**8.6.4.19.20 Testing of alternative arrangements and A17.7/B44.7 conforming equipment.** As required by the manufacturer and/or ASME A17.7/CSA B44.7 Code Compliance Document, tests shall be performed: **(a)** on equipment applied under alternative arrangements [See 8.6.1.2.2(b)(3)] **(b)** and on equipment specified in an ASME A17.7/CSA B44.7, Code Compliance Document (CCD) [See 8.6.1.2.2(b)(4)].		New test, may add to cost of annual testintg but is necessary, add to test form
8.6.4.19.21		**8.6.4.19.21 System to Monitor and Prevent Automatic Operation of the Elevator With Faulty Door Circuits.** Where provided, the system to prevent automatic operation of the elevator with faulty door circuits (see 2.26.5) shall be tested. The person or firm maintaining the equipment shall provide a written test procedure as part of the on-site documentation [see 8.6.1.2.2(d)(5)] and demonstrate that the elevator meets the applicable requirements of 2.26.5 and ASME A17.3, para. 3.10.12.	New test, may add slightly to cost of annual testintg, add to test form
8.6.4.20	**8.6.4.20 Maintenance and Testing of Electric Elevators**		SPS 318.17086 (8) (a). Remove sentence "Results of all Category 5…." DSPS should not be receiving test forms. **(8)** MAINTENANCE AND TESTING OF ELECTRIC ELEVATORS. (a) *Periodic test requirements, Category 5.* This is a department rule in addition to the requirements in ASME A17.1 section 8.6.4.20: Results of all Category 5 tests shall be submitted to the department or agent municipality on approved forms. **Note:** Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.
8.6.4.20.1	**8.6.4.20.1 Car and Counterweight Safeties.** Types A, B, and C car and counterweight safeties shall be tested in accordance with 8.6.4.20.1(a) or subject to approval by the authority having jurisdiction with 8.6.4.20.1(b). **(a)** Rated Load and Rated Speed Test. Car safeties, except those operating on wood guide rails, and their governors, shall be tested with rated load in the car. Counterweight safety tests shall be made with no load in the car. The car speed at which the governor trips shall be determined by means of a hand held tachometer or other device designed to measure car speed including controllers, service tools and accelerometers. Tests shall be made by tripping the governor by hand at the rated speed. If the governor is equipped with a switch that operates when the governor is manually tripped it must be rendered inoperative. The car safety mechanism switch shall not be rendered inoperative. The emergency brake required by 2.19.3 shall be disabled to prevent it from operating during this test. Since the counterweight safety does not have a safety mechanism switch, the circuit that would remove power from the driving machine motor and brake must be opened as soon as the elevator stops to minimize slack rope and fallback of the car. The following operational conditions shall be checked (Item 2.29.2):		Addition of acceptable speed measuring devices and other details are helpful. SPS 318.17086 (8) (b). Consider adding statement that safety tests are to be conducted according to the codes in effect at the time of the installation of the equipment. (b) *Car and counterweight safeties.* This is a department rule in addition to the requirements in ASME A17.1 section 8.6.4.20.1: Any damaged section of wood guide rails shall be replaced.

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8.6.4.20.1(b)	**8.6.4.20.1** **(b)** when applied, the method shall verify that the safeties perform or are capable of performing in compliance with 8.6.4.20.1(a) and the platform shall not be out of level more than 30 mm/m (0.36 in./ft) in any direction. **2)** ~~A test tag~~ The "Periodic Test Record" shall be completed and installed as required in by 8.6.1.7.2 ~~shall be provided~~.		What form is this currently taking, in addition to the completed test form? **8.6.1.7.2 Periodic Test Record.** A periodic test record for all periodic tests containing the applicable Code requirement(s) and date(s) performed, and the name of the person or firm performing the test, shall be installed to be readily visible and adjacent to or securely attached to the controller of each unit in the form of a metal tag or other format designated by and acceptable to the authority having jurisdiction. If any of the alternative test methods contained in 8.6.4.20 were performed, then the test tag shall indicate alternative testing was used for the applicable requirement.
8.6.4.20.2(c)		Removed NBCC reference	No comment
8.6.4.20.3(g)		Changed the requirement for a test tag meeting 8.6.1.7.2 to a periodic test record meeting 8.6.1.7.2.	Eliminates the need for a test tag.
8.6.4.20.4(b)		Changed the requirement for a test tag meeting 8.6.1.7.2 to a periodic test record meeting 8.6.1.7.2.	Eliminates the need for a test tag.
8.6.4.20.10(b)		Changed the requirement for a test tag meeting 8.6.1.7.2 to a periodic test record meeting 8.6.1.7.2.	Eliminates the need for a test tag.
8.6.4.20.11(c)		Added this for Alternative test method for Emergency Brakes	No DSPS comment
8.6.4.23	**8.6.4.23 Executable Software Verification.** Where executable software for functions listed in 2.26.1.7.1 or 3.26.11.1 has changed as the result of repair or replacement, requiring a new USI, the related safety function(s) shall be tested on-site for the applicable installation and logged in the repair and replacement record.		Should this require some sort of DSPS supervision, plan review and inspection?
8.6.4.24		**8.6.4.24 System to Monitor and Prevent Automatic Operation of Passenger and Freight Elevators with Faulty Door Contact Circuits**	This is a significant change, requiring addition of door lock monitoring to existing elevators as part of maintenance. This would be very costly.
8.6.5.8	**8.6.5.8 Safety Bulkhead**		**(9)** PERIODIC TEST REQUIREMENTS - CATEGORY 1. (a) *Hydraulic tests.* Substitute the following wording for the requirements in the introductory paragraph of ASME A17.1 section 8.6.5.8: An elevator that has hydraulic piping or a portion of its hydraulic cylinder either in the ground or below the pit floor, and not visible for inspection, shall be tested in accordance with the requirements in ASME A17.1 sections 8.6.5.14.1 and 8.6.5.14.2 or shall conform to the requirements in ASME A17.1 section 8.6.5.8 (a) or 8.6.5.8 (b). **SPS 318.17086 (9) (a). 1.** Change SPS 318.17086 (9) (a) to (9) (a) **1.** and state: Substitute the following wording for the requirements in the introductory paragraph of ASME A17.1 section 8.6.5.8: An elevator that has hydraulic piping or a portion of its hydraulic cylinder below the pit floor and not visible for inspection, shall be tested in accordance with the requirements in ASME A17.1 sections 8.6.5.14.1 and 8.6.5.14.2 with the results documented on form SBD-3E-E. 2. An elevator that fails the test specified in ASME A17.1, 8.6.5.14.2 must be removed from service immediately per ASME A17.1, 8.6.1.2.3. The elevator may not be returned to service until corrections are made and the elevator conforms with the testing requirements of 1.

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8.6.5.8 continued			Eliminate (b), (c) and (d). (b) *Relief valve verification of setting and system pressure test.* This is a department rule in addition to the requirements in ASME A17.1 section 8.6.5.14.1: Results of the relief valve setting and system pressure test shall be submitted to the department or agent municipality on approved forms. **Note:** Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112. (c) *Hydraulic cylinders and pressure piping.* This is a department rule in addition to the requirements in ASME A17.1 section 8.6.5.14.2.: Results of the hydraulic cylinder and pressure piping tests shall be submitted to the department or agent municipality on approved forms. **Note:** Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112. (d) *Remove from service.* An elevator that fails a test specified in ASME A17.1 sections 8.6.5.14.1 or 8.6.5.14.2 may not be issued a permit to operate and may not be returned to service until the elevator conforms with the testing requirements. These changes do several things: 1). Clarify that the tests are just for elevators with underground and non-visible piping and/or jack. Above ground piping, jacks, fittings, connections, etc., can be visibly inspected therefor this testing is not required for them. Extending these requirements to elevators with only above-ground hydraulic components would be very costly.and has proven unnecessary, 2). Clarify that testing is not necessarily required if a small part of the jack is below ground but is still visible for the presence of water and corrosion, 3). Direct the reader's attention to the test in 8.6.5.14.2 where the results are actually demonstrated, not 8.6.5.14.1 which only stresses the hydraulic system first, 4). Make this much more concise, 5). Eliminate the requirement to send the test form to the department.
8.6.5.14.3 (g)	**8.6.5.14.3 Additional Tests.** The following tests shall also be performed: **(a)** .... **(g)** Sequence Operation of Power Door Systems ~~Power Operations of Door System (8.6.4.19.8) (Items 4.6 and~~ Item 4.7) **(h)** ...		Changed (g) Power Operation of Door Systems (Items 4.6 and 4.7) to (g) to Sequence operation of power door systems (Item 4.7).
8.6.5.14.3 (g), (j), (k) and (l)		**8.6.5.14.3 Additional Tests**	Removed (g) test of Sequence operation of power door systems (Item 4.7). Added (j) test of Occupant Evacuation Operation Added (k) test of Emergency communications Added (l) test of door restrictors **SPS 318.17086 (9) (e) 1. and 2.** Eliminate these from SPS 318 for hydraulic elevators because these are now in A17.1, 8.6.5.14.3 (f), (j), (i). Check the test form to be sure these are included. (e) *Additional tests.* These are department rules in addition to the requirements in ASME A17.1 section 8.6.5.14.3: 1. Additional tests shall be performed including the emergency communications, in accordance with ASME A17.1 section 8.6.4.19.15, and the means to restrict hoistway or car door opening, in accordance with ASME A17.1 section 8.6.4.19.16. 2. Where an auxiliary power lowering operation, in accordance with ASME A17.1 section 3.26.10, is installed as part of the standby or emergency power operation, a test shall be performed as part of the Category 1 test requirements.
8.6.5.14.6	**8.6.5.14.6 Power Operation of Door System.** The closing forces and speed of power-operated hoistway door systems shall be tested to determine conformance with the applicable requirements (Item 1.8.~~2~~). For elevators required to comply with 2.13.4.2.4, the time in the door Code zone distance shall be measured and compared with the time specified on the ~~data~~ door marking plate.		No comment
8.6.5.14.8	**8.6.5.14.8 Earthquake Operation.** Earthquake operation shall be tested to determine conformance with the applicable requirements. Deficiencies shall be corrected. A record of findings shall be available to the building owner and the authority having jurisdiction. (Item 2.42)		N/A. Do we have to write each reference to eathquake protection out of SPS 318? That would be a lot of code.

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8.6.5.14.9	**8.6.5.14.9 Testing of alternative arrangements and A17.7/B44.7 conforming equipment.** As required by the manufacturer and/or ASME A17.7/CSA B44.7 Code Compliance Document, tests shall be performed: **(a)** on equipment applied under alternative arrangements [See 8.6.1.2.2(b)(3)] **(b)** and on equipment specified in an ASME A17.7/CSA B44.7, Code Compliance Document (CCD) [See 8.6.1.2.2(b)(4)]		Necessary test, update test form if needed
8.6.5.14.10	**8.6.5.14.10 Functional Safety of SIL Rated Device(s).** Verify SIL rated device(s) used to satisfy 2.26.4.3.2 and 2.26.9.3.2(b) are as identified on wiring diagrams (8.6.1.6.3) with part identification, SIL, and certification identification information. The person or firm installing the equipment shall provide a written checkout procedure and demonstrate that SIL rated devices, safety functions (see Table 2.26.4.3.2), and related circuits operate as intended.		Necessary test, update test form if needed
8.6.5.14.11		**8.6.5.14.11 Plunger Gripper** New section	New test. Add to test form
8.6.5.14.12		**8.6.5.14.12 System to Monitor and Prevent Automatic Operation of the Elevator With Faulty Door Circuits**	New test. Add to test form
8.6.5.16.4	**8.6.5.16.4** A plunger gripper, where provided, shall be examined and tested per 8.10.3.2.5(n). (Item 5.17.2) The periodic test record shall be completed. The person or firm installing or maintaining the equipment shall provide a written procedure in the Onsite Documentation [see 8.6.1.2.2(b)(1)] and demonstrate that the plunger gripper shall function as required by 3.17.3.		**SPS 318.17086 (10) (a).** Eliminate the requirement to send the test form to the department. Update test form if needed. **(10)** PERIODIC TEST REQUIREMENTS. (a) This is a department rule in addition to the requirements in ASME A17.1 section 8.6.5.16: Results of all Category 5 tests shall be submitted to the department or agent municipality on approved forms,
8.6.5.17		**8.6.5.17 Plunger Gripper Maintenance**	Change was only made to the heading, adding word Maintenance, not to the code language. No comment
8.6.5.18		**8.6.5.18 Executable Software Verification**	Should this require some sort of DSPS supervision, plan review and inspection?
8.6.5.19		**8.6.5.19 System to Monitor and Prevent Automatic Operation of Passenger and Freight Elevators with Faulty Door Contact Circuits**	This is a significant change, requiring addition of door lock monitoring to existing elevators as part of maintenance. This would be very costly.
8.6.6.1.1	**8.6.6.1.1 Rack-and-Pinion Elevator Periodic Test.** Rack-and-pinion elevators shall be subject to the applicable periodic tests specified in 8.6.4.19, and 8.6.4.20, ~~and 8.6.5.14 through 8.6.5.16~~. The test requirements shall apply to the corresponding requirements of Section 4.1. Any additional requirements for this equipment shall also be checked during these tests.		8.6.4.19 is Cat 1 tests, 8.6.4.20 is Cat 5 tests. No comment.
8.6.7.3.1			**SPS 318.17086 (10) (b).** Eliminate the requirement to send the test form to the department for testing (of private res. elevators serving commercial buildings). (b) This is a department rule in addition to the requirements in ASME A17.1 section 8.6.7.3.1: Where an elevator of the private-residence type or Part V type serves a commercial building and is equipped with a safety device that is subject to testing, the 5-year safety test in ASME A17.1 section 8.6.4.20.1 – and where applicable, the governor test in ASME A17.1 section 8.6.4.20.2 – shall be performed. The test results shall be submitted to the department or agent municipality on an approved form. **Note:** Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.
8.6.7.9.6	**8.6.7.9.6 Compensating Means.** Mine elevator compensating chains shall be replaced when any portion of the link diameter is less than 80% of the original link diameter.		N/A - Mine elevators not regulated
8.6.7.9.7		**8.6.7.9.7 Rack and Pinion Elevator Pits** Kept clean	No comment
8.6.7.9.8		**8.6.7.9.8 Removal of Rack and Pinion Elevator From Service** When gear teeth are damaged	No comment
8.6.8	**8.6.8 Maintenance ~~and Testing~~ of Escalators and Periodic Testing of Escalators and Moving Walks** The maintenance of escalators shall conform to 8.6.1 through 8.6.3 and 8.6.8. The periodic testing of escalators and moving walks shall conform to 8.6.8.15, where applicable. **Note:** See 8.6.9 for the maintenance of moving walks.		No comment

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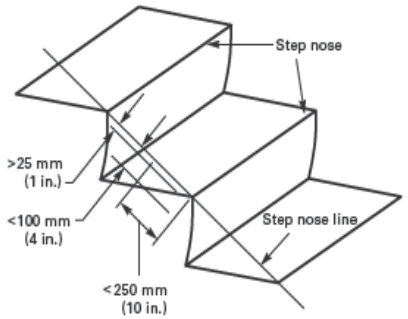
8.6.8.2			SPS 318.170811(7) Why is this in 318.170811 instead of 318.17086? **(7)** PERIODIC INSPECTION AND TESTS OF ESCALATORS AND MOVING WALKS. (a) *Clearance between step and skirt.* This is a department rule in addition to the requirements in ASME A17.1 section 8.6.8.2: Results of the clearance between the step and skirt shall be submitted to the department or agent municipality on approved forms. (b) *Step/skirt performance index.* This is a department rule in addition to the requirements in ASME A17.1 sections 8.6.8.3.1 to 8.6.8.3.3: Results of the step/skirt performance index test shall be submitted to the department or agent municipality on approved forms. **Note:** Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.
8.6.8.3.3	**8.6.8.3.3** The escalator step/skirt performance index shall be one of the following, whichever is applicable: □**(a)**... □**(c)** ≤ 0.4 for escalators installed under ASME A17.1-2000/CSA B44-00 and earlier editions and a skirt deflector device complying with the requirements of 6.1.3.3.10 is		No comment
8.6.8.5	**8.6.8.5 Escalator Skirt Panels and Skirt Obstruction Devices** **(a)** Damaged skirt or dynamic skirt panels shall be replaced or repaired and the installation shall conform to 8.6.8.2 and 8.6.8.3. If the unit was installed or altered under A17.1a-1982 or later editions, then verification that the replacement or repair conforms to 6.1.3.3.6 shall be documented in the On-site Maintenance Records (see 8.6.1.4.1(d)).		No comment
8.6.8.15	**8.6.8.15 Periodic Test Requirements for Escalators and Moving Walks — Category**		No comment
8.6.8.15.4	**8.6.8.15.4 Drive Machine and Brake.** The drive machine and brakes shall be examined and tested, including test of the brake torque (Items 8.4 and 10.4). For escalators and moving walks utilizing dynamic braking: **(a)** removal of electrical power from the driving machine motor and brake for conditions where deceleration and/or stopping distance requirements are not met shall be tested. **(b)** the person or firm maintaining the equipment shall provide a written checkout procedure and demonstrate the system complies with the requirements of the Code.		No comment
8.6.8.15.9	Fig. 8.6.8.15.19(e)  		No changes
8.6.8.15.25	**8.6.8.15.25 Skirt Obstruction Devices** All skirt obstruction devices shall be tested for conformance with 6.1.5.3.1 and 6.1.6.3.6.		No comment
8.6.8.15.26	**8.6.8.15.26 Testing of alternative arrangements and A17.7/B44.7 conforming equipment.**		No comment
8.6.9	**8.6.9 Maintenance of Moving Walks** The maintenance of moving walks shall conform to 8.6.1 through 8.6.3 and 8.6.9. The periodic testing of moving walks shall conform to 8.6.8.15, where applicable.		No comment

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8.6.9.14	**8.6.9.14 Skirt Panels** Damaged skirt panels shall be replaced or repaired and the installation shall conform to 8.6.9.13. If the unit was installed or altered under A17.1a-1982 or later editions, then verification that the replacement or repair conforms to 6.2.3.3.6 shall be documented in the On-site Maintenance Records (see 8.6.1.4.1(d)).		New requirement, no comment
8.6.10.1.1	**8.6.10.1.1 Periodic Test.** Dumbwaiters shall be subject to the applicable periodic tests specified in 8.6.4.19, 8.6.4.20 and 8.6.5.14, 8.6.5.15 and 8.6.5.16. The test requirements shall apply to the corresponding requirements in Part 7. Any additional requirements for this equipment shall also be checked during these tests. On winding-drum machines, the slack-rope devices required by 2.26.2.1 shall be permitted to be tested as specified in Item 2.18. The driving-machine brake shall be tested to determine conformance with 7.2.10 (Item 2.18). **NOTE:** Recommended intervals for periodic inspections and tests can be found in Nonmandatory Appendix N.		For dumbwaiters, added 8.6.4.20 for traction Cat 5 tests, 8.6.5.15 for Cat 3 tests and 8.6.5.16 for hydraulic. Somehow link this to SPS 318.170811 (8) regarding dumbwaiters only needing tests to be performed every 5 years.
8.6.11.1	**8.6.11.1 Firefighters' Emergency Operation.** All elevators provided with Firefighters' Emergency Operation shall be subjected monthly, by authorized personnel, to Phase I recall by use of the key switch, and a minimum of one-floor operation on Phase II, ~~except in jurisdictions enforcing the NBCC~~. Deficiencies shall be reported to, and corrected by elevator personnel. A record of findings shall be available to elevator personnel and the authority having jurisdiction. **Note:** See Non-mandatory Appendix XX for additional operational verification.		**SPS 318.17086 (11) (a) 1., 2., (b) and (c).** No changes. **(11)** SPECIAL PROVISIONS. (a) These are department rules in addition to the requirements in ASME A17.1 section 8.6.11: 1. The record of oil level and oil usage shall be kept quarterly, as part of the record of oil usage required under ASME A17.1 section 8.6.5.7. 2. The record of oil level and oil usage required under subd. 1. shall be included in the maintenance record. (b) Substitute the following wording for the requirements in ASME A17.1 section 8.6.11.1: Elevators provided with firefighters' emergency operation shall be subjected quarterly by authorized personnel to Phase I recall by use of the key switch, and a minimum of one floor operation on Phase II where equipped. Deficiencies shall be corrected. A record of the findings shall be included in the maintenance record. **Note:** Other federal and state laws may require certain facilities to perform at more frequent intervals. (c) This is a department informational note to be used under ASME A17.1 sections 8.6.11.4 to 8.6.11.9: **Note**: Written procedures as specified in these sections will not be evaluated by the department.
8.6.11.4.2		Added requirement for written procedures for glass cleaning to include how to dosconnect power	No comment
8.6.11.10		Added Emergency Brakes to the list of components that can be tested using alternative (no load) testing	No comment
8.6.11.10.3		Small change to referenced code section in (e)	**SPS 318.17086 (12).** Add requirement for alternative test methods to require product approval according to SPS 318.1010 (1) (b). Eliminate the requirement to send the test form to the department. **(12)** ALTERNATIVE TEST METHOD REPORT. This is a department rule in addition to the requirements in ASME A17.1 section 8.6.11.10.4: Where a completed test report for a Category 5 test is required to be sent to the department or agent municipality, the alternative test method report shall be sent to the department or agent municipality.
8.6.11.10.4		Added "if necessary for test method."	**SPS 318.17086 (13).** No changes. **(13)** EXAMINATIONS AFTER EVENTS. This is a department rule in addition to the requirements in ASME A17.1 sections 8.6.11.11 to 8.6.11.14: A record of the findings shall be included in the maintenance record.
8.6.11.16			**SPS 318.17086 (14).** The title for this is "Permit To Operate" but this is really about testing and not PTOs. Consider eliminating "Permit To Operate" from the heading. **(14)** PERMIT TO OPERATE - CATEGORY 1. Category 1 test results shall be valid for one permit to operate term, regardless of whether the test is valid for the purposes of ASME A17.1.
8.6.11.16		Added Remote Interation Operation (RIO)	Require the RIO records to be kep t as hard copies like with all other documentation
8.7.1.4	**8.7.1.4 Welding.** Welding of parts on which the support of the car, counterweight, escalator, or moving walk depends, including driving machines, ~~escalator, or moving walks~~, and trusses, girders, and tracks of escalators and moving walks, shall conform to Section 8.8 and 8.7.1.5.		No comment
8.7.1.8		Removed reference to NBCC	No comment

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8.7.1.10	**8.7.1.10 Executable Software Verification and Witness Test.** Where executable software for functions listed in 2.26.1.7.1 or 3.26.11.1 is changed as part of an alteration, the software changed shall have a new USI that shall be logged in On-Site Documentation (8.6.1.2.2(e)).		Witnessing is in the heading but not in the text of the code. USI - Unique Software Identifier
8.7.1.11		**8.7.1.11 Seismic**	N/A
8.7.1.12		**8.7.1.12 Internet Connectivity - Enabled Devices or Elevator Controllers**	Should this require approval and inspection?
8.7.2.1.1		Added seismic to hoistway walls	N/A
8.7.2.1.2		Added seismic	N/A
8.7.2.1.3		Added seismic	N/A
8.7.2.1.4		Added seismic	
8.7.2.2	**8.7.2.2 Pits** □For Inspection and Test Requirements, see 8.10.2.3.2(x).		No comment
8.7.2.2.1		Added seismic	N/A
8.7.2.3	**8.7.2.3 Location and Guarding of Counterweights.** Where new counterweights are installed or where counterweights are relocated, their location, guarding, and clearances shall conform to Section 2.3 and 2.5.1.2. The installation shall also conform to Section 2.6. For Inspection and Test Requirements, see 8.10.2.3.2(b).		No comment
8.7.2.4	**8.7.2.4 Vertical Car and Counterweight Clearances and Runbys.** No alteration shall reduce any clearance or runby below that required by Section 2.4. Existing clearances shall be permitted to be maintained, except as required by 8.7.2.17.1, 8.7.2.17.2, and 8.7.2.25.2. For Inspection and Test Requirements, see 8.10.2.3.2(y).		No comment
8.7.2.5	**8.7.2.5 Horizontal Car and Counterweight Clearances.** No alteration shall reduce any clearance below that required by Section 2.5. Existing clearances shall be permitted to be maintained, except as required by 8.7.2.17.2. For Inspection and Test Requirements, see 8.10.2.3.2(z).	Added seismic	No comment - N/A
8.7.2.6	**8.7.2.6 Protection of Spaces Below Hoistways.** Where alterations are made to an elevator or the building such that any space below the hoistway is not permanently secured against access, the affected installation shall conform to Section 2.6. For Inspection and Test Requirements, see 8.10.2.3.2(aa).		No comment
8.7.2.7	**8.7.2.7 Machinery Spaces, Machine Rooms, Control Spaces, and Control Rooms** For Inspection and Test Requirements, see 8.10.2.3.2(bb).		No comment
8.7.2.8	**8.7.2.8 Electrical Equipment, Wiring, Pipes, and Ducts in Hoistways and Machine Rooms.** The installation of any new, or the alteration of existing, electrical equipment, wiring, raceways, cables, pipes, or ducts shall conform to the applicable requirements of Section 2.8. For Inspection and Test Requirements, see 8.10.2.3.2(cc).		**SPS 318.17087 (1) (a) and (b).** No comment **SPS 318.17087 Alterations. (1)** This is a department rule in addition to the requirements in ASME A17.1 section 8.7.2.8: Where sprinklers are added to an existing elevator machine room, machinery space, control room, control space, or top of hoistway, the installation shall comply with the requirements in ASME A17.1 section 8.7.2.28 (c) and (e), except as follows: (a) Where the elevator already is equipped with Phase I and Phase II firefighters' emergency operation and the existing car operating panel will remain, the elevator is not required to have the firefighters' emergency operation functions on the car operating panel behind a locked cover, unless required by another part of ASME A17.1 section 8.7. (b) Where the elevator already is equipped with a Phase I key switch of the bypass-off-on type, the key switch is not required to meet ASME A17.1 section 2.27.3.1 unless required by another part of ASME A17.1 section 8.7.
8.7.2.10.1	**8.7.2.10.1 General Requirements** **(a)** …. For Inspection and Test Requirements, see 8.10.2.3.2(o).		No comment
8.7.2.10.2	**8.7.2.10.2 Horizontal Slide-Type Entrances.** □For Inspection and Test Requirements, see 8.10.2.3.2(o).		No comment
8.7.2.10.3	**8.7.2.10.3 Vertical Slide-Type Entrances**. □For Inspection and Test Requirements, see 8.10.2.3.2(o).		No comment
8.7.2.10.4	**8.7.2.10.4 Swing-Type Entrances.** For inspection and test requirements, see 8.10.2.3.2(o).		No comment
8.7.2.11	**8.7.2.11 Hoistway Door Locking Devices, Access Switches, and Parking Devices** □For Inspection and Test Requirements, see 8.10.2.3.2(dd).		No comment
8.7.2.11.5	**8.7.2.11.5 Restricted Opening of ~~Hoistway Doors~~ or Car Doors ~~of Passenger Elevators.~~** Where a device that restricts the opening of hoistway doors or car doors is altered or installed, the device shall conform to 2.14.5.7		They removed "Hoistway Doors" from the heading but not from the code language?

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8.7.2.12	**8.7.2.12 Power Operation of Hoistway Doors.** Where the alteration consists of the addition of, or alteration to, power opening or power closing of hoistway doors, the installation shall conform to 8.7.2.10.1, ~~8.7.2.10.2~~, through 8.7.2.10.3 and 8.7.2.10.5. All new equipment and wiring shall conform to 8.7.2.8 and 2.26.4.2. All modified equipment and wiring shall conform to 8.7.2.8. For inspection and test requirements, see 8.10.2.3.2(a).		No comment
8.7.2.13	**8.7.2.13 Door Reopening Device.** For Inspection and Test Requirements, see 8.10.2.3.2(ee).		No comment
8.7.2.14	**8.7.2.14 Car Enclosures, Car Doors and Gates, and Car Illumination.** For inspection and test requirements, see 8.10.2.3.2(ff).		**SPS 318.17087 (2) and (3)** These refers to 2.14.4. Should installation of a new car or installation of new car door or gate on an existing elevator car require door lock monitoring in A17.1, 2.14.4.2? **(2)** Substitute the following wording for the requirements in ASME A17.1 section 8.7.2.14.1: Where an alteration consists of the installation of a new car, the installation shall conform to sections 2.14, 2.15, and 2.17. **(3)** Substitute the following wording for the requirements in ASME A17.1 section 8.7.2.14.2 (i): Where an alteration consists of the installation of a car door or gate on an existing elevator car, the installation shall conform to 2.14.4, 2.14.5, and 2.14.6.
8.7.2.14.1		Made Wis code national for allowing the longest platform apron possible for the pit depth when installing a new car	Can **SPS 318.1702 (6)** be eliminated? **(6)** CAR FRAMES AND PLATFORMS. This is a department rule in addition to the requirements in ASME A17.1 section 2.15.9: Where an existing elevator is required to comply with ASME A17.1 section 2.15.9.2(a) as part of an alteration, and the depth of the existing pit does not allow for a platform guard of 48 inches in height, the car platform guard shall conform to section 2.15.9 to the extent that the existing pit will permit, but in no case less than the leveling or truck zone plus 3 inches. Raising the car buffer to provide only 1 inch of bottom-car runby may be necessary to maximize the height of the platform guard.
8.7.2.14.2		Added seismic	N/A
8.7.2.14.5	**8.7.2.14.5 Addition of Car Top Railing.** Where a car top railing is installed, the installation shall conform to 8.7.2.14.5.1 or 8.7.2.14.5.2. For inspection and test requirements, see 8.10.2.3.2(rr).		No comment
8.7.2.15.1	**8.7.2.15.1 Alterations to Car Frames and Platforms.** For Inspection and Test Requirements, see 8.10.2.3.2(qq).	Added seismic	No comment - N/A
8.7.2.15.2	**8.7.2.15.2 Increase or Decrease in Deadweight of the Car.** For Inspection and Test Requirements, see 8.10.2.3.2(d).	Added seismic	Can **SPS 318.1702 (6)** be eliminated? **(6)** CAR FRAMES AND PLATFORMS. This is a department rule in addition to the requirements in ASME A17.1 section 2.15.9: Where an existing elevator is required to comply with ASME A17.1 section 2.15.9.2(a) as part of an alteration, and the depth of the existing pit does not allow for a platform guard of 48 inches in height, the car platform guard shall conform to section 2.15.9 to the extent that the existing pit will permit, but in no case less than the leveling or truck zone plus 3 inches. Raising the car buffer to provide only 1 inch of bottom-car runby may be necessary to maximize the height of the platform guard.
8.7.2.16.1	**8.7.2.16.1 Change in Type of Service.** Where an alteration consists of a change in type of service from freight to passenger or passenger to freight, the installation shall conform to: ... **(g)** Sections 2.16; 2.20, except as specified in 8.7.2.21.4; and 2.24 through 2.27 ~~(1) (2) (as modified by 8.7.2.28(a))~~ through 8.7.2.28(f)), except 2.24.1 For Inspection and Test Requirements, see 8.10.2.3.2(q).	Added seismic. Added (d) to allow the longest platform apron possible for the pit depth	Should this require door lock monitoring in A17.1, 2.14.4.2? Can **SPS 318.1702 (6)** be eliminated? **(6)** CAR FRAMES AND PLATFORMS. This is a department rule in addition to the requirements in ASME A17.1 section 2.15.9: Where an existing elevator is required to comply with ASME A17.1 section 2.15.9.2(a) as part of an alteration, and the depth of the existing pit does not allow for a platform guard of 48 inches in height, the car platform guard shall conform to section 2.15.9 to the extent that the existing pit will permit, but in no case less than the leveling or truck zone plus 3 inches. Raising the car buffer to provide only 1 inch of bottom-car runby may be necessary to maximize the height of the platform guard.
8.7.2.16.2	**8.7.2.16.2 Change in Class of Loading.** For Inspection and Test Requirements, see 8.10.2.3.2(p).	Added seismic	No comment - N/A
8.7.2.16.3	**8.7.2.16.3 Carrying of Passengers on Freight Elevators.** For inspection and test requirements, see 8.10.2.3.2(q).	Added seismic	No comment - N/A

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8.7.2.16.4	**8.7.2.16.4 Increase in Rated Load.** For Inspection and Test Requirements, see 8.10.2.3.2(q).	Added seismic	**SPS 318.17087 (4)** This refers to 2.14.4. Should increase in rated load require door lock monitoring in A17.1, 2.14.4.2? **(4)** Substitute the following wording for the requirements in ASME A17.1 section 8.7.2.16.4 (a): Car doors or gates shall be provided at all car entrances. Where new car doors or gates are installed, they shall conform to 2.14.4, 2.14.5, and 2.14.6. Can **SPS 318.1702 (6)** be eliminated? **(6)** CAR FRAMES AND PLATFORMS. This is a department rule in addition to the requirements in ASME A17.1 section 2.15.9: Where an existing elevator is required to comply with ASME A17.1 section 2.15.9.2(a) as part of an alteration, and the depth of the existing pit does not allow for a platform guard of 48 inches in height, the car platform guard shall conform to section 2.15.9 to the extent that the existing pit will permit, but in no case less than the leveling or truck zone plus 3 inches. Raising the car buffer to provide only 1 inch of bottom-car runby may be necessary to maximize the height of the platform guard.
8.7.2.17.1	**8.7.2.17.1 Increase or Decrease in Rise.** For Inspection and Test Requirements, see 8.10.2.3.2(n).		**SPS 318.17087 (5)** No comment **(5)** This is a department rule in addition to the requirements in ASME A17.1 section 8.7.2.17.1: Where an elevator is not equipped with Phase I and Phase II firefighters' emergency operation and an increase in rise results in travel of 25 feet or more above or below the designated level, the installation shall meet the requirements in ASME A17.1 sections 2.27.3 to 2.27.9 for the installation of firefighters' emergency operation.
8.7.2.17.2	**8.7.2.17.2 Increase in Rated Speed.** For Inspection and Test Requirements, see 8.10.2.3.2(j).	Added (12) to allow platform aprons as long (tall) as possible for the pit depth when rated speed is being increased	**SPS 318.17087 (6)** These refers to 2.14.4 for Passenger and Freight Car Doors and Gates General Requirements. Should installation of a new car or installation of new car door or gate on an existing elevator car require door lock monitoring in A17.1, 2.14.4.2? **(6)** Substitute the following wording for the requirements in ASME A17.1 section 8.7.2.17.2 (b) (4): Car doors or gates shall be provided at all car entrances. Where new car doors or gates are installed, they shall conform to section 2.14. Can **SPS 318.1702 (6)** be eliminated?
8.7.2.18	**8.7.2.18 Car and Counterweight Safeties.** For Inspection and Test Requirements, see 8.10.2.3.2(e).		No comment
8.7.2.19	**8.7.2.19 Speed Governors and Governor Ropes.** For Inspection and Test Requirements, see 8.10.2.3.2(f).		No comment
8.7.2.20	**8.7.2.20 Ascending Car Overspeed and Unintended Car Movement Protection.** For Inspection and Test Requirements, see 8.10.2.3.2(gg).	Added allowance for platform apron to be as long (tall) as possible for the pit depth when ascending car overspeed and unintended car movement device is installed.	Can **SPS 318.1702 (6)** be eliminated?
8.7.2.21	**8.7.2.21 Suspension Means and Their Connections.** For inspection and test requirements, see 8.10.2.3.2(hh).		No comment
8.7.2.22	**8.7.2.22 Counterweights.** For inspection and test requirements, see 8.10.2.3.2(ii).		No comment
8.7.2.23	**8.7.2.23 Car and Counterweight Buffers and Bumpers.** For Inspection and Test Requirements, see 8.10.2.3.2(c).		No comment
8.7.2.24	**8.7.2.24 Guide Rails, Supports, and Fastenings.** For Inspection and Test Requirements, see 8.10.2.3.2(b).		No comment
8.7.2.25.1	**8.7.2.25.1 Alterations to Driving Machines and Sheaves** **(a)** For Inspection and Test Requirements, see 8.10.2.3.2(r) **(b)** For Inspection and Test Requirements, see 8.10.2.3.2(v) and if driving machine brake is altered, 8.10.2.3.2(h). **(c)** For Inspection and Test Requirements, see 8.10.2.3.2(w).	Added allowance for platform apron to be as long (tall) as possible for the pit depth ….	Can **SPS 318.1702 (6)** be eliminated?
8.7.2.25.2	**8.7.2.25.2 Change in Location of the Driving Machine** **(a)** Where the location of the driving machine is changed, the installation shall conform to 2.7.2, 2.7.5, 2.7.6.3.1, 2.7.6.3.3, 2.7.6.4, 2.7.8, 2.7.9, Sections 2.8 through 2.10, Section 2.19, Section 2.20, 2.24.1, 2.24.2.3, and Section 2.28. For elevators in the same group, Section 2.29 also applies. For inspection and test requirements, see 8.10.2.3.2(i). **(b)** Where the location of the driving machine is changed with an increase or decrease in rise, the installation shall conform to (a) and 8.7.2.17.1. For inspection and test requirements, see 8.10.2.3.2(i).	Added allowance for platform apron to be as long (tall) as possible for the pit depth….	Can **SPS 318.1702 (6)** be eliminated?
8.7.2.26	**8.7.2.26 Terminal Stopping Devices.** Where an alteration is made to any terminal stopping device, the installation shall conform to Section 2.25. For inspection and test requirements, see 8.10.2.3.2(k).		No comment

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8.7.2.27.1	**8.7.2.27.1 Inspection Operation and Inspection Operation With Open Door Circuits** **(a)** Where there is an alteration to or addition of any type of inspection operation [see 2.26.1.4.1(a)], the alteration shall conform to the applicable requirements in 2.26.1.4. **(b)** Where there is an alteration to or addition of car door bypass or hoistway door bypass switches, the alteration shall conform to 2.26.1.5. For inspection and test requirements, see 8.10.2.3.2(jj).		No comment
8.7.2.27.2	**8.7.2.27.2 Car-Leveling or Truck-Zoning Devices.** Where there is an alteration to or addition of a car-leveling device or a truck-zoning device, it shall conform to 2.26.1.6. For Inspection and Test Requirements, see 8.10.2.3.2(kk).		No comment
8.7.2.27.3	**8.7.2.27.3 Change in Power Supply.** For Inspection and Test Requirements, see 8.10.2.3.2(ll).		No comment
8.7.2.27.4(a) thru c	**8.7.2.27.4 Controllers** **(a)** For Inspection and Test Requirements, see 8.10.2.3.2(s) □ **(b)** For Inspection and Test Requirements, see 8.10.2.3.2(s) **(c)** For Inspection and Test Requirements, see 8.10.2.3.2(s). **(d)** For Inspection and Test Requirements, see 8.10.2.3.2(u).(g) Sections 2.16; … **(c)** Where both a motion controller and an operation controller are installed without any change in the type of motion control as described in 8.7.2.27.4(a) and without any change in the type of operation control as described in 8.7.2.27.4(b), the installation shall conform to the following: **(1)**.... **(6)** Requirement 2.27.2 (as modified by 8.7.2.28(b) and 8.7.2.28(f)) applies when emergency power is provided **(7)** in jurisdictions not enforcing NBCC, 2.27.3 through 2.27.9 (as modified by 8.7.2.28(c) through 8.7.2.28(f)) apply **(-a)** when travel is 8 m (25 ft) or more above or below the designated landing; or **(-b)** on installations when Firefighters' Emergency Operation was required or provided at the time of installation **(8)** in jurisdictions enforcing NBCC, 2.27.3 through 2.27.9 (as modified by 8.7.2.28(c)) through 8.7.2.28(f)) apply only if Firefighters' Emergency Operation was required or provided at the time of installation (9) Section 2.29 for elevators in the same group For inspection and test requirements, see 8.10.2.3.2(s).	Added allowance for platform apron to be as long (tall) as possible for the pit depth….	Can **SPS 318.1702 (6)** be eliminated?
8.7.2.27.4 (d) thru (e)	**(d)** Where a controller for the operation of hoistway doors, car doors, or car gates is installed, see 8.7.2.12. For inspection and test requirements, see 8.10.2.3.2(u). **(e)** Where a controller for the elevator operation on emergency or standby power systems or Firefighters' Emergency Operation is installed, see 8.7.2.28.		No comment
8.7.2.27.5 (f)		Added allowance for platform apron to be as long (tall) as possible for the pit depth….	This refers to 2.14.4. Should change in type of motion control require door lock monitoring in A17.1, 2.14.4.2? Can **SPS 318.1702 (6)** be eliminated?
8.7.2.27.5 (g) thru (n)	**8.7.2.27.5 Change in Type of Motion Control.** Where there is a change in the type of motion control (the method of controlling acceleration, speed, retardation, and stopping), the installation shall conform to the following: … **(m)** In jurisdictions not enforcing NBCC, emergency operation and signaling devices shall be provided and shall conform to Section 2.27 (as modified by 8.7.2.28(a) through 8.7.2.28(f)) In jurisdictions enforcing NBCC, the following shall be complied with: **(1)** car emergency signaling devices complying with 2.27.1, (as modified by 8.7.2.27.8(a) and 8.7.2.27.8(f)) and **(2)** emergency operation and signaling devices conforming to 2.27.2 through 2.27.9 (as modified by 8.7.2.28(c) through 8.7.2.28(f)) where required by NBCC, or a prior edition of CSA B44.□ **(n)** Equipment and floors shall be identified as required by Section 2.29 for the elevators	in (p), added allowance for platform apron to be as long (tall) as possible for the pit depth….	Can **SPS 318.1702 (6)** be eliminated?
8.7.2.27.6 (a) thru (k)	**8.7.2.27.6 Change in Type of Operation Control.** □. **(p)** Equipment and floors shall be identified as required by 2.29 for the elevators in the same group. □ □. **(o)** Emergency operation and signaling devices shall be provided and shall conform to Section 2.27 (as modified by 8.7.2.28(a) through 8.7.2.28(f)).		This refers to 2.14.4 in (h). Should change in type of operation control require door lock monitoring in A17.1, 2.14.4.2? Can **SPS 318.1702 (6)** be eliminated?

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8.7.2.27.6 (l) thru (p)	**8.7.2.27.6 Change in Type of Operation Control.** **(p)** For Inspection and Test Requirements, see 8.10.2.3.2(t).	in (r), added allowance for platform apron to be as long (tall) as possible for the pit depth….	Can **SPS 318.1702 (6)** be eliminated?
8.7.2.27.7	**8.7.2.27.7 In-Car Stop Switch.** **(b)** For Inspection and Test Requirements, see 8.10.2.3.2(mm).		No comment
8.7.2.27.8	**8.7.2.27.8 Electrical Protective Devices.** For Inspection and Test Requirements, see 8.10.2.3.2(nn).		No comment
8.7.2.27.9	**8.7.2.27.9 Door Monitoring System.** For Inspection and Test Requirements, see 8.10.2.3.2(oo).		No comment
8.7.2.27.10		Alteration of addition of Remote Interation Operation	No comment
8.7.2.28	**8.7.2.28 Emergency Operations and Signaling Devices** **(a)** ...For Inspection and Test Requirements, see 8.10.2.3.2(pp). **(b)** ...For Inspection and Test Requirements, see 8.10.2.3.2(l). **(c)** Where an alteration is made to, or consists of the addition of, Firefighters' Emergency or Occupant Evacuation Operation, the elevator and all elevators in the same group automatic operation shall conform to 2.27.3 through 2.27.8 and 2.27.11. For Inspection and Test Requirements, see 8.10.2.3.2(m). **(d)** ...For Inspection and Test Requirements, see 8.10.2.3.2(m). **(e)** Equipment and floors shall be identified as required by Section 2.29 for elevators in the same group. **(f)** Change in Type of Service (8.7.2.16.1), Controllers (8.7.2.27.4), Change in Type of Motion Control (8.7.2.27.5), or Change in Type of Operation Control (8.7.2.27.6) requires Emergency Operations and Signaling Devices to be altered, conforming to Section 2.27. **(g)** The requirements of 8.7.2.28 (f) shall be permitted to be modified according to the requirements of 8.7.2.28.		**SPS 318.17087 (7)** No changes. **(7)** This is a department rule in addition to the requirements in ASME A17.1 section 8.7.2.28 (c): All elevators in the building equipped with firefighters' emergency operation shall conform to the requirements in ASME A17.1 section 2.27.8 for switch keys. **SPS 318.17087 (8)** No changes. **(8)** This is a department rule in addition to the requirements in ASME A17.1 section 8.7.2.28 (d): All elevators in the building equipped with firefighters' emergency operation shall conform to the requirements in ASME A17.1 section 2.27.8 for switch keys. Added seismic
8.7.3.2.1	**8.7.3.2.1** Alterations made to the pit shall conform to 2.1.2.3 and Section 2.2. See also 8.7.3.4. For inspection and test requirements, see 8.10.3.3.2(u).		No comment
8.7.3.3	**8.7.3.3 Location and Guarding of Counterweights.** Where new counterweights are installed, they shall conform to Section 2.3 and 2.5.1.2. The installation shall also conform to Section 3.5. For inspection and test requirements, see 8.10.3.3.2(b).		No comment, added seismic
8.7.3.4	**8.7.3.4 Vertical Car and Counterweight Clearances and Runbys.** No alteration shall reduce any clearance or runby below that required by Section 3.4. Existing clearances shall be permitted to be maintained, except as required by 8.7.3.22.1, 8.7.3.22.2, and 8.7.3.23.5. For inspection and test requirements, see 8.10.3.3.2(v).		No comment
8.7.3.5	**8.7.3.5 Horizontal Car and Counterweight Clearances.** No alteration shall reduce any clearance below that required by Section 2.5. Existing clearances shall be permitted to be maintained, except as required by 8.7.3.22.1, 8.7.3.22.2, and 8.7.3.23.5. For inspection and test requirements, see 8.10.3.3.2(w).		No comment
8.7.3.6	**8.7.3.6 Protection of Spaces Below Hoistways.** Where alterations are made to an elevator or the building, such that any space below the hoistway is not permanently secured against access, the affected installation shall conform to Section 3.6. For inspection and test requirements, see 8.10.3.3.2(x).		No comment
8.7.3.7	**8.7.3.7 Machine Rooms, Machinery Spaces, Control Spaces, and Control Rooms.** ... For inspection and test requirements, see 8.10.3.3.2(y).		No comment
8.7.3.8	**8.7.3.8 Electrical Wiring, Pipes, and Ducts in Hoistways and Machine Rooms.** For inspection and test requirements, see 8.10.3.3.2(z).		**SPS 318.17087 (9) (a) and (b).** No comment **(9)** This is a department rule in addition to the requirements in ASME A17.1 section 8.7.3.8: Where sprinklers are added to an existing elevator machine room, machinery space, control room, control space, or top of hoistway, the installation shall comply with the requirements in ASME A17.1 section 8.7.3.31.8 (c) and (e), except as follows: (a) Where the elevator already is equipped with Phase I and Phase II firefighters' emergency operation and the existing car operating panel will remain, the elevator is not required to have the firefighters' emergency operation functions on the car operating panel behind a locked cover, unless required by another part of ASME A17.1 section 8.7. (b) Where the elevator already is equipped with a Phase I key switch of the bypass-off-on type, the key switch is not required to meet ASME A17.1 section 2.27.3.1 unless required by another part of ASME A17.1 section 8.7.
8.7.3.10	**8.7.3.10 Hoistway Entrances and Openings.** For inspection and test requirements, see 8.10.2.3.2(o).		No comment
8.7.3.11	**8.7.3.11 Hoistway Door Locking Devices.** For Inspection and Test Requirements, see 8.10.3.3.2(dd).		No comment
8.7.3.12	**8.7.3.12 Power Operation of Hoistway Doors.** For Inspection and Test Requirements, see 8.10.3.3.2(a).		No comment

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8.7.3.13.1	**8.7.3.13.1** Where alterations are made to car enclosures, they shall conform to 8.7.2.14. For inspection and test requirements, see 8.10.3.3.2(cc).		This refers to 2.14.4. Should installation of a new car or installation of new car door or gate on an existing elevator car require door lock monitoring in A17.1, 2.14.4.2?
8.7.3.13.2	**8.7.3.13.2** Where a reopening device for power operated car doors or gates is altered or added, it shall conform to 8.7.2.13. For Inspection and Test Requirements, see 8.10.3.3.2(bb).		No comment
8.7.3.14	**8.7.3.14 Car Frames and Platforms.** For Inspection and Test Requirements, see 8.10.3.3.2(dd).		No comment - added seismic
8.7.3.15.1	**8.7.3.15.1** Where the alteration consists of the installation of car safeties, the car safeties and car guide rails shall conform to 3.17.1 and Sections 3.23 and 3.28. For inspection and test requirements, see 8.10.3.3.2(e).		No comment
8.7.3.15.2	**8.7.3.15.2** Where the alterationconsists of the installation of counterweight safeties, the counterweight safeties and counterweight guide rails shall conform to 3.17.2 and Sections 3.23 and 3.28. For inspection and test requirements, see 8.10.3.3.2(e).		No comment
8.7.3.15.3	**8.7.3.15.3** Where any alterations are made to existing car or counterweight safeties, the affected safeties and guide rails shall conform to Sections 3.17, 3.23, and 3.28, except for cross-referenced 2.17.10 through 2.17.14, 2.17.16, and 2.21.4.2. For inspection and test requirements, see 8.10.3.3.2(e).		No comment
8.7.3.16	**8.7.3.16 Governors and Governor Ropes.** Where alterations are made to governors or where they are added, they shall conform to 8.7.2.19. For inspection and test requirements, see 8.10.3.3.2(f).		No comment
8.7.3.17	**8.7.3.17 Change in Type of Service.** Where an alteration consists of a change in type of service from freight to passenger or passenger to freight, the installation shall conform to □. **(f)** Sections 3.16, 3.18, 3.19, 3.20, 3.24, 3.25, 3.26, and 3.27 (as modified by 8.7.3.31.8(a) through 8.7.3.31.8(f)). For inspection and test requirements, see 8.10.3.3.2(i).		No comment
8.7.3.18	**8.7.3.18 Change in Class of Loading.** For inspection and test requirements, see 8.10.3.3.2(j).		No comment
8.7.3.19	**8.7.3.19 Carrying of Passengers on Freight Elevators.** Where the alteration consists of a change in type of service from a freight elevator to a freight elevator permitted to carry passengers, the elevator shall conform to 3.16.4. For inspection and test requirements, see 8.10.3.3.2(j).		No comment
8.7.3.20	**8.7.3.20 Increase in Rated Load.** Where an alteration involves an increase in the rated load, the installation shall conform to 2.26.1.4, 2.26.1.5, 2.26.5, Sections 3.14 through 3.17, and Sections 3.20 through 3.23 (see also 8.7.3.23.4). For inspection and test requirements, see 8.10.3.3.2(g).		This refers to 2.14.4. Should increase in rated load require door lock monitoring in A17.1, 2.14.4.2?
8.7.3.21 8.7.3.22	**8.7.3.21 Increase in the Deadweight of the Car.** Where an alteration results in an increase in the deadweight of the car that is sufficient to increase the sum of the deadweight and rated load, as originally installed, by more than 5%, the installation shall conform to Sections 3.14 through 3.17 and Sections 3.20 through 3.23 (see also 8.7.3.23.4). For inspection and test requirements, see 8.10.3.3.2(d).		No comment
8.7.3.22.1	**8.7.3.22.1 Increase or Decrease in Rise.** **(e)** For Inspection and Test Requirements, see 8.10.3.3.2(j).		**SPS 318.17087 (10) (a) and (b).** No comment **(10)** These are department rules in addition to the requirements in ASME A17.1 section 8.7.3.22.1: (a) Where an elevator is not equipped with Phase I and Phase II firefighters' emergency operation and an increase in rise results in travel of 25 feet or more above or below the designated level, the installation shall meet the requirements in ASME A17.1 section 8.7.3.31.8 (c) for the installation of firefighters' emergency operation. (b) A decrease in travel shall conform to the requirements of ASME A17.1 section 3.4.3.
8.7.3.22.2	**8.7.3.22.2 Increase in Rated Speed.** **(i)** For Inspection and Test Requirements, see 8.10.3.3.2(j).		This refers to 2.14.4. Should increase in rated speed require door lock monitoring in A17.1, 2.14.4.2?
8.7.3.22.3	**8.7.3.22.3 Decrease in Rated Speed.** For Inspection and Test Requirements, see 8.10.3.3.2(j).		No comment
8.7.3.23.1	**8.7.3.23.1 Hydraulic Jack.** Where a hydraulic jack is installed, altered, or replaced, it shall conform to Section 3.18. For inspection and test requirements, see 8.10.3.3.2(n).		No comment
8.7.3.23.2	**8.7.3.23.2 Plungers.** For inspection and test requirements, see 8.10.3.3.2(n).		No comment
8.7.3.23.3	**8.7.3.23.3 Cylinders.** For Inspection and Test Requirements, see 8.10.3.3.2(n).		No comment

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8.7.3.23.4	**8.7.3.23.4 Increase in Working Pressure.** For Inspection and Test Requirements, see 8.10.3.3.2(h).		No comment
8.7.3.23.5	**8.7.3.23.5 Change in Location of the Hydraulic Jack.** For Inspection and Test Requirements, see 8.10.3.3.2(i).		No comment
8.7.3.23.6	**8.7.3.23.6 Relocation of the Hydraulic Machine (Power Unit).** For Inspection and Test Requirements, see 8.10.3.3.2(y).		No comment
8.7.3.23.7	**8.7.3.23.7 Plunger Gripper.** For Inspection and Test Requirements, see 8.10.3.3.2(t).		No comment
8.7.3.24	**8.7.3.24 Valves, Pressure Piping, and Fittings** **(a)** Where an existing control valve is replaced with a valve of a different type (model), that is not designated by a valve manufacturer as a direct replacement, or where the mechanical properties differ, or where the electrical interface required to connect the valve is not the same, it shall be an alteration and ~~it~~ shall conform to 3.19. (See 8.6.3.11 if the valve replacement has the same mechanical properties, does not require modifications to the electrical valve interface and the valve is designated as a direct replacement by the valve manufacturer). **(b)** Where a relief, or check, shutoff, manual lowering or overspeed valves ~~or the supply piping or fittings are~~ is replaced with a valve that requires additional piping modifications or other interface changes ~~as part of an alteration~~, the replacement components ~~replaced~~ shall conform to the applicable requirements of 3.19. **(c)** Where the supply piping is rerouted, the rerouted piping and fittings shall conform to the applicable requirements of 3.19. **(d)** Where supply piping or fittings are replaced, the replacement components shall conform to 8.6.3.11. **(e)** Where electrically operated control valves are installed in place of existing mechanically operated control valves, for rated speeds of more than 0.5 m/s (100 ft/min), existing terminal stopping devices consisting of an automatic stop valve independent of the normal control valve and operated by the movement of the car as it approaches the terminals, where provided, shall be permitted to be retained. For Inspection and Test Requirements, see 8.10.3.3.2(o).		Much clearer, added seismic, no other comment
8.7.3.25.1	**8.7.3.25.1 Change in Ropes.** For Inspection and Test Requirements, see 8.10.3.3.2(ee).		No comment
8.7.3.26	**8.7.3.26 Counterweights.** For Inspection and Test Requirements, see 8.10.3.3.2(ff).		No comment
8.7.3.27	**8.7.3.27 Car Buffers and Bumpers.** For Inspection and Test Requirements, see 8.10.3.3.2(c).		No comment
8.7.3.28	**8.7.3.28 Guide Rails, Supports, and Fastenings.** For Inspection and Test Requirements, see 8.10.3.3.2(b).		No comment
8.7.3.30	**8.7.3.30 Terminal Stopping Devices.** For Inspection and Test Requirements, see 8.10.3.3.2(k).		No comment
8.7.3.31.1	**8.7.3.31.1 Top-of-Car Operating Devices.** For Inspection and Test Requirements, see 8.10.3.3.2(gg).		No comment
8.7.3.31.2	**8.7.3.31.2 Car-Leveling or Truck-Zoning Devices.** For Inspection and Test Requirements, see 8.10.3.3.2(hh).		No comment
8.7.3.31.3	**8.7.3.31.3 Anticreep Leveling Device.** For Inspection and Test Requirements, see 8.10.3.3.2(ii).		No comment
8.7.3.31.4	**8.7.3.31.4 Change in Power Supply.** For Inspection and Test Requirements, see 8.10.3.3.2(jj).		No comment

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8.7.3.31.5	**8.7.3.31.5 Controllers.** **(a)(4), (b)(4), (c8) -** For Inspection and Test Requirements, see 8.10.3.3.2(s). **(d) -** For Inspection and Test Requirements, see 8.10.3.3.2(q) **(a)** Where a motion controller is installed, without any change in the type of motion control, and without replacing the existing operation control, the installation shall conform to the following: … **(4)** Section 2.29 for the elevators in the same group **(b)** Where an operation controller is installed, and the type of operation control, if automatic remains automatic, or, if non-automatic remains continuous pressure, car switch, or other type of operation where the movement or stopping of the car is under the control of the operator (non-automatic), and the existing motion control equipment is retained, the installation shall conform to the following: … **(4)** Section 2.29 for the elevators in the same group **(c)** Where both a motion controller and an operation controller are installed without any change in the type of motion control as described in 8.7.3.31.5(a) and without any change in the type of operation control as described in 8.7.3.31.5(b), the installation shall conform to the following: … **(8)** Section 2.29 for the elevators in the same group.		This is much clearer because it now states "When the replacement of the controller does not meet the requirements of 8.6.3.17.2 (b)…" This now differentiates between controller replacements and alterations.
8.7.3.31.5 d thru e	**8.7.3.31.5 Controllers.** … **(c)** Where both a motion controller and an operation controller are installed without any change in the type of motion control as described in 8.7.3.31.5(a) and without any change in the type of operation control as described in 8.7.3.31.5(b), the installation shall conform to the following: … **(5)** Requirement 2.27.2 (as modified by 8.7.3.31.8(b) and 8.7.3.31.8(f)) applies when emergency power is provided. **(6)** In jurisdictions not enforcing NBCC, 3.27.1 through 3.27.4 9 (as modified by 8.7.3.31.8(c) through 8.7.3.31.8(f)), 2.27.3 through 2.27.9 (as modified by 8.7.2.28(c) through 8.7.2.28(f)) apply **(-a)** when travel is 8 m (25 ft) or more above or below the designated landing; or **(-b)** on installations when Firefighters' Emergency Operation was required or provided at the time of installation. **(7)** In jurisdictions enforcing NBCC, 3.27.1 through 3.27.4 (as modified by 8.7.3.31.8(c) through 8.7.3.31.8(f)), and 2.27.3 through 2.27.9 (as modified by 8.7.2.28(c) through 8.7.2.28(f)) apply only if Firefighters' Emergency Operation was required or provided at the time of installation. … **(e)** Where a controller for the elevator operation on emergency or standby power systems or Firefighters' Emergency Operation is installed, see ~~8.7.3.28~~ 8.7.3.31.8.		*(6)* In jurisdictions not enforcing the NBCC, 3.27.1 through 3.27.4 [as modified by 8.7.3.31.8(c) through 8.7.3.31.8(f)] and 2.27.3 through 2.27.9 [as modified by 8.7.2.28(c) through 8.7.2.28(f)] apply Are these code sections in brackets [ ] in this code section and elsewhere enforceable?
8.7.3.31.6	**8.7.3.31.6 Change in Type of Motion Control.** For Inspection and Test Requirements, see 8.10.3.3.2(r)		No comment
8.7.3.31.6(a) to (h)	**8.7.3.31.6 Change in Type of Motion Control.** … **(l)** In jurisdictions not enforcing NBCC, emergency operation and signaling devices shall conform to Section 3.27 (as modified by 8.7.3.31.8(a) through 8.7.3.31.8(f)). In jurisdictions enforcing NBCC, the following shall be complied with: **(1)** car emergency signaling devices complying with 2.27.1, (as modified by 8.7.2.28.8(a) and 8.7.2.28.8(f)) and **(2)** emergency operation and signaling devices conforming to 3.27 (as modified by 8.7.3.31.8(a) through 8.7.3.31.8(f)) where required by NBCC, or a prior edition of CSA B44.		This refers to 2.14.4. Should change in type of motion control require door lock monitoring in A17.1, 2.14.4.2?
8.7.3.31.6(h) thru (m)	**8.7.3.31.6 Change in Type of Motion Control.** … **(m)** Section 2.29 for the elevators in the same group.		No comment
8.7.3.31.7(a) thru (l)	**8.7.3.31.7 Change in Type of Operation Control.** **(m)** Emergency operation and signaling devices shall be provided and shall conform to Section 3.27 (as modified by 8.7.3.31.8(a) through 8.7.3.31.8(f)).		This refers to 2.14.4. Should change in type of operation control require door lock monitoring in A17.1, 2.14.4.2?

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8.7.3.31.8	**8.7.3.31.8 Emergency Operation and Signaling Devices** **(a) ...** For Inspection and Test Requirements, see 8.10.3.3.2(nn). **(b) ...** For Inspection and Test Requirements, see 8.10.3.3.2(l). **(c) ...** For Inspection and Test Requirements, see 8.10.3.3.2(m). **(d) ....** For Inspection and Test Requirements, see 8.10.3.3.2(m). **...**		SPS 318.17087 (11) No comment **(11)** This is a department rule in addition to the requirements in ASME A17.1 section 8.7.3.31.8 (c): All elevators in the building equipped with firefighters' emergency operation shall conform to the requirements in ASME A17.1 section 2.27.8 for switch keys. SPS 318.17087 (12) No comment **(12)** This is a department rule in addition to the requirements in ASME A17.1 section 8.7.3.31.8 (d): All elevators in the building equipped with firefighters' emergency operation shall conform to the requirements in ASME A17.1 section 2.27.8 for switch keys.
8.7.3.31.8(e) thru (g)	**8.7.3.31.8 Emergency Operation and Signaling Devices** **(a)** ... **(e)** Where any of the alterations of (a) through (c) above occur, all new equipment and wiring shall conform to 8.7.3.8 and 2.26.4.2, and all modified equipment and wiring shall conform to 8.7.3.8. Equipment and floors shall be identified as required by Section 2.29 for the elevators in the same group. **(f)** Change in Type of Service (8.7.3.17), Controllers (8.7.3.31.5), Change in Type of Motion Control (8.7.3.31.6), or Change in Type of Operation Control (8.7.3.31.7) requires Emergency Operations and Signaling Devices to be altered, conforming to Section 2.27. **(g)** The requirements of 8.7.3.31.8 (f) shall be permitted to be modified according to the requirements of 8.7.3.31.8. …		No comment
8.7.3.31.9	**8.7.3.31.9 Auxiliary Power Lowering Operation** For Inspection and Test Requirements, see 8.10.3.3.2(oo).		No comment
8.7.3.31.10	**8.7.3.31.10 In-Car Stop Switch.** (c) …. For Inspection and Test Requirements, see 8.10.3.3.2(kk).		No comment
8.7.3.31.11	**8.7.3.31.11 Electrical Protective Devices.** For Inspection and Test Requirements, see 8.10.3.3.2(ll).		No comment
8.7.3.31.12	**8.7.3.31.12 Change of Hydraulic Pump Motor Starter.** **(c)** ... For Inspection and Test Requirements, see 8.10.3.3.2(pp).		No comment
8.7.3.31.13	**8.7.3.31.13 Door Monitoring System.** Where there is an alteration to or addition of a system to monitor and prevent automatic operation of the elevator with faulty door contact circuits on power-operated car doors that are mechanically coupled with the landing doors while the car is in the landing zone, the alteration shall conform to the requirements in 2.26.5. For Inspection and Test Requirements, see 8.10.3.3.2(pp).		This was added here for Hydraulic elevators. This was already in the 2016 code for Traction elevators. This addresses alterations to the Door Monitoring system and does not require installation or addition of the system so this should not add to costs.
8.7.4.1			SPS 318.17087(13) No comment **(13)** Substitute the following wording for the requirements in ASME A17.1 section 8.7.4.1: Where any alteration is made to a rack-and-pinion elevator, the altered portion shall comply with section 4.1. **8.7.4.1 Rack-and-Pinion Elevators.** Where any alteration is made to a rack-and-pinion elevator, the entire installation shall comply with Section 4.1.
8.7.4.2			SPS 318.17087(14) No comment **(14)** Substitute the following wording for the requirements in ASME A17.1 section 8.7.4.2: Where any alteration is made to a screw-column elevator, the altered portion shall comply with section 4.2. **8.7.4.2 Screw-Column Elevators.** Where any alteration is made to a screw-column elevator, the entire installation shall comply with Section 4.2.

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8.7.5.3.			SPS 318.17087(15) No comment **(15)** The requirements in ASME A17.1 section 8.7.5.3 are not included as part of this chapter. **8.7.5.3 Private Residence Elevators.** When there is a change in the building code occupancy classification of a private residence in which a private residence elevator is located, the elevator shall comply with the applicable requirements in Part 2 through Part 4 or Section 5.2.
8.7.5.7	**8.7.5.7 Special Purpose Personnel Elevators.** Where any alteration is made to a special purpose personnel elevator, the ~~entire installation shall comply with Section 5.7~~ alteration shall comply with 8.7.1 and where applicable 8.7.5.7.1 through 8.7.5.7.28.		Much better code for Special Purpose Personnel Elevators (SPPE's)
8.7.5.7.1.1	**8.7.5.7.1.1 Hoistway Enclosure Walls.** Where alterations are made to any portion of a hoistway enclosure wall, that portion which is altered shall conform to 5.7.1.1.		No comment. SPPE mods, continued.
8.7.5.7.1.2	**8.7.5.7.1.2 Floor Over Hoistway.** Where alterations are made to any portion of a floor over hoistway, that portion which is altered shall conform to 5.7.1.2.		No comment. SPPE mods, continued.
8.7.5.7.2	**8.7.5.7.2 Pits.** Alterations made to the pit shall conform to 5.7.2.1 through 5.7.2.8.		No comment. SPPE mods, continued.
8.7.5.7.3	**8.7.5.7.3 Location and Guarding of Counterweights.** Where new counterweights are installed or where counterweights are relocated, their location, guarding, and clearances shall conform to 5.7.3, 5.7.4 and 5.7.5.		No comment. SPPE mods, continued.
8.7.5.7.4	**8.7.5.7.4 Vertical Car and Counterweight Clearances and Runbys.** No alteration shall reduce any clearance or runby below that required by 5.7.4. Existing clearances shall be permitted to be maintained.		No comment. SPPE mods, continued.
8.7.5.7.5	**8.7.5.7.5 Horizontal Car and Counterweight Clearances.** No alteration shall reduce any clearance below that required by 2.5 and 5.7.3.1. Existing clearances shall be permitted to be maintained.		No comment. SPPE mods, continued.
8.7.5.7.6	**8.7.5.7.6 Protection of Spaces Below Hoistways.** Where alterations are made to an elevator or the building such that any space below the hoistway is not permanently secured against access, the affected installation shall conform to 5.7.6.here alterations increase the original building design reactions by more than 5%, they shall conform to 5.7.7.1 through 5.7.7.4.		No comment. SPPE mods, continued.
8.7.5.7.7	**8.7.5.7.7 Means of Access for Machinery Spaces, Machine Rooms, Control Spaces, and Control Rooms.** Any alteration that affects the safe and convenient means of access to a machine room, machinery space, control space, or control room shall conform to 5.7.18.9. to the extent existing conditions permit.		No comment. SPPE mods, continued.
8.7.5.7.8	**8.7.5.7.8 Not Used.**		No comment. SPPE mods, continued.
8.7.5.7.9	**8.7.5.7.9 Machinery and Sheave Beams, Supports, and Foundations.** Where new machinery and sheave beams, supports, foundations, or supporting floors are installed, relocated, or where alterations increase the original building design reactions by more than 5%, they shall conform to 5.7.7.1 through 5.7.7.4.		No comment. SPPE mods, continued.
8.7.5.7.10	**8.7.5.7.10 Entrances and Hoistway Openings.** **(a)** Where all new hoistway entrances are installed, they shall conform to 5.7.8.1 through 5.7.8.6. **(b)** Where one or more, but not all, new hoistway entrances are installed, they shall conform to 5.7.8.1 through 5.7.8.6. **(c)** Where an alteration is made to any hoistway entrance, it shall conform to 5.7.8.1 through 5.7.8.6. **(d)** Where access openings for cleaning are installed, they shall conform to 2.11.1.4.		No comment. SPPE mods, continued.
8.7.5.7.11	**8.7.5.7.11 Hoistway Door locking Devices.**		No comment. SPPE mods, continued.
8.7.5.7.11.1	**8.7.5.7.11.1 Interlocks.** Where the alteration consists of the installation of hoistway door interlocks, the installation shall conform to 5.7.9.~~2~~		No comment. SPPE mods, continued.
8.7.~~2~~.5.7.11.2	**8.7.~~2~~.5.7.11.2 Mechanical locks and Electric Contacts.** Where the alteration consists of the installation of hoistway-door combination mechanical locks and electric contacts, the installation shall conform to 2.12.3.		No comment. SPPE mods, continued.
8.7.~~2~~.5.7.11.3	**8 .7.~~2~~.5.7.11.3 Unlocking Devices.** Where the alteration consists of the installation of hoistway-door unlocking devices, the installation shall conform to requirements 2.12.6 for unlocking devices.		No comment. SPPE mods, continued.
8.7.5.12	**8.7.5.7.12 Not used.**		No comment. SPPE mods, continued.
8.7.5.13	**8.7.5.7.13 Not used.**		No comment. SPPE mods, continued.
8.7.5.14	**8.7.5.7.14 Car Enclosures, Car Doors and Gates, and Car Illumination.**		No comment. SPPE mods, continued.
8.7.5.14.1	**8.7.5.7.14.1** Where an alteration consists of the installation of a new car, the installation shall conform to 5.7.10 and 5.7.11.		No comment. SPPE mods, continued.

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8.7.5.14.2	8.7.5.7.14.2 The following requirements shall be conformed to where alterations are made to existing cars: **(a)** Car enclosures shall conform to 5.7.10.1 and 5.7.10.2. **(b)** Where an alteration is made to a top emergency exit, or where a new one is installed, it shall conform to 5.7.10.4. **(c)** Where an alteration consists of the installation of glass in an elevator car, it shall conform to 5.7.11.3. **(d)** All side emergency exits shall be permanently fixed in the closed position. **(e)** Any alteration to car illumination or lighting fixtures shall conform to 5.7.10.3. **(f)** Where an alteration consists of the installation of a car door or gate on an existing elevator car, the installation shall conform to 5.7.10.5 and 5.7.19.2.15.		No comment. SPPE mods, continued.
8.7.5.7.15	**8.7.5.7.15 Car Frames and Platforms.**		No comment. SPPE mods, continued.
8.7.5.7.15.1	**8.7.5.7.15.1 Alterations to Car Frames and Platforms.** Where alterations are made to a car frame or platform, the frame and platform shall conform to 5.7.11.1 and 5.7.11.2. Where roller or similar-type guide shoes are installed, that allow a definite limited movement of the car with respect to the guide rails, the clearance between the safety jaws and rails of the car shall be such that the safety jaws cannot touch the rails when the car frame is pressed against the rail faces with sufficient force to take up all movement of the roller guides.		No comment. SPPE mods, continued.
8.7.5.7.15.2	**8.7.5.7.15.2 Increase or Decrease in Deadweight of Car.** Where an alteration results in an increase or decrease in the deadweight of the car that is sufficient to increase or decrease the sum of the deadweight and rated load, as originally installed, by more than 5%, the installation shall conform to 5.7.12.		No comment. SPPE mods, continued.
8.7.5.7.16	**8.7.5.7.16 Capacity and Loading.**		No comment. SPPE mods, continued.
8.7.5.7.16.1	**8.7.5.7.16.1 Increase in Rated Load.** Where an alteration involves an increase in the rated load, the installation shall conform to the following: **(a)** Car doors or gates shall be provided at all car entrances. Where new car doors or gates are installed, they shall conform to 5.7.10.5 and 5.7.19.2.15. **(b)** Requirement 5.7.11 **(c)** Requirement 5.7.12. **(d)** Requirement 5.7.13. **(e)** Requirement 5.7.14. **(f)** Requirement 5.7.15.2 and 5.7.15.3. **(g)** Requirement 5.7.16. **(h)** Requirement 5.7.15.1 and 5.7.17. **(i)** Requirement 5.7.18. **(j)** Requirement 8.7.2.9.		No comment. SPPE mods, continued.
8.7.5.7.17	**8.7.5.7.17 Change in Rise or rated speed.**		No comment. SPPE mods, continued.
8.7.5.7.17.1	**8.7.5.7.17.1 Increase or Decrease in Rise.** Where an alteration involves an increase or decrease in the rise, the following requirements shall be conformed to: **(a)** The terminal stopping devices shall be relocated to conform to 5.7.19.2.11. **(b)** Where the increase in rise is less than 4 570 mm (180 in.), an existing winding-drum machine shall be permitted to be retained, provided the drum is of sufficient dimensions to serve the increased rise with not less than one full turn of wire rope remaining on the winding drum when the car or counterweight has reached its extreme limits of travel. **(c)** The bottom and top clearances and runbys for cars and counterweights shall conform to 5.7.4, except as follows: **(1)** Where the increase in rise is at the upper end of the hoistway, the existing bottom car clearance and car and counterweight runby are not required to conform to 5.7.4. However, if existing clearances are less than as required by 5.7.4, they shall not be decreased by the change in rise. **(2)** Where the increase in rise is at the lower end of the hoistway, the existing overhead car and counterweight clearances are not required to conform to 5.7.4. However, if existing clearances are less than as required by 5.7.4, they shall not be decreased by the change in rise. **(3)** Where the decrease in rise is at the lowest end of the rise, the installation shall conform to 5.7.2.4, 5.7.2.5, 5.7.2.6 and 2.21.4.		No comment. SPPE mods, continued.
8.7.5.7.17.2	**8.7.5.7.17.2 Increase or Decrease in Rated Speed.** **(a)** Shall comply with 5.7.12.2 and 5.7.13.		No comment. SPPE mods, continued.
8.7.5.7.18	**8.7.5.7.18 Car and Counterweight Safeties.**		No comment. SPPE mods, continued.
8.7.5.7.18.1	**8.7.5.7.18.1** Where the alteration consists of the installation of new car safeties, the car safeties, car speed governor, and car guide rails shall conform to 5.7.13 and 5.7.17.		No comment. SPPE mods, continued.
8.7.5.7.18.2	**8.7.5.7.18.2** Where the alteration consists of the installation of new counterweight safeties, the counterweight safeties, counterweight speed governor, and counterweight guide rails shall conform to 2.17, 2.18, and 2.23, except as noted in 8.7.2.19.		No comment. SPPE mods, continued.

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8.7.5.7.18.3	8.7.5.7.18.3 Where any alterations are made to existing car or counterweight safeties, the affected safeties, governors, and guide rails shall conform to 5.7.13 and 5.7.17.		No comment. SPPE mods, continued.
8.7.5.7.18.4	8.7.5.7.18.4 Where existing rail reactions are not increased by the installation of new safeties, the existing hoistway construction for bracket support need not be modified.		No comment. SPPE mods, continued.
8.7.5.7.19	8.7.5.7.19 Speed Governors and Governor Ropes. Where any alteration is made to a speed governor, or where a new governor is installed, it shall conform to 5.17.13.1. Where there is a releasing carrier, it shall conform to 2.17.15. Governor ropes shall conform to 5.7.13.2.3.		No comment. SPPE mods, continued.
8.7.5.7.20	8.7.5.7.20 Ascending Car Overspeed and Unintended Car Movement Protection. The requirements of Section 5.7.19.2.2829 and 5.7.19.2.2930 shall be conformed to where a device for protection against ascending car overspeed and unintended car movement is altered or installed.		No comment. SPPE mods, continued.
8.7.5.7.21	8.7.5.7.21 Suspension Means and Their Connections.		No comment. SPPE mods, continued.
8.7.5.7.21.1	8.7.5.7.21.1 Change in Suspension Members. Where the material, grade, number, or size of suspension members is changed, the new suspension members and their fastenings shall conform to 5.7.14. When existing sheaves are retained using suspension members different from those originally specified, the original elevator manufacturer or a licensed professional engineer shall certify the sheave material to be satisfactory for the revised application.		No comment. SPPE mods, continued.
8.7.5.7.22	8.7.5.7.22 Counterweights.		No comment. SPPE mods, continued.
8.7.5.7.22.1	8.7.5.7.22.1 Where alterations are made to any part of a counterweight assembly, except guiding members, the installation shall conform to 5.7.13.5, 5.7.14.3, 5.7.15.2 and 5.7.18.3.		No comment. SPPE mods, continued.
8.7.5.7.23	8.7.5.7.23 Car and Counterweight Buffers. Where alterations are made to car and counterweight buffers, they shall conform to 5.7.16.		No comment. SPPE mods, continued.
8.7.5.7.24	8.7.5.7.24 Guide Rails, Supports, and Fastenings. Where alterations are made to car and counterweight guide rails, guide-rail supports, or guide-rail fastenings, or where the stresses have been increased by more than 5%, the installation shall conform to 5.7.17. Guide rails, supports, fastenings, and joints of different design and construction than those provided for in 5.7.17 shall be permitted to be retained provided they are in accordance with sound engineering practice and will adequately maintain the accuracy of the rail alignment.		No comment. SPPE mods, continued.
8.7.5.7.25	8.7.5.7.25 Driving Machines and Sheaves.		No comment. SPPE mods, continued.
8.7.5.7.25.1	8.7.5.7.25.1 Alterations to Driving Machines and Sheaves. **(a)** Where a driving machine is installed as part of an alteration, the installation shall conform to 5.7.18. **(b)** Where alterations are made to driving machine components, the affected components shall conform to 5.7.18. **(c)** Where an alteration consists of a change in the driving-machine sheave, the suspension ropes and their connections shall conform to 5.7.14. The sheave shall conform to 5.7.18.2 and 5.7.18.3.		No comment. SPPE mods, continued.
8.7.5.7.25.2	8.7.5.7.25.2 Change in Location of Driving Machine. **(a)** Where the location of the driving machine is changed, the installation shall conform to 5.7.18, 2.7.2, 5.7.18.9, 2.7.6.3.1.		No comment. SPPE mods, continued.
8.7.5.7.26	8.7.5.7.26 Terminal Stopping Devices. Where an alteration is made to any terminal stopping device, the installation shall conform to 5.7.19.2.11.		No comment. SPPE mods, continued.
8.7.5.7.27	8.7.5.7.27 Operating Devices and Control Equipment.		No comment. SPPE mods, continued.
8.7.5.7.27.1	8.7.5.7.27.1 Inspection Operation and Inspection Operation with Open Door Circuits. **(a)** Where there is an alteration to or addition of any type of inspection operation [see 2.26.1.4.1(a)], the alteration shall conform to the applicable requirements in 2.26.1.4. **(b)** Where there is an alteration to or addition of car door bypass or hoistway door bypass switches, the alteration shall conform to 2.26.1.5.		No comment. SPPE mods, continued.
8.7.5.7.27.2	8.7.5.7.27.2 Car Leveling or Truck Zoning Devices. Where there is an alteration to or addition of a car leveling device it shall conform to 2.26.1.6.		No comment. SPPE mods, continued.

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8.7.5.7.27.3	**8.7.5.7.27.3 Change in Power Supply.** Where an alteration consists of a change in power supply at the mainline terminals of the elevator motion controller or motor controller, involving one of the following, whichever is applicable: **(a)** change in voltage, frequency, or number of phases **(b)** change from direct to alternating current or vice versa **(c)** change to a combination of direct and alternating current Electrical equipment shall conform to 5.7.19.2. All new and modified equipment and wiring shall conform to 5.7.19.2. Brakes shall conform to 5.17.18.7 and 5.7.18.8. Winding-drum machines shall be provided with final terminal stopping devices conforming to 2.25.3.5 [see also 8.7.2.17.2(b)].		No comment. SPPE mods, continued.
8.7.5.7.27.4	**8.7.5.7.27.4 Controllers.** **(a)** Where a motion controller is installed, without any change in the type of motion control, and without replacing the existing operation control, the installation shall conform to the following: **(1)** Requirements 2.7.2, 8.7.2.7.2, and 2.7.9 for the newly installed equipment **(2)** Requirement 8.7.2.8, 2.26.4.1 and 2.26.4.2 for the newly installed equipment **(3)** Section 2.19, except 2.19.2.2(a)(1) to 2.19.2.2(a)(3) is not required if the Code at the time of the original installation was prior to ASME A17.1-2000 **(4)** Requirement 2.26.9 for the newly installed equipment **(5)** Requirement 2.29 **(b)** Where an operation controller is installed, and the type of operation control, if automatic remains automatic, or, if non-automatic remains continuous pressure, car switch, or other type of operation where the movement or stopping of the car is under the manual control of the operator (non-automatic), and the existing motion control equipment is retained, the installation shall conform to the following: **(1)** Requirements 2.7.2, 8.7.2.7.2, and 2.7.9 for the newly installed equipment **(2)** Requirement 8.7.2.8, 2.26.4.1 and 2.26.4.2 for the newly installed equipment **(3)** Requirement 2.26.9.3.1(d) and (e), 2.26.9.3.2, and 2.26.9.4 for the newly installed equipment **(4)** Requirement 2.29 **NOTE:** Where the installation of an operation control alters emergency operation and signaling devices, the requirements of 8.7.2.28 apply. **(c)** Where both a motion controller and an operation controller are installed without any change in the type of motion control as described in 8.7.2.27.4(a) and without any change in the type of operation control as described in 8.7.2.27.4(b), the installation shall		No comment. SPPE mods, continued.
8.7.5.7.27.4	**(1)** Requirements 2.7.2, 8.7.2.7.2, and 2.7.9 for the newly installed equipment **(2)** Requirement 8.7.2.8, 2.26.4.1 and 2.26.4.2 for the newly installed equipment **(3)** Section 2.19 **(4)** Terminal stopping devices shall conform to 5.7.19.2.11. **(5)** The newly installed operating devices and control equipment shall conform to 5.7.19.2. **(6)** Requirement 2.27.2 applies when emergency power is provided **(7)** In jurisdictions not enforcing NBCC, 2.27.3 through 2.27.9 apply (-a~~a~~) when travel is 8 m (25 ft) or more above or below the designated landing; or (-b~~b~~) on installations when Firefighters' Emergency Operation was required or provided at the time of installation **(8)** in jurisdictions enforcing NBCC, 2.27.3 through 2.27.9 apply only if Firefighters' Emergency Operation was required or provided at the time of installation **(9)** Section 2.29 **(d)** Where a controller for the operation of hoistwaydoors, car doors, or car gates is installed, see 8.7.2.12. **(e)** Where a controller for the elevator operation onemergency or standby power systems		No comment. SPPE mods, continued.

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8.7.5.7.27.5	**8.7.5.7.27.5 Change in Type of Motion Control.** Where there is a change in the type of motion control (the method of controlling acceleration, speed, retardation, and stopping), the installation shall conform to the following: **(a)** Requirements 2.7.2, 8.7.2.7.2, and 2.7.9 for the newly installed equipment **(b)** All new and modified electrical equipment and wiring to 8.7.2.8. **(c)** The protection of the hoistway landing openings shall conform to **(1)** Requirement 2.11.1, except (-aa) existing entrance openings less than 2 030 mm (79.9 in.) in height or 800 mm (31.5 in.) in width are permitted to be retained **(-bb)** Requirement 2.11.1.4 **(2)** Requirements 2.11.2 through 2.11.10, **(3)** Requirements 2.11.11.6 through 2.11.11.8, and 2.11.11.10 **(4)** Requirement 2.11.12.8 **(d)** Section 2.12, except **(1)** a minimum engagement of 6 mm (0.24 in.) is permitted in 2.12.2.4.3 and **(2)** Requirement 2.12.4, where existing door locking devices are being retained **(e)** Section 2.13 **(f)** Car enclosures and car doors or gates shall conform to Section 2.14, except that where existing car enclosures and/or car doors or gates are retained, conformance with the following requirements is not required: **(1)** Requirements 2.14.1.3, 2.14.1.5.1, 2.14.1.6.2, 2.14.1.8, and 2.14.1.9 **(2)** Requirement 2.14.2.1, and 2.14.2.3 through 2.14.2.5 **(3)** Requirements 2.14.2.6(d) and 2.14.2.6(f) **(4)** Requirement 2.14.3 **(5)** Requirements 2.14.4.2.5 if existing interlocks or contacts are retained, 2.14.4.3 and 2.14.4.6 **(6)** Requirement 2.14.5.1, 2.14.5.6, and 2.14.5.8 **(7)** Requirement 2.14.6.2.2 except 2.14.5 shall be as amended in (6)		No comment. SPPE mods, continued.
8.7.5.7.27.5	**(g)** Where conformance to 2.14.1.7.1 is not possible due to existing overhead conditions, an alternative solution, acceptable to the authority having jurisdiction, providing equivalency to 2.14.1.7.1 shall be permitted. **(h)** The car safety, the counterweight safety (where provided), and the governor shall conform to Sections 2.17 and 2.18, except that **(1)** where the safety factors required by 2.17.12.1 cannot be ascertained, rated load testing shall be accepted as demonstration of compliance, and **(2)** the pitch diameter of speed governor sheaves and governor tension sheaves are not required to conform to 2.18.7.4. **(i)** The capacity and loading shall conform to 2.16.8. **(j)** Car overspeed protection and unintended movement protection shall conform to Section 2.19. **(k)** The terminal stopping devices shall conform to Section 2.25. **(l)** The operating devices and control equipment shall conform to Section 2.26. The requirements of 2.26.4.2, 2.26.4.3, and 2.26.4.4 shall not apply to electrical equipment unchanged by the alteration. **(m)** In jurisdictions not enforcing NBCC, emergency operation and signaling devices shall be provided and shall conform to Section 2.27. In jurisdictions enforcing NBCC, the following shall be complied with: **(1)** car emergency signaling devices complying with 2.27.1, and **(2)** emergency operation and signaling devices conforming to 2.27.2 through 2.27.9 where required by NBCC, or a prior edition of CSA B44. **(n)** Equipment and floors shall be identified as required by Section 2.29.		No comment. SPPE mods, continued.

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8.7.5.7.27.6	8.7.5.7.27.6 **Change in Type of Operation Control.** Where there is a change in the type of operation control, from continuous pressure, car switch, or other type of operation where the movement or stopping of the car is under the manual control of the operator, to any form of automatic operation, or vice versa, the installation shall conform to the following: **(a)** Pits to Section 2.2, except 2.2.2.1, 2.2.2.2, and 2.2.2.5. **(b)** Counterweight guarding to Section 2.3. **(c)** Vertical clearances and runbys as required by 8.7.2.4. **(d)** Horizontal car and counterweight clearances as required by 8.7.2.5. **(e)** Requirements 2.7.2, 8.7.2.7.2, 2.7.5, 2.7.6, and 2.7.9 for the newly installed equipment. **(f)** All new and modified electrical equipment and wiring to 8.7.2.8. **(g)** The protection of the hoistway landing openings shall conform to 2.11.1 through 2.11.13, and Sections 2.12 and 2.13. **(h)** Car enclosures and car doors or gates shall conform to Section 2.14, except that where existing car enclosures and/or car doors or gates are retained, conformance with the following requirements is not required: **(1)** Requirement 2.14.1.3, except that with the specified force the required running clearances referenced in 2.14.1.3 are achieved, and 2.14.1.8 **(2)** Requirements 2.14.2.1, 2.14.2.3, and 2.14.2.4 **(3)** Requirements 2.14.4.3 and 2.14.4.6 except that with the specified force, the door or gate will not deflect beyond the line of the car sill **(i)** Where conformance to 2.14.1.7.1 is not possible due to existing overhead conditions, an alternative solution, acceptable to the authority having jurisdiction, providing		No comment. SPPE mods, continued.
8.7.5.7.27.6	**(j)** The car safety, the counterweight safety (where provided), and the governor shall conform to Sections 2.17 and 2.18, except that the pitch diameter ofspeed governor sheaves and governor tension sheavesare not required to conform to 2.18.7. **(k)** The capacity and loading shall conform to Section 2.16. **(l)** Ascending car overspeed and unintended car movement protection shall conform to Section 2.19. **(m)** The terminal stopping devices shall conform to Section 2.25. **(n)** The operating devices and control equipmentshall conform to Section 2.26. The requirements of 2.26.4.2, 2.26.4.3, and 2.26.4.4 shall not apply to electrical equipment unchanged by the alteration. **(o)** Emergency operation and signaling devices shall be provided and shall conform to Section 2.27. **(p)** Equipment and floors shall be identified as required by Section 2.29		No comment. SPPE mods, continued.
8.7.5.7.27.7	8.7.5.7.27.7 **In-Car Stop Switch.** On passenger elevators equipped with nonperforated car enclosures, the emergency stop switch, including all markings, shall be permitted to be removed and replaced by an in-car stop switch conforming to the following: **(a)** It is either key operated or behind a locked cover, and located in or adjacent to the car operating panel. The key shall be Group 1 Security (see Section 8.1). The switch shall be clearly and permanently marked “STOP” and shall indicate the “STOP” and “RUN” positions. When opened (“STOP” position), this switch shall cause the electric power to be removed from the elevator driving-machine motor and brake. **(b)** The device shall meet the requirements of 2.26.4.3.		No comment. SPPE mods, continued.
8.7.5.7.27.8	8.7.5.7.27.8 **Electrical Protective Devices.** Where there is an alteration to or addition of an electrical protective device, it shall conform to 5.7.19.2 for that device.		No comment. SPPE mods, continued.
8.7.25.7.27.9	8.7. 25.7.27.9 **Door Monitoring System.** Where there is an alteration to or addition of a system to monitor and prevent automatic operation of the elevator with faulty door contact circuits on power-operated car doors that are mechanically coupled with the landing doors while the car is in the landing zone, the alteration shall conform to the requirements in 2.26.5.		No comment. SPPE mods, continued.

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8.7.5.7.28	**8.7.5.7.28 Emergency Operations and Signaling Devices.** **(a)** Where an alteration is made to car emergency signaling devices, the alteration shall conform to 5.7.21, except the visual and audible signal required by 2.27.1.1.6(b) shall be permitted to be located inside each car. **(b)** Where an alteration is made to, or consists of the addition of, an emergency or standby power system, the installation shall conform to the requirements of 2.27.2. **(c)** Where an alteration is made to, or consists of the addition of, Firefighters' Emergency Operation, the elevator and all elevators in the same group automatic operation shall conform to 2.27.3 through 2.27.8. **(d)** Where the alteration consists of the addition of an elevator to a group, all elevators in that group shall conform to Section 2.27. **(e)** Where any of the alterations (a) through (d) above occur, all new equipment and wiring shall conform to 8.7.2.8 and 2.26.4.2, and all modified equipment and wiring shall conform to 8.7.2.8. Equipment and floors shall be identified as required by Section 2.29.		No comment. SPPE mods, continued.
8.7.6	**8.7.6 Alterations to Escalators and Moving Walks**		No comment
8.7.6.1.5	**8.7.6.1.5 Construction Requirements.** For Inspection and Test Requirements, see 8.10.4.2.2(a).		No comment
8.7.6.1.6	**8.7.6.1.6 Handrails.** □For Inspection and Test Requirements, see 8.10.4.2.2(b).		No comment
8.7.6.1.7	**8.7.6.1.7 Step System** □**(a)** Any alteration to the step system shall require conformance with 6.1.3.3.5, 6.1.3.5 [except as specified in 8.7.6.1.7(b)], 6.1.3.6 [except as specified in 8.7.6.1.1], 6.1.3.8, 6.1.3.9.4, 6.1.3.10.4, 6.1.3.11, 6.1.6.3.3, 6.1.6.3.9, 6.1.6.3.11, 6.1.6.3.14, and 6.1.6.5. □**(b)** Steps having a width less than 560 mm (22 in.) shall not be reduced in width by the alteration. □For Inspection and Test Requirements, see 8.10.4.2.2(c).		No comment
8.7.6.1.8	**8.7.6.1.8 Combplates.** □For Inspection and Test Requirements, see 8.10.4.2.2(k).		No comment
8.7.6.1.9	**8.7.6.1.9 Trusses and Girders.** Any alterations or welding, cutting, and splicing of ~~the~~ any truss structural member or girder shall conform to 8.7.1.4 and 8.7.1.5. Alterations shall result in the escalator's conforming to 6.1.3.7, 6.1.3.9.1, and 6.1.3.10.1. The installation of a new escalator into an existing truss shall conform to all of the requirements of 6.1. For Inspection and Test Requirements, see 8.10.4.2.2(d).		No comment
8.7.6.1.10	**8.7.6.1.10 Step Wheel Tracks.** □For Inspection and Test Requirements, see 8.10.4.2.2(e).		No comment
8.7.6.1.11	**8.7.6.1.11 Rated Load and Speed.** □For Inspection and Test Requirements, see 8.10.4.2.2(f).		No comment
8.7.6.1.12	**8.7.6.1.12 Driving Machine, Motor, and Brake** □For Inspection and Test Requirements, see 8.10.4.2.2(g).		No comment
8.7.6.1.13	**8.7.6.1.13 Operating and Safety Devices.** □For Inspection and Test Requirements, see 8.10.4.2.2(h).		No comment
8.7.6.1.14	**8.7.6.1.14 Lighting, Access, and Electrical Work.** An alteration to or addition of lighting, access, or electrical work shall conform ~~with~~ to the specific requirements within 6.1.7 for that change. □For Inspection and Test Requirements, see 8.10.4.2.2(l).		No comment
8.7.6.1.15	**8.7.6.1.15 Entrance and Egress.** □For Inspection and Test Requirements, see 8.10.4.2.2(m).		No comment
8.7.6.1.16	**8.7.6.1.16 Controller.** □For Inspection and Test Requirements, see 8.10.4.2.2(i).		No comment
8.7.6.1.17	**8.7.6.1.17 Variable Frequency Drive Motor Control.** Where the alteration consists of the addition of, or alteration to, a variable frequency drive motor control, the installation shall conform to 6.1.6.3.2, ~~and~~ 6.1.6.10.3, and 6.1.6.10.4. For Inspection and Test Requirements, see 8.10.4.2.2(n).		No comment
8.7.6.1.18	**8.7.6.1.18 Addition of Escalator Speed Variation.** □For Inspection and Test Requirements, see 8.10.4.2.2(j)		No comment
8.7.6.1.19	**8.7.6.1.19 Skirt Panels.** Any alteration of a skirt panel or skirt panel supporting components shall conform to 6.1.3.3.6(d), and the person or firm performing the alteration shall verify conformance in accordance with 8.3.15.		No comment
8.7.6.2.5	**8.7.6.2.5 Construction Requirements** □For Inspection and Test Requirements, see 8.10.4.2.2(a).		No comment
8.7.6.2.6	**8.7.6.2.6 Handrails.** □For Inspection and Test Requirements, see 8.10.4.2.2(b).		No comment

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8.7.6.2.7	**8.7.6.2.7 Treadway System.** □For Inspection and Test Requirements, see 8.10.4.2.2(c).		No comment
8.7.6.2.8	**8.7.6.2.8 Combplates.** □For Inspection and Test Requirements, see 8.10.4.2.2(k).		No comment
8.7.6.2.9	**8.7.6.2.9 Trusses and Girders.** Any alterations or welding, cutting, and splicing of ~~the~~ any truss structural member or girder shall conform to 8.7.1.4 and 8.7.1.5. Alterations shall result in the moving walk's conforming to 6.2.3.9, 6.2.3.10.1, and 6.2.3.11.1. The installation of a new moving walk into an existing truss shall conform to all of the requirements of 6.2. For Inspection and Test Requirements, see 8.10.4.2.2(d).		No comment
8.7.6.2.10	**8.7.6.2.10 Track System.** □For Inspection and Test Requirements, see 8.10.4.2.2(e).		No comment
8.7.6.2.11	**8.7.6.2.11 Rated Load and Speed.** □For Inspection and Test Requirements, see 8.10.4.2.2(f).		No comment
8.7.6.2.12	**8.7.6.2.12 Driving Machine, Motor, and Brake.** □For Inspection and Test Requirements, see 8.10.4.2.2(g).		No comment
8.7.6.2.13	**8.7.6.2.13 Operating and Safety Devices.** □For Inspection and Test Requirements, see 8.10.4.2.2(h).		No comment
8.7.6.2.14	**8.7.6.2.14 Lighting, Access, and Electrical Work.** An alteration to or addition of lighting, access, or electrical work shall conform with to the specific requirements within 6.2.7 for that change. For Inspection and Test Requirements, see 8.10.4.2.2(l).		No comment
8.7.6.2.15	**8.7.6.2.15 Controller.** □ □For Inspection and Test Requirements, see 8.10.4.2.2(i).		No comment
8.7.6.2.16	**8.7.6.2.16 Variable Frequency Drive Motor Control.** Where the alteration consists of the addition of, or alteration to, a variable frequency drive motor control, the installation shall conform to 6.2.6.3.2, and 6.2.6.10.3, and 6.2.6.10.4. For Inspection and Test Requirements, see 8.10.4.2.2(n).		No comment
8.7.6.2.17	**8.7.6.2.17 Addition of Moving Walk Speed Variation.** □For Inspection and Test Requirements, see 8.10.4.2.2(j).		No comment
8.7.6.2.18	**8.7.6.2.18 Entrance and Egress.** Any alteration to the entrance or egress end shall comply with 6.2.3.8.1 through		No comment
8.7.6.2.19	**8.7.6.2.19 Skirt Panels.** Any alteration of a skirt panel or skirt panel supporting components shall conform to 6.1.3.3.6(d) and the person or firm performing the alteration shall verify conformance in accordance with 8.3.15.		No comment
8.9.1	**8.13.1 Permanent Plates** Data plates and capacity plates shall *(a)* be made of metal or other durable materials designed to last the life of the equipment. Stick-on foil or paper labels shall not be permitted. *(b)* be securely attached to prevent removal when subjected to a force of 65 N (15 lb). In addition, adhesive-attached plates shall conform to the requirements of UL 969 or CAN/CSA C22.2, whichever is applicable. **8.13.1.1** All lettering and figures required by Code shall either *(a)* be engraved, etched, or cast such that the letters and figures shall remain permanently and readily legible *(b)* conform to either of the following: *(1)* the characters shall be raised or depressed from the plate surface face so as to remain legible even if painted over. *(2)* be provided with a transparent covering that will protect the Code-required data. This covering shall prevent contaminants (such as paint, adhesives, oil, and grease) from permanently adhering to the data plate parent surface. The covering shall be durable enough to withstand the process of contaminant removal. **8.13.1.2** If the plates are exposed to weathering or a chemical atmosphere, then a durable means shall be provided to protect the information from deterioration while permitting the information to be readily read. **8.13.1.3** The use of writing instruments, stamping, and scratching to apply the lettering and figures shall not be permitted. **8.13.1.4** Data plates shall have letters or figures not less than 3 mm (0.125 in.) high.		SPS 318.17089. New requirements for code data plates to meet new 8.13.1 may increase cost. **SPS 318.17089 Code data plate.** Substitute the following wording for the requirements in the introductory paragraph of ASME A17.1 section 8.9: ASME A17.1 section 8.9 contains requirements for all new equipment within the scope of this chapter. The Code Data Plate shall conform to 8.13.1.
8.10.1.1.1 and 8.10.1.1.3			SPS 318.170810(1). No comment **SPS 318.170810 Acceptance inspections and tests, general requirements. (1)** PERSONS AUTHORIZED TO MAKE ACCEPTANCE INSPECTIONS AND TESTS. Substitute the following wording for the requirements in ASME A17.1 sections 8.10.1.1.1 and 8.10.1.1.3: All acceptance inspections shall be performed by licensed elevator inspectors.
			SPS 318.170810(2). No comment **(2)** PERSONS INSTALLING OR ALTERING EQUIPMENT. This is a department rule in addition to the requirements in ASME A17.1 section 8.10.1.1.2: The installation may not be placed in service until authorized by the department or agent municipality.

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			SPS 318.170810(3). No comment **(3)** ACCEPTANCE TEST REPORTS. This is a department rule in addition to the requirements in ASME A17.1 section 8.10.1.1.5: The results of acceptance tests including those required to be witnessed by the licensed elevator inspector shall be recorded on forms of the department or agent municipality. Where witnessed, forms are not required to be submitted to the department or agent municipality. **Note:** Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P. O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.
8.10.1.3	**NOTES (8.10.1.3):** **(1)** The ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving Walks (see Preface, ASME Elevator Publications) ~~is a guide for inspections and tests~~ covers recommended inspection and testing procedures. **(2)** References to "Items" of the ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving Walks and to the requirements of this Code are indicated in parentheses as a convenient reference to the applicable testing procedures and requirements. ~~It is important to understand that suggested test and inspection methodologies represent an approach but are neither exclusive nor comprehensive~~. See the A17.2 Preface and Scope for additional information.		No comment
8.10.2.2.1	**8.10.2.2.1 Inside the Car** **(i)** Power Closing of Doors or Gates (2.13.3) (Item 1.9): Test Closing Time Per ~~Data~~ Door Marking Plate (2.13.4.2.4) **(j) Power Opening of Doors or Gates** (Item 1.10) **(1)** ... **(2) Leveling Zone ~~(2.16.1.6.3)~~ and Leveling Speed (2.16.1.6.3).** Check that the leveling zone does not exceed the maximum allowable distance. Check that the leveling speed does not exceed 0.75 m/s (150 ft/min). In addition, for static control elevators, the person or firm installing the equipment shall provide a written checkout procedure and demonstrate that the leveling speed with the doors open is limited to a maximum of 0.75 m/s (150 ft/min) and that the speed-limiting (or speed monitor) means is independent of the normal means of controlling this speed (2.26.1.6.6).		No comment
8.10.2.2.2 (ff)	**8.10.2.2.2 (ff)** **(ff)** Terminal Stopping Devices (Item 2.28). The following tests are performed with an empty car in the up direction and the car loaded with rated load or 125% of rated load in the down direction (see 2.16.8): **(1)** Test the normal terminal stopping device for conformance with 2.25.2 by making inoperative the normal stopping means. The final terminal stopping device and the emergency terminal speed-limiting device shall remain operative. **(2)** Test the emergency terminal speed-limiting device for conformance with 2.25.4.1. **(3)** For static control elevators, see 2.25.4.2. (4) Test the emergency terminal stopping device for conformance with 2.25.4.2. [See also 8.10.2.2.3(g) and 8.10.2.2.3(h).]		No comment
8.10.2.2.2 (tt)	**8.10.2.2.2(tt)** 8.10.2.2.2(tt) The means to view the USI on site. See 2.26.1.7.3		USI - Unique Software Identifier, no other comment
8.10.2.2.2 (ii)	**8.10.2.2.2 (ii) Car and Counterweight Safeties (Item 2.29)** (1) ... (a) ... **(-b)** The car speed at which the governor trips shall be determined by means of a tachometer or other device designed to measure car speed including controllers, service tools and accelerometers. ~~and, if necessary,~~ (-c) The governor tripping speed shall be adjusted within the range specified in 2.18.2.and the means of adjustment shall be sealed. ~~shall be replaced or adjusted to conform to 2.18.2.~~ ~~(c) If adjustments to the tripping speed are made, the governor shall be sealed immediately following the test. Governors shall be sealed, as required by 2.18.3.~~ **(d)** The operation of the governor overspeed switch and the car safety-mechanism switch shall be tested to determine conformance with 2.18.4 and 2.17.7. **(e)** ...		No comment

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8.10.2.2.2 (ii) (1) (f)	**(-f)** A metal tag with the rule number, test date, and name of the person/firm performing the test shall be attached to the releasing carrier or where the governor rope attaches to the safety. The permanent test record required by 8.10.1.1.5 shall be completed.		No comment
8.10.2.2.2 (ii) (4)	**8.10.2.2.2 (ii) (4) Types B and C Safeties** **(a)** Types B and C safeties shall be subjected to an overspeed test, with the suspension ropes attached, by gradually increasing the speed of the car until the governor causes application of the safety. Safeties of elevators equipped with AC driving machine motors, or other systems that cannot be adjusted to overspeed and where the car with its rated load does not cause sufficient overspeed to trip the governor when the machine brake is released ~~to trip the governor jaws~~, the test shall ~~be tested by~~ made by operating the car at its rated speed in the down direction and manually tripping governor ~~jaws by hand~~; see 8.10.2.2.2(hh) for test of governor tripping speed. **(b)** The overspeed switch on both the car and counterweight ~~the~~ governors shall be inoperative during the overspeed test. ~~In order to ensure that the safety will retard the car with the minimum assistance from the elevator driving machine and minimize the development of slack rope and fallback of the counterweight, the switch on the car operated by the car safety mechanism shall, for the duration of the test, be temporarily adjusted to open as close as possible to the position at which the car safety mechanism is in the fully applied position.~~ Since the counterweight safety does not have a safety mechanism switch, the circuit that would remove power from the driving machine motor and brake must be opened as soon as the elevator stops to minimize slack rope and fallback of the car. Where application of the emergency brake required by 2.19.3, occurs, the means to actuate the emergency brake, for the duration of the test, shall be temporarily disabled prevent it assistance in stopping.		No comment
8.10.2.2.2 (ii) (4)	**8.10.2.2.2 (ii) (4)** **(-c)** The stopping distances for Type B safeties shall conform to 2.17.3, and shall be determined by measuring the length of the marks made by the safety jaws or wedges on both sides of each car guide rail, deducting the length of the safety jaw or wedge used, and taking the average of the four readings. The maximum and minimum stopping distances shown in table 2.17.3 are for the maximum car governor tripping speed. Therefore these may not match the actual tripping speed of the governor. Table 2.29.2(b) in A17.2 is recommended.		No comment
8.10.2.2.3 (k)	**8.10.2.2.3 Top-of-Car** **(k)** Data Plate (2.16.3.3 ~~and~~ 2.20.2, and 2.24.2.3.5) (Item 3.27)		No comment
8.10.2.2.7	**8.10.2.2.7 Working Platforms** **(a)** Working Platforms (2.7.5.3 and 2.7.5.4) **(1)** operating instructions (~~8.6.10.8~~ 8.6.11.9) **(b)** Retractable Stops (2.7.5.5) **(1)** retractable stop electrical device (2.26.2.37) **(c)** Inspection Operation (2.26.1.4.4)		No comment

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
8.10.2.3.2 - 1	**8.10.2.3.2** Tests shall be performed when the following alterations are made: **(a)** Where the alteration consists of the addition of or alteration to power operation to the door system (see 8.7.2.12), tests shall be performed as specified in 8.10.2.2.1(a), (h), (i), (j), and (t); 8.10.2.2.3(c)(3); 8.10.2.2.3(j) and (w); 8.10.2.2.4(b), and (d) through (g); ~~and 8.10.2.2.6.~~ ..... **(d)** Where an alteration results in the increase in deadweight of the car that is sufficient to increase the sum of the deadweight and the rated load, as originally installed, by more than 5% (see 8.7.2.15.2), tests shall be performed as specified in 8.10.2.2.1(p) and (q) (if installed); 8.10.2.2.2(v), (w), (x), (z), (aa), (bb), (cc)(3), (ff), (ii), (jj), and (kk); 8.10.2.2.3(k) and (x); and 8.10.2.2.5(c) and (i). ....□ **(g)** Where an alteration involves an increase in the rated load (see 8.7.2.16.4), tests shall be performed as specified in 8.10.2.2.1(c), (p), ~~and~~ (q) (if installed) and (s); 8.10.2.2.2(s), (t), (v) through ~~(bb), (cc)~~ (3) (dd), (ff), (hh), (ii), (jj), and (kk); 8.10.2.2.3(d), (e), (g), (h), (i), (k), (m), (n), ~~and~~ (x), and (cc); 8.10.2.2.4(e); and 8.10.2.2.5(b) through (e), ~~(c) and~~ (i), and (j). ... **(i)** Where the location of the driving machine has been changed (8.7.2.25.2), for alterations as described in 8.7.2.25.2(a), tests shall be performed as specified in 8.10.2.2.2(i), (n), (u), and (cc)(3). For alterations as described in 8.7.2.25.2(b), additional tests shall be performed as specified in 8.10.2.~~2~~.3.2(n). **(j)** Where an alteration increases the rated speed (8.7.2.17.2), ~~travel (8.7.2.17.1)~~, rated load (8.7.2.4), or type of service (8.7.2.16.1), ~~class of loading (8.7.2.16.2), or from freight to passenger (8.7.2.16.3),~~ tests shall be performed as specified in 8.10.2.2.1(c), (p), (q), and (s); 8.10.2.2.2(s), (t), (v), (aa), (bb), (cc), (dd), (ff), (hh), (ii), (jj), and (kk); 8.10.2.2.3(d), (e), (g), (h), (i), (k), (m), (n), and (cc); 8.10.2.2.4(e); and 8.10.2.2.5(b) through (e) and (j).		**SPS 318.170810(4).** No comment **(4)** REPLACEMENT OF SPEED GOVERNOR INSPECTION AND TEST REQUIREMENTS. This is a department rule in addition to the requirements in ASME A17.1 section 8.10.2.3.2 (f): Where a speed governor is replaced, in accordance with 8.6.3.6.1, tests shall be performed as specified in ASME A17.1 sections 8.10.2.2.2 (hh) and 8.6.4.20.2 (b).
8.10.2.3.2 - 2	**(l)** Where an alteration is made to a standby or emergency power system (see 8.7.2.28(b)), tests shall be performed as specified in 8.10.2.2.1(q) and 8.10.2.2.4(k). **(m)** Where an alteration is made to firefighters' service operation (see 8.7.2.28(c) or 8.7.2.28(d)), tests shall be conducted as specified in 8.10.2.2.6. **(n)** Where an alteration increases or decreases the rise (see 8.7.2.17.1), tests shall be performed as specified in 8.10.2.2.1(c), (p), (q), and (s); 8.10.2.2.2(s), (t), (v), (aa), (bb), (cc), (dd), (ee) ~~and~~, (ff), ~~(hh), (ii), (jj), and (kk)~~; 8.10.2.2.3(d) through ~~(h)~~ (i), (k), (m), (n), (t), (w), ~~and~~ (y) and (cc); 8.10.2.2.4(b), (c), (e) through (h), and (j); and 8.10.2.2.5(a), (b) through, ~~(d)~~, (e), (g), ~~and~~ (h) and (j). **(o)** Where an alteration is made such that a hoistway entrance is added (see 8.7.2.10.1), tests shall be performed as specified in 8.10.2.2.1(a), (c)(3), (h), (i), (j), (r), and (t); 8.10.2.2.2(gg)(2); 8.10.2.2.3(c)(3), (o), and (w); 8.10.2.2.4(b) through (g), and (j); ~~and 8.10.2.2.6.~~ **(p)** Where an alteration is made such that there is a change in class of loading (see 8.7.2.16.2), tests shall be performed as specified in 8.10.2.2.1(c), (p), (q), and (s); 8.10.2.2.2(s), (t), (v), (w), (aa), (bb), (cc), (dd), (ff), (hh), (ii), ~~and~~ (jj), and (kk); and 8.10.2.2.3(d), (e), (g), (h), (i), (k), (m), (n), and (cc); 8.10.2.2.4(e)); and 8.10.2.2.5 (b) through (e), (j), and (i)(1). **(q)** Where an alteration is made that results in a freight elevator being permitted to carry passengers (see 8.7.2.16.1 and 8.7.2.16.3), tests shall be performed as specified in 8.10.2.2.1(a), (c), (g), (i), (j), (l), (p), ~~and~~ (q) , and (s); and 8.10.2.2.2(s), (t), (v), (aa), (bb), (cc), (dd), (ff), (hh), (ii), (jj)~~(2)~~, and (kk). 8.10.2.2.3(d), (e), (g), (h), (i), (k), (m), (n), and (cc); 8.10.2.2.4(e); and 8.10.2.2.5(b) through (e) and (j). **(s)** Where a controller is installed as part of an alteration without any change to the type of operation or control (see 8.7.2.27.4), tests shall be performed as specified in		No comment

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
8.10.2.3.2 - 3	(v) Where alteration are made to driving machine components (8.7.2.25.1(b)), the affected components shall be tested as specified in 8.10.2.2.2 (r) and (s). (w) Where alteration consists of a change in driving machine sheave (8.7.2.25.1(c)), the affected components shall be tested as specified in 8.10.2.2.2 (cc), (ee) and 8.10.2.2.3 (bb). (x) Where alteration consists of a change to the Pit (8.7.2.2), the affected components shall be tested as specified in 8.10.2.2.5 (a) and (b). (y) Where alteration consists of a change to the vertical car and counterweight clearances (8.7.2.4), the affected components shall be tested as specified in 8.10.2.2.3 (d), (e), (f), and (t); and 8.10.2.2.5 (b). (z) Where alteration consists of a change to the horizontal car and counterweight clearances (8.7.2.5), the affected components shall be tested as specified in 8.10.2.2.3 (d), (e), (f), and (t); and 8.10.2.2.5 (b). (aa) Where alteration consists of a change to the protection of spaces below hoistways (8.7.2.6), the affected components shall be tested as specified in 8.10.2.2.4 (e), and (h). (bb) Where alteration consists of a change to the machinery spaces, machine rooms, control spaces and control rooms (8.7.2.7); the affected components shall be tested as specified in 8.10.2.2.2 (a) through (p). (cc) Where alteration consists of a change to the Electrical Equipment and Wiring (8.7.2.8); the affected components shall be tested as specified in 8.10.2.2.2 (q) and (r). (dd) Where alteration consists of a change to the hoistway door locking devices, access switches and Parking Devices (8.7.2.11); the affected components shall be tested as specified in 8.10.2.2.4(d) and (e). (ee) Where alteration consists of a change to the Door re-opening device (8.7.2.13); the affected components shall be tested as specified in 8.10.2.2.1 (i) and 8.10.2.2.4(f). (ff) Where alteration consists of a change to the Car Enclosures, Car Doors and Gates and Car Illumination; (8.7.2.14); the affected components shall be tested as specified in 8.10.2.2.1 (e), (k) through (m).		No comment
8.10.2.3.2 (gg) - (rr)	**(gg)** Where alteration consists of a change to the Ascending Car/Uncontrolled Motion Protection (8.7.2.20); the affected components shall be tested as specified in 8.10.2.2.2 (jj). **(hh)** Where alteration consists of a change to the Suspension Means (8.7.2.21); the affected components shall be tested as specified in 8.10.2.2.2 (cc) and (ee). **(ii)** Where alteration consists of a change to the Counterweights (8.7.2.22); the affected components shall be tested as specified in 8.10.2.2.3 (e), (x), (ii), (jj), and (kk). **(jj)** Where alteration consists of a change to the Inspection Operation and Inspection Operation with Open Door Circuits (8.7.2.27.1); the affected components shall be tested as specified in 8.10.2.2.3(c). **(kk)** Where alteration consists of a change to the Car Leveling or Truck Zoning Devices (8.7.2.27.2); the affected components shall be tested as specified in 8.10.2.2.3(j). **(ll)** Where alteration consists of a change to the Change in Power Supply (8.7.2.27.3); the affected components shall be tested as specified in 8.10.2.2.2 (r), (s) and (t). **(mm)** Where alteration consists of a change to the In Car Stop Switch (8.7.2.27.7); the affected components shall be tested as specified in 8.10.2.2.1(b)(2). **(nn)** Where alteration consists of a change to an Electrical Protective Device (8.7.2.27.8); the affected components shall be tested as specified in 8.10.2.2.2 (t) for that device. **(oo)** Where alteration consists of a change to the Door Monitoring System (8.7.2.27.9); the affected components shall be tested as specified in 8.10.2.2.1(t). **(pp)** Where alteration consists of a change to the Car Emergency Signal/Alarm (8.7.2.28(a)); the affected components shall be tested as specified in 8.10.2.2.1(f). **(qq)** Where alteration consists of a change to the Car Frame and Platforms (8.7.2.15.1); the affected components shall be tested as specified in 8.10.2.2.1(d), (s); 8.10.2.2.3(x); and 8.10.2.2.4(a); and 8.10.2.2.5(i) and (j)(3). **(rr)** Where alteration consists of a change or addition of Car Top Railing (8.7.2.14.5); the affected components shall be tested as specified in 8.10.2.2.3(c)(2) and (d).		No comment
8.10.3.2.2(jj)	8.10.3.2.2(jj) **(jj)** The means to view the USI on site. See 3.26.11.3		Code may be needed for them in paper form only

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8.10.3.2.5	**8.10.3.2.5 Pit** **(d)** Car Buffer (3.6.3, 3.6.4, and 3.22.1) (Item 5.9) **(n)** A plunger gripper, where provided, shall be inspected and tested at rated load at not less than operating speed in the down direction. The means for the actuation of the gripper shall be verified by overspeeding the car or by alternative means. Where multiple means of actuation are provided, each means shall be individually tested. The date of this test shall be permanently marked on the marking plate plunger gripper ~~data~~ marking plate and recorded in the acceptance test ~~tag~~ records. (see 3.17.3.8 and 8.10.1.1.4) [see 3.17.3.8(e)]. (Item 5.17.3). The person or firm installing or maintaining the equipment shall provide a written procedure in the Onsite Documentation [see 8.6.1.2.2(b)(1)] and demonstrate that the plunger gripper shall function as required by 3.17.3.		No comment
8.10.3.2.7	**8.10.3.2.7 Working Platforms** **(a)** Working Platforms (3.7.1, 2.7.5.3, and 2.7.5.4) **(1)** operating instructions (~~8.6.10.8~~ 8.6.11.9) **(b)** Retractable Stops (3.7.1 and 2.7.5.5) **(1)** retractable stop electrical device (2.26.2.37) **(c)** Inspection Operation (3.26.2)		No comment
8.10.3.3.2 - 1	**8.10.3.3.2** Tests shall be performed when the following alterations are made: **(a)** Where the alteration consists of the addition of power operation to the door system (8.7.3.12), tests shall be performed as specified in 8.10.3.2.1(a), (h), (i), (j), and (t); 8.10.3.2.3(c)(2) and (r); 8.10.3.2.4(b) and (d) through (g); ~~and 8.10.2.2.6.~~ .... **(d)** Where an alteration results in an increase in the deadweight of the car that is sufficient to increase the sum of the deadweight and the rated load, as originally installed, by more than 5% (8.7.3.21), tests shall be performed as specified in 8.10.3.2.1(a), (c), (g) through (k), (q), (r), (s), and (t); 8.10.3.2.2(m), (n), (x), and (y); and 8.10.3.2.3(c) through (h), (u), (y), and (cc); and 8.10.2.2.2(ii) if safeties are provided; 8.10.2.2.5(c) if oil buffers are provided; and 8.10.3.2.1(q), 8.10.3.2.2(m), (n), (q), and (r), 8.10.3.2.3(h) and (cc); and 8.10.3.2.5(b), (d), and (l). ..... **(g)** Where an alteration involves an increase in the rated load (8.7.3.20), tests shall be performed as specified in 8.10.2.2.2(ii); and 8.10.3.2.1(a), (c), (g) through (k), (q), (r), (s), and (t); and 8.10.3.2.2(m), (n), (x), and **(y)**; 8.10.3.2.3(c) through (h), (o), **(u)** if safeties are provided, (y), and (cc); and 8.10.2.2.5(c) if oil buffers are provided, and as specified in 8.10.3.2.1(p), (q)(1), 8.10.3.2.2(m), (n), (r), and 8.10.3.2.3(h) and (cc) and; 8.10.3.2.5(b), (d), and (l). ..... **(j)** Where an alteration increases the rated speed (8.7.3.22.2), ~~increases the rated load (8.7.3.20), increases the weight of the car (8.7.3.21)~~ , changes travel (8.7.3.22.1), changes the type of service (8.7.3.17), changes the class of loading (8.7.3.18), or changes from freight to passenger (8.7.3.19), tests shall be performed as specified in 8.10.3.2.1(a), (c), (g) through (k), (q), (r), (s), and (t); 8.10.3.2.2(m), (n), (x), and (y); 8.10.3.2.3(c) through (h), (o), (u), (y), and (cc); and 8.10.3.2.5(b), (d), and (l).		No comment

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
8.10.3.3.2 - 2	**(n)** Where an alteration is made to the plunger or cylinder (8.7.3.23.1, 8.7.3.23.2, or 8.7.3.23.3), tests shall be performed as specified in ~~8.10.3.2.2(m), (n), (o), (r), and (s)~~ 8.10.3.2.2(t) through 8.10.3.2.2(v), 8.10.3.2.2(y), 8.10.3.2.2(z), 8.10.3.2.3(d), 8.10.3.2.3(cc), 8.10.3.2.5(b), and 8.10.3.2.5(c). **(o)** Where an existing control valve is replaced with a valve of a different type (see 8.7.3.24), or where relief, ~~or~~ check, shutoff, manual lowering, or overspeed valves or the supply piping and fittings are replaced (8.7.3.24), tests shall be performed as specified in 8.10.3.2.2(t) through 8.10.3.2.2(v), 8.10.3.2.2(y), and 8.10.3.2.3(cc). **(q)** Where an alteration is made that results in a new hoistway door, car door, or car gate controller without any change to the operation or control [8.7.3.31.5(~~b~~ d)], tests shall be performed as specified in 8.10.2.2.2(j) and 8.10.3.2.2(s)(1), (s)(2), (s)(3), and (s)(5). **(r)** Where an alteration is made that results in a change in the type of motion control (8.7.~~2.27.5~~3.31.6), tests shall be performed as specified in 8.10.3.2.1(l); 8.10.3.2.2(j), (l), (m), (t), and (u); and 8.10.3.2.3(j). All electrical protective devices shall be tested for proper operation. **(s)** Where an alteration is made and results in ~~a~~ replacement of a new controller without any change to the type of operation control or motion (8.7.3.31.5), tests shall be performed as specified in 8.10.2.2.1(l)(5), 8.10.2.2.2(q), 8.10.2.2.2(s), 8.10.2.2.2(t)(1), 8.10.2.2.2(t)(2), 8.10.2.2.2(t)(4), ~~and~~ 8.10.2.2.2(ll), ~~and~~ 8.10.2.2.1(t), and 8.10.2.2.3(o). All electrical protective devices shall be tested for proper operation.		No comment
8.10.3.3.2 - 3	**(t)** Where an alteration consists of the addition of a plunger gripper (8.7.3.23.7), tests shall performed as specified in 8.10.3.2.5 (b) and (n). **(u)** Where alteration consists of a change to the Pits (8.7.3.2); the affected components shall be tested as specified in 8.10.3.2.5(a) and (b). **(v)** Where an alteration consists of a change to the vertical car and counterweight clearances (8.7.3.4), the affected components shall be tested as specified in 8.10.3.2.3(d) through 8.10.3.2.3(f), 8.10.3.2.3(t), and 8.10.3.2.5(b). **(w)** Where an alteration consists of a change to the horizontal car and counterweight clearances (8.7.3.5), the affected components shall be tested as specified in 8.10.3.2.3(d) through 8.10.3.2.3(f), 8.10.3.2.3(t), and 8.10.3.2.5(b). **(x)** Where an alteration consists of a change to the protection of spaces below hoistways (8.7.3.6), the affected components shall be tested as specified in 8.10.3.2.2(e) and 8.10.3.2.2(h). **(y)** Where an alteration consists of a change to the machinery spaces, machine rooms, control spaces, and control rooms (8.7.3.7), the affected components shall be tested as specified in 8.10.3.2.2(a) through 8.10.3.2.2(p) and 8.10.3.2.2(aa). **(z)** Where alteration consists of a change to the horizontal car and counterweight clearances (8.7.3.5), the affected components shall be tested as specified in 8.10.3.2.3 (d), (e), (f), and (t); and 8.10.3.2.5 (b). **(aa)** Where alteration consists of a change to the protection of spaces below hoistways (8.7.3.6), the affected components shall be tested as specified in 8.10.3.2.2 (e), and (h). **(bb)** Where alteration consists of a change to the machinery spaces, machine rooms, control spaces and control rooms (8.7.3.7); the affected components shall be tested as specified in 8.10.3.2.2 (a) through (p); and (aa). **(cc)** Where alteration consists of a change to the Electrical Equipment and Wiring (8.7.3.8); the affected components shall be tested as specified in 8.10.3.2.2 (q) and (r). **(dd)** Where alteration consists of a change to the hoistway door locking devices, (8.7.3.11); the affected components shall be tested as specified in 8.10.3.2.4(d) and (e). **(ee)** Where alteration consists of a change to the Door re-opening device (8.7.3.13.2); the affected components shall be tested as specified in 8.10.3.2.1 (i) and 8.10.3.2.4(f).		No comment

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
8.10.3.3.2-4	**(ii)** Where an alteration consists of a change to the anticreep leveling device (8.7.3.31.3), the affected components shall be tested as specified in 8.10.3.2.3(g)(1). **(jj)** Where an alteration consists of a change to the power supply (8.7.3.31.4), the affected components shall be tested as specified in 8.10.3.2.2(r) and 8.10.3.2.2(s). **(kk)** Where an alteration consists of a change to the incar stop switch (8.7.3.31.10), the affected components shall be tested as specified in 8.10.3.2.1(b). **(ll)** Where an alteration consists of a change to an electrical protective device (8.7.3.31.11), the affected components shall be tested as specified in 8.10.3.2.2(s)(4) for that device. **(mm)** Where an alteration consists of a change to the door monitoring system (8.7.3.31.13), the affected components shall be tested as specified in 8.10.3.2.1(t). **(nn)** Where an alteration consists of a change to the car emergency signal/alarm [8.7.3.31.8(a)], the affected components shall be tested as specified in 8.10.3.2.1(f). **(oo)** Where an alteration consists of a change to the auxiliary power lowering operation (8.7.3.31.9), the affected components shall be tested as specified in 8.10.3.2.1(q)(2). **(pp)** Where an alteration consists of a change of the hydraulic pump motor starter (8.7.3.31.12), the affected components shall be tested as specified in 8.10.3.2.2(t).		No comment
8.10.4.1.1	**8.10.4.1.1 External Inspection and Tests** **(p)** Skirt Panels (Items 7.17 and 9.17) **(3)** deflection [6.1.3.3.6(b) or 6.2.3.3.6(c)]. The person or firm installing the equipment shall provide Engineering Test documentation (see 8.3(b)(7) and 8.3.XX) in the On-Site Documentation (see 8.6.1.2.2) to verify conformance with the deflection requirements of not more than 1.6 mm (0.0625 in) under a force of 667 N (150 lbs).		No comment
8.10.4.1.2	**8.10.4.1.2 Internal Inspection and Tests** **(t) Skirt Obstruction Devices** (Item 7.11). The skirt ~~switches~~ obstruction devices shall be tested for conformance with ~~6.1.6.1(h)~~ 6.1.5.3.1 and 6.1.6.3.6.		No comment
8.10.4.2.2	**(i)** When an alteration consists of the alteration of a controller, it shall be inspected and tested for conformance with 8.7.6.1.16 for escalators and 8.7.6.2.15 for moving walks, and tested as specified in 8.10.4.1.1(j), ~~through~~ 8.10.4.1.1(k), ~~and~~ 8.10.4.1.1(m), 8.10.4.1.2(a) through 8.2.4.1.2 (k), 8.10.4.1.2 (m), 8.10.4.1.2 (n), and 8.10.4.1.2(q) through 8.10.4.1.2(t). All required (8.6.1.1.2) operating and safety devices in 6.1.6 or 6.2.6 shall be tested. **(j)** Where a speed variation feature has been added to an escalator per 8.7.6.1.18 or to a moving walk per 8.7.6.2.17, it shall be inspected and tested for conformance with 6.1.4.1.2 or 6.2.4.1.2, respectively.		No comment
8.10.4.2.2 (2)	**8.10.4.2.2** Tests shall be performed when the following alterations are made: **(k)** Where skirt panels or their supports have been altered and the unit was installed or altered under A17.1a-1982 or a later edition, skirt panel deflection shall be verified as specified in 8.10.4.1.1(p)(3). **(l)** Where alterations involve the combplate, it shall be inspected and tested for conformance with 8.7.6.1.8 for escalators and 8.7.6.2.8 for moving walks and tested as specified in 8.10.4.1.1(d)(3), 8.10.4.1.1(g), and 8.10.4.1.2(q). **(m)** Where alterations involve the lighting, access, and electrical work, it shall be inspected and tested for conformance with 8.7.6.1.14 for escalators and 8.7.6.2.14 for moving walks and tested as specified in 8.10.4.1.2(a)(1) through 8.10.4.1.2(a)(4). **(n)** Where alterations involve the entrance and egress, they shall be inspected and tested for conformance with 8.7.6.1.15 for escalators and 8.7.6.2.18 for moving walks and tested as specified in 8.10.4.1.1(d) and 8.10.4.1.1(l).		No comment
8.10.5.10			**SPS 318.170810(5).** No comment **(5)** ELEVATORS USED FOR CONSTRUCTION. This is a department rule in addition to the requirements in ASME A17.1 section 8.10.5.10: The department may conduct a maximum of 2 billable construction use inspections in a 90-day period unless the department finds probable cause for additional inspections.

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
8.11.1.1 and 8.11.1.1.1			SPS 318.170811(1). No comment **SPS 318.170811 General requirements for periodic inspections and witnessing of tests. (1)** PERSONS AUTHORIZED TO PERFORM PERIODIC INSPECTIONS AND TO WITNESS TESTS. Substitute the following wording for the requirements in ASME A17.1 sections 8.11.1.1 and 8.11.1.1.1: Licensed elevator inspectors performing periodic inspections shall comply with the applicable credentialing requirements in ch. SPS 305.
8.11.1.1.2(a)			SPS 318.170811(2). No comment **(2)** PERSONS AUTHORIZED TO PERFORM PERIODIC TESTS. Substitute the following wording for the requirements in ASME A17.1 section 8.11.1.1.2 (a): Licensed or registered elevator personnel performing periodic inspections and tests under ASME A17.1 section 8.11 shall comply with ch. SPS 305. Licensed elevator inspectors may choose to witness tests.
8.11.1.1.2(b)			SPS 318.170811(3). No comment **(3)** PERIODIC TEST REPORTS. Substitute the following wording for the requirements in ASME A17.1 section 8.11.1.1.2 (b): Results of required tests shall be reported by the person performing the test, on approved forms, where required. **Note:** Forms required under this chapter are available on the department's website at https://dsps.wi.gov, or by request from the Department of Safety and Professional Services, P.O. Box 7302, Madison, Wisconsin 53708, or call (608) 266-2112.
8.11.1.2	**NOTES (8.11.1.2):** **(1)** The ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving Walks (see Preface, ASME Elevator Publications) ~~is a guide for inspections and tests~~ covers recommended inspection and testing procedures. **(2)** References to "Items" of the ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving Walks and to the requirements of this Code are indicated in parentheses as a convenient reference to the applicable inspection procedures and requirements. ~~It is important to understand that suggested test and inspection methodologies represent an approach but are neither exclusive nor comprehensive~~. See the A17.2 Preface and Scope for additional information.		No comment
8.11.1.3			SPS 318.170811(4). No comment **(4)** PERIODIC INSPECTION AND TEST FREQUENCY. Substitute the following wording for the requirements in ASME A17.1 section 8.11.1.3: (a) Periodic inspections shall be made at intervals not longer than one year. (b) Except as provided in sub. (8), category 1 periodic tests shall be made at intervals not longer than one year. (c) Category 3 periodic tests shall be made at intervals not longer than 3 years. (d) Category 5 periodic tests shall be made at intervals not longer than 5 years.

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
8.11.1.4			SPS 318.170811(5). No comment **(5)** INSTALLATION PLACED OUT OF SERVICE. Substitute the following wording for the requirements in ASME A17.1 section 8.11.1.4: (a) Placing a conveyance out of service shall include all of the following: 1. Removal of power feed lines from the load side terminals of the electrical disconnecting means. 2. Sealing of the disconnecting means in the open position. 3. Hoistway doors and access doors for an elevator, dumbwaiter, or material lift shall be permanently barricaded or mechanically fastened in the closed position with additional means. Only the landing where the car or platform is located may be secured by using the interlock. **Note:** See ASME A17.1 section 8.1.3 for requirements relating to Group 2 security. 4. Securing the car and counterweights, where provided, to prevent either from falling due to suspension-member or equipment failure. 5. For escalators or moving walks, barricading of entrances to prevent access. Barricades shall be constructed in accordance with the building code. 6. Verification of compliance with subds. 1. to 4. by the department or agent municipality. 7. Written approval of the building code authority where a conveyance is part of a required accessible route in an occupied building. (b) A conveyance placed out of service is no longer required to have periodic inspections or tests. (c) Before the conveyance may be returned to service, a conveyance placed out of service shall have all applicable periodic inspections and tests performed, and shall meet the permit to operate requirements in s. SPS 318.1011.
8.11.1.4			SPS 318.170811(6). No comment **(6)** INSTALLATION CONVERTED TO A TYPE A MATERIAL LIFT. These are department rules in addition to the requirements in ASME A17.1 section 8.11.1.4: (a) Converting an existing elevator to a type A material lift shall include all of the following: 1. Removal of in-car controls. 2. Installations of signs meeting ANSI Z535.4 or its equivalent stating "For Material Only. No Riders Permitted" at the hall controls and the former location of the car operating panel in letters not less than 1/2 inch in height and centered on the back wall of the car 72 inches above the car floor in letters not less than 2 inches in height. 3. Verification of compliance with subds. 1. and 2. by the department or agent municipality. 4. Written approval of the building code authority where the elevator is part of a required accessible route in an occupied building. (b) A conveyance converted to a type A material lift is no longer required to have periodic inspections or tests. **Note:** A type A material lift, although not regulated by the department, is still subject to federal or state regulations regarding occupational safety. Improper maintenance can result in injury or death for persons loading or unloading materials, maintaining equipment, or otherwise occupying the building. (c) Converting a type A material lift back to a conveyance shall include complying with the permit-to-operate requirements in s. SPS 318.1011 and satisfactory completion of all applicable tests and inspections prior to returning the elevator to service.
8.11.2.1.2	**8.11.2.1.2** **(oo)** The USI of the installed software matches the on-site documentation. See 2.26.1.7.1 and 8.6.1.2.2(e).		No comment

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
8.11.2.1.6	**8.11.2.1.6 Firefighters' Emergency** Items 6.3 through 6.5, as applicable.		No comment
8.11.2.1.7	**8.11.2.1.7 Working Platforms** **(a)** Working Platforms (2.7.5.3 and 2.7.5.4) **(1)** operating instructions (~~8.6.10.8~~ 8.6.11.9) **(b)** Retractable Stops (2.7.5.5) **(1)** retractable stop electrical device (2.26.2.37) **(c)** Inspection Operation (2.26.1.4.4)		No comment
8.11.3.1.2	**8.11.3.1.2 Machine Rooms, Machinery Spaces, and Control Rooms/Spaces** **(dd)** The USI of the installed software matches the onsite documentation. See 3.26.11 and 8.6.1.2.2(e).		No comment
8.11.3.1.5	**8.11.3.1.5 Pit** **(d)** Car Buffer (Item ~~5.12~~ 5.9) **(r)** Plunger Gripper (Item 5.17)		No comment
8.11.3.1.7	**8.11.3.1.7 Working Platforms** (a) Working Platforms (3.7.1, 2.7.5.3, and 2.7.5.4) (1) operating instructions (~~8.6.10.8~~ 8.6.11.9) (b) Retractable Stops (3.7.1 and 2.7.5.5) (1) retractable stop electrical device (2.26.2.37) (c) Inspection Operation (3.26.2)		No comment
8.11.4.1	**8.11.4.1 Periodic Inspection and Test Requirements** (k) ~~Skirt Obstruction Devices (Item 7.11)~~ Reserved for Future Use		No comment
8.11.5.4			**SPS 31.170811(8).** Should be a substitution for A17.1 8.11.5.4. **(8)** PERIODIC TESTS OF DUMBWAITERS. Category 1 periodic tests of dumbwaiters shall be made at intervals of not longer than 5 years.
8.11.5.16			N/A Mine elevators
8.12	**8.12 Flood Resistant Design and Construction**		No comment
8.13	**SECTION 8.13 SIGNS, PLATES, AND TAGS** When referenced, Section 8.13 covers the standard materials and properties for safety signs and permanent plates used on devices within the scope of this Code.		No comment
8.13.1	**8.13.1 Permanent Plates** Data plates and capacity plates shall **(a)** be made of metal or other durable materials designed to last the life of the equipment. Stick-on foil or paper labels shall not be permitted. **(b)** be securely attached to prevent removal when subjected to a force of 65 N (15 lb). In addition, adhesive-attached plates shall conform to the requirements of UL 969 or CAN/CSA C22.2, whichever is applicable.		No comment
8.13.1.1	**8.13.1.1** All lettering and figures required by Code shall either **(a)** be engraved, etched, or cast such that the letters and figures shall remain permanently and readily legible **(b)** conform to either of the following: **(1)** the characters shall be raised or depressed from the plate surface face so as to remain legible even if painted over. **(2)** be provided with a transparent covering that will protect the Code-required data. This covering shall prevent contaminants (such as paint, adhesives, oil, and grease) from permanently adhering to the data plate parent surface. The covering shall be durable enough to withstand the process of contaminant removal.		No comment
8.13.1.2	**8.13.1.2** If the plates are exposed to weathering or a chemical atmosphere, then a durable means shall be provided to protect the information from deterioration while permitting the information to be readily read.		No comment
8.13.1.3	**8.13.1.3** The use of writing instruments, stamping, and scratching to apply the lettering and figures shall not be permitted.		No comment
8.13.1.4	**8.13.1.4** Data plates shall have letters or figures not less than 3 mm (0.125 in.) high.		No comment
8.13.2	**8.13.2 Signs** The sign shall conform to the requirements of ANSI Z535.2 or CAN/CSA C22.2-Z321, shall be made of a durable material, and shall be securely fastened.		No comment

CODE SECTION	2019 TEXT	2022 TEXT	DSPS comments
8.13.3	**8.13.3 Marking Plates and Tags** Marking plates and tags shall **(a)** be made of metal or other durable materials designed to last the life of the equipment. **(b)** be securely attached to prevent removal when subjected to a force of 65 N (15 lb). In addition, where used to attach plates or tags, adhesive shall conform to the requirements of UL 969 or CAN/CSA C22.2, whichever is applicable. **(c)** permit the use of writing instruments, stamping, and scratching to apply the lettering and figures. **(d)** be provided with preprinted permanent letters and figures on marking plates and tags with letters		No comment

APPENDIX - CODE COMPARISON 2004 TO 2013 PROGRESSION

CODE SECTION	2013 TEXT
APPENDIX T	**NONMANDATORY APPENDIX T** **BUILDING FEATURES FOR OCCUPANT EVACUATION OPERATION** **HUMAN FACTORS CONSIDERATIONS** Elevator evacuation systems will work most effectively if the components specified reflect state-of-the-art knowledge regarding their performance. Similarly, overall system effectiveness will be maximized if the design incorporates the most up-to-date research on human behavior during emergency evacuation. Designers should specify system components which reflect the latest research on human factors issues, including the following: • Floor Wardens • Will carry out the responsibilities correctly • Occupant Training • Will attend initial training sessions • Will attend ongoing training • Occupants and Lobby Signage / Voice Notification (SVN) • Will take the time to observe the SVN • Will understand the SVN symbols / language • Will follow the SVN instructions • The design of and training on the 2-way communication system will ensure

APPENDIX T	**Occupant Egress Operation (OEO) Requirements Approved for the 2013 A17.1 Code**

• Will have a workable sense of acceptable wait times in the elevator lobby
• Will make the correct decision regarding using elevators or the stairs
• If having decided to leave the elevator lobby, will go to the stairway in an orderly manner

• Occupants and Elevators
• The design of and training on the 2-way communication system will ensure correct use

• Occupants - General
• Will accurately gauge their ability to take the stairs
• Will provide correct assistance to others who cannot use the stairs
• Visitors will follow the lead of trained occupants

Occupant Evacuation Operation has been designed with the assumption that the following building provisions are in place. If Occupant Evacuation Operation is provided in a building which does not meet these, a hazard analysis (e.g. ISO 14798) should be performed.

(1) The building is a high rise business occupancy (office building) and at the time of permitting conforms to the latest editions of the building code (IBC, NFPA 5000 or NBCC) and ASME A17.1/CSA B44.

APPENDIX T	**(2)** The automatic sprinkler system required by the building code is installed in accordance with NFPA 13except that sprinklers in elevator machine rooms and hoistways are prohibited. **(3)** An emergency voice/alarm communications system meeting the requirements of NFPA 72 is provided to inform occupants on each floor of the current situation and actions to take in an emergency. The announcements should include information about whether or not the elevators are available. **(4)** Interior exit stairwell doors automatically unlock, allowing both exit and re-entry, upon any alarm in accordance with the options permitted by the building code. **(5)** The elevator lobby at each floor, with the exception of the elevator discharge level, is enclosed and separated from the remainder of the floor by a smoke barrier. The elevator lobby enclosure door has a ¾ hour fire rating and a vision panel, and closes automatically upon initiation of the building fire alarm system. The lobby is large enough to accommodate 25% of the floor population at 3 sq ft per person and a minimum of one wheelchair space per 50 occupants with each space minimum 30 in. x 48 in. There is direct access from each elevator lobby to an enclosed exit stair. That exit stair enclosure is provided with a second door at each floor that provides access to the floor without requiring travel through the elevator lobby. **(6)** The elevator lobbies, at all floors except the elevator

APPENDIX T	**(7)** The building is designed to control the flow of water that accumulates on the floor as a result of sprinkler operation outside the elevator lobby and hoistway. This water is directed to drains or other means, so it does not enter an elevator hoistway from any side. **(8)** The building has a fire safety and evacuation plan, approved by the authority having jurisdiction, specifically including procedures for evacuation using stairs and elevators, the roles of fire wardens, a routine training program and drills for occupants. Training includes the message that elevators should not be used for evacuation in buildings without Occupant Evacuation Operation. The fire safety plan includes the requirement that elevator lobbies and machine rooms be maintained to minimize fire loads.
APPENDIX T	**Occupant Egress Operation (OEO) Requirements Approved for the 2013 A17.1 Code (CON'T'D)** **(9)** The elevators designated for Occupant Evacuation Operation, machine room air conditioning, variable message sign(s), voice notification, fire alarm, two-way communication and pressurization systems are all supplied with standby or emergency power with sufficient capacity to operate these elevators and these associated systems simultaneously. The standby or emergency power system is minimum Type 60, Class 2, Level 1 in accordance with NFPA 110. The normal power feeders and backup power feeders are separated from each other, and each contained in its own 2 hour fire resistance rated enclosure until they reach the elevator machine room. **(10)** A two-way voice communications system is installed, allowing communications between the fire command center and each elevator lobby.