

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

Attachment No. 1

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PROPOSED STATE STANDARD,
TITLE 8, CHAPTER 4

Amend Subchapter 6 to read:

Subchapter 6. Elevator Safety Orders

Group I. Administrative Regulations

Group I regulations apply to conveyance elevator installations covered by Group II, and Group III, Group IV regulations and to new conveyances covered by Group IV regulations.

Article 1. Application

Amend section 3000. As Follows:

* * * * *

§ 3000. Application.

(a) Where Applicable. The Elevator Safety Orders are applicable to elevators in the State of California except:

- (1) ~~Elevators~~ Conveyances under the jurisdiction of the United States government.
- (2) ~~Elevators~~ Conveyances located in a single-unit private home and not accessible to the public.
- (3) ~~Elevators~~ Conveyances located in a multiunit residential building serving no more than two dwelling units and not accessible to the public.

EXCEPTION TO (a)(3): See section 3001.1~~(b)~~(5).

Note: Unless otherwise designated in this subchapter, the term “Division” refers to the current Division of Occupational Safety and Health or any of its predecessors including the former Division of Industrial Safety or the Division of Occupational Safety and Health Administration. Reference to the former Division of Industrial Safety or Division of Occupational Safety and Health Administration in these orders is meant to refer to their successor, the Division of Occupational Safety and Health, or any subsequent successor agency.

~~(Title 24, Part 7, Section 7-3000(a))~~

(b) Use and Precedence of Orders.

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(1) When ASME A17.1-1996, Safety Code for Elevators and Escalators, is cited or incorporated by reference in these Orders, it shall mean the ~~1996~~ edition of ASME A17.1 adopted by the Group as indicated in Table 1, and shall be referred to as ASME A17.1-~~1996~~, unless otherwise indicated.

(2) The Title 8, Chapter 4, Subchapter 6, Elevator Safety Orders shall apply if any difference exists between the Elevator Safety Orders and ASME A17.1-1996, ASME A18.1 or any other code, document or standard referenced by a Group in ~~ASME A17.1-1996~~ Table 1. Where a specific provision varies from a general provision, the specific most protective of the two provisions shall apply.

(3) If a section in the Title 8, Chapter 4, Subchapter 6, Elevator Safety Orders makes a cross-reference to a section, rule or table in ASME A17.1-1996 or ASME A18.1, such cross-referencing shall be that which is shown in ASME A17.1-1996 or ASME A18.1 unless the referenced section, rule or table has been amended/modified in the Elevator Safety Orders.

(4) If a section, rule, or table in ASME A17.1-1996 or ASME A18.1 makes a cross-reference to another section, rule or table in ASME A17.1-1996 or ASME A18.1, such cross-referencing shall be that which is shown in ASME A17.1-1996 or ASME A18.1, ASME unless the referenced section, rule or table has been amended in the Elevator Safety Orders.

(5) When ASME A18.1, Safety Standard for Platform Lifts and Stairway Chairlifts, is cited or incorporated by reference in these Orders, it shall mean the edition of ASME A18.1 adopted by the Group as indicated in Table 1, and shall be referred to as ASME A18.1, unless otherwise indicated.

(Title 24, Part 7, Section 7-3000(b))

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Table 1:

<u>Group</u>	<u>Type of Conveyance (see 3000(c))</u>	<u>Adopted Code</u>	<u>Conveyances for which an installation or alteration contract was signed on or after the “effective” date, but before the “end” date.</u>	
			<u>Effective</u>	<u>End</u>
<u>II</u>	<u>3000(c)(1),(2),(3),(4),(5),(6),(7),(8),(9),(10),(11),(12),(13),(14),(15)</u>	<u>Group II Elevator Safety Orders</u>	<u>See Note 1</u>	<u>10/25/98</u>
<u>III</u>	<u>3000(c)(1),(2),(3),(4),(5),(6),(7),(8),(9),(12),(15)</u>	<u>ASME A17.1-1996</u>	<u>10/25/98</u>	<u>5/1/08</u>
	<u>3000(c)(10),(11),(13),(14),(18)</u>	<u>Group II Elevator Safety Orders</u>		
<u>IV</u>	<u>3000(c)(1),(2),(5),(6),(8),(9),(16),(17),(18)</u>	<u>ASME A17.1-2004</u>		
	<u>3000(c)(10),(11),(13),(14)</u>	<u>Group II Elevator Safety Orders</u>	<u>5/1/08</u>	<u>TBD</u>
	<u>3000(c)(18)</u>	<u>ASME A18.1-2003</u>		

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<u>V</u>	<u>3000(c)(1),(2),(5),(6),(8), (9),(16),(17),(18)</u>	<u>ASME A17.1-2013</u>	<u>TBD</u>	<u>Current</u>
	<u>3000(c)(10),(11),(13)</u>	<u>Group II Elevator Safety Orders</u>		
	<u>3000(c)(18)</u>	<u>ASME A18.1-2011</u>		

Note:

1) Italicized paragraphs, sentences, or phrases apply to all existing elevators while non-italicized apply to elevators installed after 1970 or after the date the regulation was adopted.

(Title 24, Part 7, Section 7 3000(c))

(c) ~~Devices-Conveyances~~ Included. The ~~devices conveyances~~ covered by the regulations of the Elevator Safety Orders are included under the term “~~elevator conveyance~~” as used in the Labor Code. These orders apply to the following:

- (1) Power-cable driven passenger and freight elevators / ~~electric elevators covered by regulations of Articles 7, 8, 20, and 21.~~
- (2) Hydraulic passenger and freight-elevators ~~covered by regulations of Articles 9 and 22.~~
- (3) Power and hand sidewalk elevators ~~covered by regulations of Articles 10 and 23.~~
- (4) Hand passenger and freight elevators ~~covered by regulations of Articles 11 and 24.~~
- (5) Power and hand dumbwaiters ~~covered by regulations of Articles 12 and 25.~~
- (6) Material lifts and dumbwaiters with automatic transfer devices ~~covered by regulations of Articles 12.1 and 31.~~
- (7) Inclined elevators ~~covered by regulations of Articles 12.2 and 34.~~
- (8) Escalators ~~covered by regulations of Articles 13 and 26.~~

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- (9) Moving walks ~~covered by regulations of Articles 14 and 27.~~
- (10) Hand power man platforms ~~covered by regulations of Article 16.~~
- (11) Manlifts ~~covered by regulations of Article 17.~~
- (12) Screw- driven / column passenger and freight elevators ~~covered by the regulations of Articles 12.6 and 35.~~
- (13) Vertical or inclined reciprocating conveyors ~~covered by regulations of Article 12.5.~~
- (14) Special access lifts ~~covered by regulations of Articles 15 and 36.~~
- (15) Special-purpose personnel elevators / special-purpose elevators ~~covered by regulations of Article 12.3.~~
- ~~(16) Special-purpose elevators covered by regulations of Article 32.~~
- (16) Elevators with Other Types of Driving Machines.
- (17) Special Application Elevators.
- (18) Platform Lifts and Stairway Chairlifts.

(d) ~~Devices~~ Conveyances Excluded. These orders do not apply to the following:

- (1) Belt, bucket, scoop, roller, or similar inclined or vertical conveyors, or other types of automated conveyor systems. See Section 3000(c)(13).
- (2) Tiering or piling machines, sometimes called stackers, used for loading or stacking material.
- (3) Equipment for feeding or positioning materials at machine tools, printing presses, etc.
- (4) Hoists for raising and lowering materials and which are provided with unguided hooks, slings, and similar means for attachments to the materials.
- (5) Skip or furnace hoists.
- (6) Wharf ramps.
- (7) Amusement devices.

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- (8) Stage and orchestra lifts.
- (9) Lift bridges.
- (10) Railroad car lifts or dumpers.
- (11) Construction elevators as defined in section 7200 of the Labor Code.
- (12) Mine hoists/elevators.
- (13) Freight platform hoists with a travel of not more than 5 feet (1.52m).
- (14) Wind Turbine Tower Elevators.
- (15) Outside Emergency Elevators.

~~(Title 24, Part 7, Section 7-3000(d))~~

(e) ~~Devices-Conveyances~~ Prohibited. The following type elevators are not allowed for new installations.

- (1) Hatchway type elevator.
- (2) Carriage type elevator.
- (3) Auxiliary power elevator.
- (4) Single belt elevator.
- (5) Double belt elevator.
- (6) Steam elevator.
- (7) Gravity elevator.
- (8) Platform elevator.
- (9) Private residence elevators and private residence inclined lifts ~~as regulated in part V, ASME A17.1, except those allowed by article 15 and article 36~~ as permitted by 3000(a)(3) and 3001.1(a)(5).

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~~(Title 24, part 7, Section 7 3000(e))~~

~~(f) Group III Installations. Devices listed in section 3000(c) that are:~~

~~(1) Erected from plans or contracts completed, and for which the notice of intention to install is filed with the Division, on or after October 25, 1998, but before May 1, 2008.~~

~~(2) Installations that have been operating previous to October 25, 1998 without the required inspection or permit to operate.~~

~~(3) Devices that are moved to a new location on or after October 25, 1998, but before May 1, 2008. Note: Regulations for Group III installations are in Group III.~~

(f) Determining the Applicable Group of Elevator Safety Orders for a Conveyance Installation.

(1) The Group of Elevator Safety Orders that are applicable to a 3000(c) conveyance installation or alteration shall be determined by the signed contract date between the purchaser and the Certified Qualified Conveyance Company (see Table 1).

(2) Any 3000(c) conveyance that has been installed and is operating without the required inspection or permit to operate shall be removed from service until such time as an authorized representative of the Division has inspected and permitted the conveyance in conformance with the current Elevator Safety Orders.

~~(g) Group II Installations. Devices listed in section 3000(c) that are:~~

~~(1) Devices which have been inspected by the Division and to which a serial number has been assigned.~~

~~(2) Devices for which erection was begun before October 25, 1998 and for which the notice of intent to install is not required.~~

~~(3) Devices erected from plans or contracts completed, and for which the notice of intent to install is filed with the Division, before October 25, 1998. Note: Regulations for Group II installations are in Group II.~~

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(hg) Alterations, Repairs, Replacements, and Maintenance, and Testing of Devices. Maintenance, Repair, Replacement, Testing and Alterations of Conveyances.

(1) ~~Alterations, repairs, replacements, and maintenance of devices listed in section 3000(c) shall comply with Part XII of ASME A17.1-1996; except for Rule 1200.1, Rule 1206.10, section 1214, section 1215, section 1216, and section 1217; which is hereby incorporated by reference.~~ Maintenance, Repair, Replacement, and Testing of conveyances listed in section 3000(c) shall comply with Section 8.6 of ASME A17.1-2013, as amended by the Elevator Safety Orders.

(2) ~~Alterations made after May 1, 2008 on Group II and Group III devices listed in section to conveyances listed in section 3000(c) shall comply with the applicable provisions of section 3141.2 in Group IV 8.7 of ASME A17.1-2013, as amended by the Elevator Safety Orders. All altered or replaced components and systems shall meet the applicable requirements of section 8.4 of ASME A17.1-2013.~~

Note: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3, 7301, 7308 and 7317, Labor Code.

Article 2. ~~Permits to Operate~~

§ 3001.0 ~~Permits to Operate~~ Permit to Commence Work.

~~(a) Submittal of Plans and Notification of Intent to Install.~~

~~(1) The person or firm who intends to install a new elevator, dumbwaiter, escalator, moving walk, or manlift, shall submit the erection plans to the Division for review. In lieu of complete erection drawings and plans, the division will accept notification from a recognized elevator company that they intend to install a device covered by these regulations of a certain type at a definite address, and subsequent notification to the division that the installation is complete and ready for inspection.~~

~~(2) The Division may require drawings and details of construction of any portion of an installation when complete erection plans are not submitted.~~

~~(3) When an installation requires material, fabrication, or construction other than recognized standard types or has an offset car frame or is an observation type elevator installed in other than a fully enclosed hoistway, drawings and details shall be submitted to the Division prior to installation.~~

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~~(4) Alterations to existing passenger or freight elevators as defined in section 3000(h) shall be considered as new installations for submittal of plans or notice of intent to make the alteration and the subsequent notification that the work is complete and ready for inspection. The notice of intent shall include a complete description of the alteration.~~

~~(5) The person or firm doing the work of replacing door locking devices, safety devices, governors, or oil buffers on existing installations of passenger or freight elevators shall notify the Division when the work is complete and ready for inspection.~~

~~(6) The person or firm installing a new hand power man platform shall notify the Division when the installation is complete and ready for inspection.~~

~~(7) The person or firm responsible for special maintenance operations such as the cleaning of glass or the replacement of lamps that cannot be performed from inside the elevator car, shall submit a plan to the Division outlining a safe method that will be used to perform the maintenance.~~

~~(8) The person or firm installing a static control shall provide the Division with information showing that the control complies with the requirements of Group II, sections 3040(f)(4) and 3040(f)(7). This information shall be in the form of either:~~

~~(A) Electrical schematic diagrams or block diagrams of the control and safety circuits; or~~

~~(B) A written checkout procedure and demonstration of safety and speed control circuits required by sections 3040(f)(4) and 3040(f)(7) at the time of the inspection. EXCEPTION TO SECTION 3001(a)(8): Installation of static control for Group IV installations shall comply with Group IV, section 3141.3.~~

(a) Notification of Intent to Install and Submittal of Plans.

(1) On or after (date TBD by OAL), no conveyance may be erected, constructed, installed, or materially altered, unless a permit has been obtained from the Division before the work is commenced. A copy of the permit shall be kept at the construction site at all times while the work is in progress and shall be made available for inspection upon request.

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(2) The Certified Qualified Conveyance Company who intends to install or alter a conveyance listed in §3000(c) shall submit the following to the Division for review:

(A) A letter of intent to install.

(B) Two sets of accurately scaled and/or fully dimensioned layout drawings.

(C) Two sets of specifications.

(3) The layout drawings and specifications shall be sufficiently complete to illustrate all details of construction and design.

(b) Submittal Requirements.

(1) For elevators, dumbwaiters, material lifts, vertical and inclined platform lifts, inclined stairway chairlifts, vertical conveyors and other similar conveyances, a machine room and/or control room plan, a hoistway plan and a hoistway elevation shall be submitted to the Division for review.

(A) In addition to the layout drawing requirements specified by ASME A17.1, the layout drawings shall include all code required horizontal and vertical clearances, runbys for cars and counterweights, top of car and counterweight clearances, maintenance path to all components requiring maintenance and/or inspection, maintenance clearance to all components requiring maintenance and/or inspection, maximum reach distances to all components of driving machines, motors, brakes and governors installed in the hoistway (the distance shall be measured from the working surface of the car top, with the car top level with the top landing, and the locking means required by ASME A17.1 engaged), size and location of all access doors to workspaces, headroom in all workspaces, code required electrical clearances for all conveyance controller equipment and associated disconnecting means.

(B) The hoistway elevation shall include car and counterweight bracket spacing. The nominal weight of the guide rails, and the size and linear weight of any guide rail reinforcement (where provided), shall be indicated.

(C) The layout drawings shall provide a detail of all engineered seismic fastenings to the building structure for guide rail brackets, machines, control panels, motor-generator units, machine beams, support beams, sheaves, hydraulic tanks, hydraulic piping, etc.

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(D) The layout drawings shall include a listing of all devices and components that require an approval from the Division. Each device or component shall be identified by manufacturer, name of device or component, model number and the Division's approval number. Devices include: door locking devices, oil buffers, car and counterweight safeties, speed governors, plunger engaging safety devices, suspension means (excluding steel wire ropes) and suspension means residual strength monitoring devices.

(E) The layout drawings shall list the name of the manufacturer for all motor controllers, motion controllers and operation controllers. It shall also list the controller name and the approval number assigned to the controller by the accredited testing laboratory that listed/certified and labeled/marked it in conformance with CSA B44.1/ASME A17.5.

(2) For escalators and moving walks, a machine room and/or control room plan (if applicable), a wellway plan and a wellway elevation shall be submitted to the Division for review.

(A) The submittal shall include the calculations for structural design, machinery design, and brake design.

(B) Story drift:

- (i) For new construction, the maximum design story drift provided by the California Licensed Structural Engineer of Record for the building, shall be indicated on the plan.
- (ii) For alterations, the maximum designed story drift shall be provided by a California Licensed Structural Engineer.

(C) Details of all supports, seismic restraints and beam seats shall be provided.

(D) The layout drawings shall list the name of the manufacturer for all motor controllers, motion controllers and operation controllers. It shall also list the controller name and the approval number assigned to the controller by the accredited testing laboratory that listed/certified and labeled/marked it in conformance with CSA B44.1/ASME A17.5.

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(c) Issuance of a Permit to Commence Work shall allow the Certified Qualified Conveyance Company to proceed with the installation of the conveyance(s). The Permit to Commence Work in no way relieves the Certified Qualified Conveyance Company from its responsibility to complete the installation in strict accordance with the Elevator Safety Orders.

Note: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3, 7301.1, and 7317, Labor Code.

§ 3001.1 Permit to Operate.

(ba) Inspections Required.

(1) Each new ~~device~~ conveyance shall be inspected by an authorized representative of the Division and a permit to operate issued before the ~~device~~ conveyance is placed in service.

(2) Each alteration of an existing ~~device~~ conveyance shall be inspected by an authorized representative of the Division and a new permit to operate issued before the ~~device~~ conveyance is placed back in service.

Exception: After the inspection of a new ~~device~~ conveyance or an alteration, the ~~device~~ conveyance may be placed in service while the permit to operate is being processed, provided, in the opinion of the inspecting representative of the Division, the ~~device~~ conveyance is safe to operate.

(3) The replacement of door locking devices, safety devices, governors, oil buffers, counterweights, car enclosures and car doors and gates, terminal stopping devices, operating devices and control equipment, controllers, and emergency and signaling devices, shall be inspected by an authorized representative of the Division before the elevator is placed back in service.

(4) Reinspections of the ~~devices~~ conveyances covered by these regulations shall be as prescribed in Labor Code section 7304 which requires all elevators to be inspected at least once each year, but permits up to a two-year period if an elevator is in a safe condition for operation and is subject to a full maintenance service contract. Such reinspections may be done by certified inspectors as defined in section 3003.

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(5) Elevators in a multiunit residential building serving no more than two dwelling units and not accessible to the public shall be inspected by the Division upon completion of installation prior to being placed in service, or after alterations prior to being returned to service. The inspection shall be for safety and compliance with applicable provisions in ~~ANSI/ASME A17.1-1984, Parts V and XXI, which are hereby incorporated by reference.~~ Elevators installed after Sept. 28, 2001, shall be inspected for safety and compliance with applicable provisions in either ASME A17.1-1996, Part 5, which is hereby incorporated by reference; or ASME A18.1-1999, Sections 5, 6, and 7, which is hereby incorporated by reference of the Elevator Safety Orders.

(6) ~~Special access elevators installed after Sept. 28, 2001 shall be inspected for safety and compliance with the applicable provisions of Article 15, Special Access Elevators and Special Access Lifts, sections 3093-3093.60 of the Elevator Safety Orders.~~

(eb) Permit to Operate Required. No elevator 3000(c) conveyance shall be operated without a valid, current permit issued by the Division.

(1) The permit to operate, or a copy thereof, ~~to operate a passenger elevator, freight elevator or incline elevator~~ shall be posted conspicuously and securely in the elevator conveyance car enclosure. For other ~~devices conveyances without car enclosures~~, the permit shall be available on the premises.

(2) Except as provided in subsection 3001.1(eb)(3), the permit shall not be issued for a period exceeding one year.

(3) If the Division's investigation and inspection indicate the elevator conveyance is in a safe condition and will be covered during the entire term of the permit by a full maintenance contract with an elevator service company possessing a C-11 license issued by the California Contractors' State License Board, the Division may issue a permit for a period not exceeding two years.

(4) Within 60 days of notification by the Division that an elevator conveyance may qualify for a two-year permit, the ~~elevator service company~~ Certified Qualified Conveyance Company shall submit to the Division the following information:

(A) A copy of the ~~elevator service e~~ Certified Qualified Conveyance Company's C-11 license issued by the California Contractors' State License Board;

(B) A copy of the full maintenance service contract.

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(5) A full maintenance service contract shall:

(A) Specify the responsibilities of the ~~elevator service~~ Certified Qualified Conveyance Company in regard to all repairs and maintenance that may be necessary to keep the ~~elevator conveyance~~ in compliance with the Elevator Safety Orders, Title 8 of the California Code of Regulations; and

(B) Require the ~~elevator service~~ Certified Qualified Conveyance Company to service the ~~elevator conveyance~~ as frequently as necessary to effect safe operation but not less often than monthly.

(6) The ~~elevator service~~ Certified Qualified Conveyance Company shall notify the Division within 30 days if a full maintenance service contract is terminated or altered during the period the two-year permit is in effect.

(dc) ~~Inspection~~ Fees.

The Division shall assess a fee for plan check and inspections services performed by Division safety engineers in accordance with ~~†~~ Title 8, California Code of Regulations, section 344.30. ~~The Division shall not issue a permit to operate until the assessed fee has been collected.~~

(ed) Application Processing Time for Renewal of Permit to Operate.

(1) Within 15 calendar days of receipt of an application for renewal of a permit to operate, the Division shall inform the applicant in writing that the application is either complete and accepted for filing or that it is deficient and what specific information and documentation is required to complete the application.

(2) Within 30 calendar days from the date of the filing of a completed application, the Division shall conduct an inspection of the ~~device conveyance~~ for which the permit is sought. If the inspection reveals violations of the safety orders, a preliminary order indicating such requirements as may in the opinion of the Division be necessary to comply with these regulations shall be issued.

(3) After satisfactory compliance with the preliminary order, if one has been issued, and upon notification to the Division's elevator unit that the inspection fee has been paid, the Division shall issue the permit within 15 calendar days.

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(4) The Division's median, minimum and maximum times for processing a permit from the receipt of the initial application to the final permit decision, based on the Division's actual performance during the two years immediately preceding the proposal of this regulation have been as follows:

Median time 60 days
Minimum time 30 days
Maximum time 1 year

Note: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3, 7301.1, 7304(b) and 7317, Labor Code.

Article 3. Variances

§ 3002. Variances.

(a) Any employer, person or firm having custody of ~~an elevator~~ a conveyance may apply to the Division for a temporary order granting a variance from an elevator safety order. Such temporary order shall be granted only if the employer, person or firm files an application which meets the requirements of section 6450 through 6457, inclusive, of the California Labor Code.

(b) Any employer, such as a person or firm having custody of an elevator, may apply to the Occupational Safety and Health Standards Board for a permanent variance from an occupational safety and health standard, order, special order, or portion thereof upon a showing of an alternative program, method, practice, means, device, or process which will provide equal or superior safety. Such application shall conform to the requirements of the California Code of Regulations, ~~€Title 8, chapter 3.5 (Title 24, part 7, section 7 3002).~~

Note: Authority cited: Sections 142.3 and 143, Labor Code. Reference: Sections 142.3, 143, 143.2, 6450 and 6454, Labor Code; ~~and Section 18943(b), Health and Safety Code.~~

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Article 4. Qualifications for Certified Inspectors

§ 3003.0 Qualifications for Certified Inspectors.

(a) Employment. Applicants shall be employed by a licensed insurance company carrying insurance on elevators or by a municipality which maintains an elevator inspection organization operating under ordinances or rules at least equivalent to the Elevator Safety Orders of the ~~Division of Industrial Safety~~.

Applicants may be examined prior to their employment if sponsored by an insurance company or a municipality by an agreement to employ the candidate if he is successful in the examination. However, no certificate will be issued until the applicant is actually employed as an elevator inspector.

(b) Experience. Applicants shall have had at least four years of experience in some mechanical or electrical endeavor at least one year of which shall have been in the design, construction, installation, repair or inspection of elevators.

The non-elevator, mechanical, or electrical experience shall be at the journeyman ~~man~~ person mechanic level or technical work and the work must have been comparable to work in the elevator industry.

Engineering education on a college level may be substituted on a year-for-year basis for the non-elevator qualifying experience.

The one year of required elevator experience may be on the basis of continuous employment for one year in which at least half of the applicant's time is devoted to elevator work.

(c) Training. Immediately prior to the examination, the candidate shall have completed at least 90 days of intensive training in elevator inspection in California under the direct supervision of a certified elevator inspector.

This training period may be waived prior to the written examination; provided, however, that no certificate shall be issued until the candidate has been employed and satisfactorily completed the prescribed training period.

(d) Performance of Duties. A candidate shall be of good character, free from disabling defects, and possessing sufficient agility to perform his duties safely and efficiently.

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(e) Certificates. Certificates of competency may be revoked by the ~~the~~ Division, after a hearing, for failure to submit true reports concerning the condition of an elevator, or for conduct deemed by the ~~the~~ Division to be contrary to the best interests of elevator safety or of the ~~the~~ Division.

Certificates may also be revoked, after a hearing, when physical infirmities develop to a point where it appears that an inspector can no longer perform his duties in a thorough and safe manner.

Certificates may be suspended by the ~~the~~ Division, after a hearing, for periods up to six months for infractions not deemed serious enough to revoke the certificate.

(f) Frequency of Inspection. Certificates will be automatically suspended if, for a period of one year, an inspector does not make any elevator inspections as evidenced by reports submitted; however, such certificates may be reinstated without a written examination at the discretion of the ~~the~~ Division.

This provision does not apply to the supervising engineers or others whose regular duties include the review of the work of other certified inspectors.

(g) Examination. The examination shall be conducted in two parts; the first consisting of a written examination and the second consisting of a field examination.

If the applicant fails to obtain a passing grade in either the written or field examination, he may apply for a re-examination and the waiting period between examinations shall be determined by the ~~the~~ Division as not less than 30 days or more than 6 months, depending on the judgment of the ~~the~~ Division regarding the necessity of additional study and training on the part of the applicant.

The field examination may be waived or postponed by the ~~the~~ Division and the certificate issued subject to field examination. This field examination may consist of a formal assignment related to elevator inspection or it may consist of an appraisal of work of the inspector during an indefinite probationary period.

(4) Written examinations will be conducted by appointment at any time mutually agreeable to the candidate and to the ~~the~~ Division. ~~These examinations will be conducted in the office of the ~~the~~ Division, either in San Francisco or in Los Angeles.~~

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code; and Section 18943(b), Health and Safety Code.

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§ 3003.1. Certified Qualified Conveyance Companies.

(a) Qualifications.

At a minimum, the individual qualifying on behalf of a corporation, the owner on behalf of a sole ownership, or the partners on behalf of a partnership, shall meet either of the following requirements:

- (1) Five years' work experience at a journeyman level in the conveyance industry in construction, installation, alteration, testing, maintenance, and service and repair of conveyances covered by the Elevator Safety Orders. This experience shall be verified by current and previously licensed elevator contractors or by current and previously Certified Qualified Conveyance Companies.
- (2) Satisfactory completion of a written examination administered by the Division on the most recent applicable codes and standards.

(b) Application Requirements for Certification.

The following documents shall be submitted to the Division for review and approval:

- (1) A completed New CQCC Application and applicable fees.
- (2) A copy of an approved continuing education certificate.
- (3) A copy of a current and valid C-11 license.
- (4) A copy of current Workers' Compensation insurance certificate.
- (5) A copy of current Liability insurance certificate.

(c) Certification.

- (1) A certificate issued by the Division to the Certified Qualified Conveyance Company shall have a term of two years.

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(2) Prior to expiration of this two year term, the applicant shall submit a CQCC renewal application. The renewal of all certificates issued by the Division shall be conditioned upon the submission of a certificate of completion of a course designed to ensure the continuing education of certificate holder on new and existing provisions of the Elevator Safety Orders. The Division shall approve the continuing education providers and curriculum. The continuing education course shall consist of not less than eight hours of instruction that shall be attended and completed within one year immediately preceding any certificate renewal.

(3) The Division may revoke or suspend, at any time, upon good cause being shown therefor, and after hearing, if requested, any certification issued by it to a Certified Qualified Conveyance Company.

(4) If, upon investigation by the Division, a Certified Qualified Conveyance Company is found to have unsupervised, non-certified, elevator mechanic(s) in its employ, the Division may suspend the Certified Qualified Conveyance Company's certification for up to 90 days.

(5) The Division shall suspend or revoke a Certified Qualified Conveyance Company certification for the following reasons:

(A) Gross negligence, gross incompetency, a pattern of incompetence.

(B) Willful or deliberate disregard of any conveyance safety standard or misrepresentation of documentation to the Division.

(C) Misrepresentation of a material fact in applying for, or obtaining, certification under this section.

(D) Upon a showing of good cause.

(d) Fee.

The Division shall assess a certification fees in accordance with Title 8, California Code of Regulations, section 344.30.

Note: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3, 7311.1, and 7311.3 Labor Code.

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§ 3003.2 Certified Competent Conveyance Mechanics.

(a) Qualifications.

At a minimum, a Certified Competent Conveyance Mechanic applicant shall meet both of the following requirements:

(1) Three years' work experience in the conveyance industry in construction, maintenance, and service and repair of conveyances covered by the Elevator Safety Orders. This experience shall be verified by current and previously licensed elevator contractors or by current and previously Certified Qualified Conveyance Companies, as required by the Division.

(2) One of the following:

(A) Satisfactory completion of a written examination administered by the Division on the most recent applicable codes and standards.

(B) A certificate of completion and successfully passing the mechanic examination of a nationally recognized training program for the conveyance industry, such as the National Elevator Industry Educational Program or its equivalent.

(C) A certificate of completion of an apprenticeship program for elevator mechanic, having standards substantially equal to those of this chapter, and which program shall be registered with the Bureau of Apprenticeship and Training of the United States Department of Labor or a state apprenticeship council.

(D) A certificate or license from another state having standards substantially equal to or more comprehensive than those contained in the Elevator Safety Orders.

(b) Application Requirements for Certification.

The following documents shall be submitted to the Division for review and approval:

(1) A completed New CCCM Application, verified and signed by current and previously licensed elevator contractors or by current and previously Certified Qualified Conveyance Companies.

(2) Proof of employment by a Certified Qualified Conveyance Company.

(3) One of the requirements listed in 3005(a)(2).

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(c) Certification.

(1) A certificate issued by the Division to the Certified Competent Conveyance Mechanic shall have a term of two years.

(2) Prior to expiration of this two year term, the applicant shall submit a CCCM renewal application. The renewal of all certificates issued by the Division shall be conditioned upon the submission of a certificate of completion of a course designed to ensure the continuing education of certificate holder on new and existing provisions of the Elevator Safety Orders. If the Division determines that a person has performed work on a conveyance without supervision, and without the certification required by this section, he or she shall be prohibited from working as a Certified Competent Conveyance Mechanic for a period of ninety (90) days. After this ninety (90) day period, the person may apply or re-apply for certification.

(3) The Division may revoke, at any time, upon good cause being shown therefor, and after hearing, if requested, any certification issued by it to a Certified Competent Conveyance Mechanic.

The Division may suspend for up to 90 days, at any time, upon good cause being shown therefor, and after hearing, if requested, any certification issued by it to a Certified Competent Conveyance Mechanic.

The Division shall suspend or revoke a Certified Competent Conveyance Mechanic certification for the following reasons:

(A) Gross negligence, gross incompetency, a pattern of incompetence.

(B) Willful or deliberate disregard of any conveyance safety standard.

(C) Misrepresentation of a material fact in applying for, or obtaining, certification under this section.

(D) Upon a showing of good cause.

(d) Fee.

The Division shall assess a certification fees in accordance with Title 8, California Code of Regulations, section 344.30.

Note: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3, 7311.2, and 7311.3 Labor Code.

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Amend section 3009.(b) As Follows:

* * * * *

Supervision – The actions of an onsite Certified Competent Conveyance Mechanic (CCCM), in the employ of a Certified Qualified Conveyance Company (CQCC), who directly oversees any person, craft or trade that erects, constructs, installs, alters, tests, maintains, services, repairs, removes, or dismantles any conveyance to ensure that the work is conducted in a safe manner, and that the resultant work is in strict accordance with the Elevator Safety Orders.

* * * * *

Group IV. Conveyance Installations for Which the Installation Contract Was Signed on or After May 1, 2008, but before (date TBD by OAL)

Article 40. Application

§ 3140. Application.

- (a) ~~Group IV governs the design, erection, construction, installation, service, and operation of conveyances as defined in Section 7300.1 of the Labor Code, for which the installation contract was signed on or after May 1, 2008.~~
- (b) ~~Use and Precedence of Orders:~~
 - (1) ~~The reference to ASME A17.1-2004, Safety Code for Elevators and Escalators, developed by the American Society of Mechanical Engineers, shall mean the 2004 edition, and shall be referred to as ASME A17.1-2004, unless otherwise indicated.~~
 - (2) ~~The reference to ASME A18.1-2003, Safety Standard for Platform Lifts and Stairway Chairlifts, developed by the American Society of Mechanical Engineers, shall mean the 2003 edition, and shall be referred to as ASME A18.1-2003, unless otherwise indicated.~~
 - (3) ~~The reference to ASCE 21, Automatic People Movers, developed by the American Society of Civil Engineers, shall mean ASCE 21, Part 1, 1996 edition; Part 2, 1998 edition; and Part 3, 2000 edition; and shall be referred to as ASCE 21, Parts 1, 2, and 3, unless otherwise indicated.~~

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(4) ~~The Elevator Safety Orders shall apply if any difference exists between the Elevator Safety Orders and ASME A17.1 2004; ASME A18.1 2003; and ASCE 21, Part 1, 1996 edition, Part 2, 1998 edition, and Part 3, 2000 edition; or any other code, document or standard referenced in ASME A17.1 2004; ASME A18.1 2003; and ASCE 21, Part 1, 1996 edition, Part 2, 1998 edition, and Part 3, 2000 edition.~~

* * * * *

Add new Article 47 as follows:

Group V Conveyance installations for Which the installation contract was signed on or after (date TBD by OAL)

Article 47.0000 Conveyanced installed under Group V

§ 3147.1000 General Requirements.

- (a) Conveyances shall comply with the following general requirements:
- (1) Except as modified herein, all electrical equipment and wiring shall comply with CCR, Title 24, Part 3, California Electrical Code in effect at the time of installation or alteration. Access and working space shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment.
 - (A) The clear working space about motor controllers, motion controllers, operational controllers, and other electrical equipment likely to require examination, adjustment, servicing, or maintenance while energized shall comply with the California Electric Code – 2013, section 110.26(A).
 - (B) All live parts of electrical apparatus in the hoistways, at the landings, in or on the cars of elevators and dumbwaiters, in the wellways or the landings of escalators or moving walks, or in the runways and machinery spaces of platform lifts and stairway chairlifts shall be enclosed to protect against accidental contact. This enclosure shall not be removed until lockout/tagout procedures have been implemented, and an electrically safe work condition has been achieved.

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- (C) Fire detecting systems for hoistways and the necessary wiring may be installed in hoistways, provided that the system is arranged to be serviced and repaired from outside the hoistway.
- (2) All Conveyances shall comply with Title 24, Part 2 *California Building Code* in effect at the time of installation or alteration.
- (3) Door locking devices, oil buffers, car and counterweight safety devices, speed governors, plunger engaging safety devices (plunger gripper) and suspension means requiring engineering testing per ASME A17.1-2013, section 2.20.11 shall be approved by the Division based on the criteria contained in ASME A17.1-2013, sections 2.12, 2.17, 2.18, 2.22.4, and 3.17.3; ASME A17.1-2013 section 2.20; and California Title 8, sections 3105(b), 3106(b), 3106.1(b), 3108(f), 3110(a) and 3147.1000(a)(10).
- (4) Where counterweights are located between conveyances in a hoistway having more than one conveyance, the counterweights shall be guarded for the entire height of the hoistway. The guard shall extend at least 6 inches horizontally beyond each counterweight rail. The guard shall be of noncombustible material. The guard, if of openwork material, shall reject a ball 25 mm (1 in.) in diameter and be made from material equal to or stronger than 1.110 mm (0.0437 in.) diameter wire. The guard 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 and the counterweight below 25 mm (1 in.).
- (5) Scissor type collapsible gates are prohibited.
- (6) Looped pull straps are prohibited.
- (7) Aramid Fiber suspension ropes are prohibited.
- (8) Hoistway door unlocking devices described in ASME A17.1-2013, section 2.12.6, are prohibited on all conveyances
- (9) Permanent ink markers shall not be used as a means for recording information on required data tags.

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- (10) Data required for suspension Approval.
- (A) Two complete sets of assembly and detail drawings of the suspension member and related equipment shall be submitted to the division and shall show the following:
- (i) Material, construction, dimensions, Manufacturer's part number(s), and Manufacturer's marking(s) for identification of the suspension member.
 - (ii) Values of the data as marked on the suspension member data tag, required by ASME A17.1-2013, section 2.20.2.2.
 - (iii) Values of the data as marked on the crosshead data plate required by ASME A17.1-2013, section 2.20.2.1.
 - (iv) Technical criteria, data, diagrams and documentation used in the determination of essential safety requirements and parameters of the suspension member, including but not limited to:
 - (a) Factor of safety.
 - (b) Residual strength monitoring.
 - (c) Broken suspension member detection.
 - (d) Inspection and replacement criteria.
 - (e) Selection criteria, certification and installation of suspension member connections.
 - (f) Limitations of suspension member speed if, any.
 - (g) Minimum sheave and drum diameters.
 - (h) Sheave material criteria.
 - (i) Limitations of weather exposure or other ambient conditions.
 - (j) Considerations regarding the use of the suspension member under emergency conditions(i.e. fire, earthquake, etc.).
- (B) The results of tests performed on the suspension member in accordance with ASME A17.1-2013, section 2.20.11.
- (C) The results of performance testing of the suspension member under elevator operating conditions for its range of application, as required by ASME A17.1-2013, section 2.20.3.

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- (11) Data required for controller Acceptance
- (A) Any manufacturer who intends to install a motor, motion and/or operational controller for conveyances covered by ASME A17.1 and ASME A18.1 shall provide the Division with verification that the motor, motion and operational controllers have been properly tested and certified in accordance with the requirements of ASME A17.1, ASME A18.1, and the Elevator Safety Orders. This information shall be in the form of:
- (1) Certificates and test reports from third party accrediting agencies that have inspected the controller for compliance with ASME A17.5.
 - (2) The results of the Electromagnetic Interference (EMI) and voltage dip testing.
 - (3) Certificates and test reports from third party accrediting agencies for any SIL rated control and operating circuits.
 - (4) Wiring diagrams detailing circuits of all electrical protective devices and critical operating circuits.
 - (5) Code required check out procedures for testing and inspecting all safety and speed control circuits.
 - (6) Special procedures or unique methods required for testing and inspecting SIL rated electrical protective devices and circuits.
- (B) Motor, motion and/or operational controllers shall not be installed until a written acceptance of the controller has been granted by the Division. A permit to operate will not be granted for a conveyance installation without this written acceptance.

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§ 3147.2000 Conveyances Covered by ASME A17.1-2013

Group V conveyances covered by ASME A17.1 shall comply with ASME A17.1-2013 which is hereby incorporated by reference except as modified herein:

§ 3147.2001 RESERVED

§ 3147.2002 PURPOSE AND EXCEPTIONS.

Conveyances covered by ASME A17.1-2013 shall comply with section 1.2 except as modified herein:

- (a) Sections 1.2.1(b) and 1.2.1(c) are not adopted.

§ 3147.2003 RESERVED

§ 3147.2200 Electric Elevators

§ 3147.2201 CONSTRUCTION OF HOISTWAYS AND HOISTWAY ENCLOSURES.

Construction of hoistways and hoistway enclosures shall comply with Section 2.1 except as modified herein:

- (a) Modify section 2.1.6.2 to read as follows:
 - “On sides not used for loading and unloading
 - (a) beams, floor slabs, or other building construction making an angle less than 75 deg with the horizontal shall not project more than 50 mm (2 in.) inside the hoistway enclosure unless the top surface of the projection is beveled at an angle not less than 75 deg with the horizontal
 - (b) separator beams between adjacent elevators are not required to have bevels
 - (c) where recesses or setbacks exceeding 50 mm (2 in.) occur in the enclosure wall, the top of the recess or setback shall be beveled at an angle of not less than 75 deg with the horizontal

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(d) bevels are not required if the projections, recesses, and setbacks are covered with material conforming to the following:

(1) it shall be equal to or stronger than 1.110 mm (0.0437 in.) wire

(2) it shall have openings not exceeding 25 mm (1 in.)

(3) it shall be supported and braced such that it will not deflect more than 25 mm (1 in.) when subjected to a force of 4.79 kPa (100 lbf/ft²) applied horizontally at any point”

§ 3147.2202 PITS.

Pits shall comply with Section 2.2 except as modified herein:

(a) section 2.2.3.2 is not adopted

(b) Modify section 2.2.4.2.2 to read as follows:

“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 356 mm (14 in.).”

(c) Modify section 2.2.5.3 to read as follows:

“The light switch shall be located adjacent to the elevator pit access door within 18 inches to 36 inches above the access landing when access to the elevator pit is through the lowest landing door.”

(d) Modify section 2.2.3 to read as follows:

“Guards between adjacent pits enclosures not less than 6 ft (1.83m) high shall be provided between pits of adjacent hoistway’s. Where openings are provided in the enclosure, they shall not exceed 2 in. (51mm). Where a ladder is provided on the enclosure, the enclosure shall extend not less than 6 ft (1.83m) above the top rung and not less than 12 in. (305mm) each side of the side rails.

Exception:

The partitions may be omitted if the clearance between the underside of the car sling when resting on a fully compressed buffer and the bottom of the pit is not less than 7 ft. (2.13 m).”

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- (e) Modify section 2.2.8 to read as follows:

“Where the distance from the pit floor to the underside of the plank channels or slings exceeds 2 100mm(83 in.), with the car at the lowest landing, a working platform shall be permanently installed in the pit to provide access to the equipment on the underside of the car. The working platform shall conform to the requirements of 2.7.5.3.2 through 2.7.5.3.6. Access to the working platform shall be from a ladder installed in accordance with section 2.2.4.2.2 through 2.2.4.2.6.”

§ 3147.2203 LOCATION AND GUARDING OF COUNTERWEIGHTS.

Location and guarding of counterweights shall comply with Section 2.3 except as modified herein:

- (a) The guard required by section 2.3.2.3 shall extend at least 6 inches horizontally beyond each counterweight rail.

§ 3147.2204 VERTICAL CLEARANCES AND RUNBYS FOR CARS AND COUNTERWEIGHTS.

Vertical clearances and runbys for cars and counterweights shall comply with Section 2.4 except as modified herein:

- (a) sections 2.4.2.1(a) and 2.4.2.1(b) are not adopted
- (b) Modify section 2.4.7.1 to read as follows:

“(a)When the car has reached its maximum upward movement, the clearance above the car top, measured vertically up to the horizontal plane described by the lowest part of the overhead structure or other obstruction and measured within the projection of the car enclosure top, shall be not less than 1 100 mm (43 in.). In no case shall the following additional clearances be less than:

(1) 600 mm (24 in.) above the car crosshead assembly or the distance which any sheave assembly mounted in or on the crosshead projects above the top of the car crosshead, whichever is greater, but in no case shall there be less than 150 mm (6 in.) clearance above the sheave assembly.

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(2) 600 mm (24 in.) above equipment attached to and projecting above the car enclosure top, exclusive of

(A) standard railings (see also 2.14.1.7.2)

(B) roller and sliding guide assemblies (see also 2.4.9)

(C) gatepost(s) for vertically sliding gates (see also 2.4.9). Spreader bars between gateposts with horizontal and vertical clearances not in compliance with 2.14.1.7.2 shall have yellow and black diagonal stripes of not less than 25 mm (1 in.) wide along the length of the spreader bar, mounted at a location visible from the car top”

(c) Modify section 2.4.7.2 to read as follows:

“Any horizontal area above the car enclosure top which could contain a circle with a diameter of equal to or greater than 350 mm (14 in.) that does not have a vertical clearance of 1 100mm(43 in.) when the car has reached its maximum upward movement shall be clearly marked. The marking shall consist of alternating 50 mm (2 in.) diagonal red and white stripes. In addition, when markings are provided, sign(s) with the words “DANGER LOW CLEARANCE” shall be prominently posted on the crosshead and be visible from the hoistway entrance(s). The sign(s) shall

(1) conform to the requirements of ANSI Z535.4 or CAN/CSA-Z321 (see Part 9)

(2) be made of durable material and shall be securely fastened”

§ 3147.2205 HORIZONTAL CAR AND COUNTERWEIGHT CLEARANCES.

Horizontal car and counterweights shall comply with Section 2.5 except as modified herein:

(a) Section 2.5.1.5.3 is not adopted

§ 3147.2206 RESERVED

§ 3147.2207 MACHINERY SPACES, MACHINE ROOMS, CONTROL SPACES, AND CONTROL ROOMS.

Machinery spaces, machine rooms, control spaces and control rooms shall comply with Section 2.7 except as modified herein:

(a) Sections 2.7.3.1.2 (c) and (d), 2.7.5.1.4 through 2.7.5.5 and 2.7.6.5 are not adopted.

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(b) Modify section 2.7.2.2 to read as follows:

“**Maintenance Path in Machinery Spaces and Control Spaces.** All components requiring maintenance in machinery spaces and control spaces shall have safe and convenient access. A clear path of not less than 468 mm (18 inches) shall be provided in the direction(s) required for access to components of driving machines, motors, brakes and governors located in the hoistway. All components of driving machines, motors, brakes and governors shall be installed within 533 mm (21 inches) horizontally from the inside edge of the car top railing, or from the edge of the car top, if a car top railing is not required by section 2.14.1.7.1. The top of all components of driving machines, motors, brakes and governors shall be located no more than a maximum of 1829mm (72 inches) above the car top working surface when components are located outside the standard railing and a maximum of 1981mm (78 inches) when the components are located within the standard railing. The maximum vertical dimensions of this rule shall be measured when the working surface of the elevator car top is level with the top landing and the locking means required by section 2.7.5 has been engaged.”

(c) Modify section 2.7.3.3.2 to read as follows:

“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, motor generators and drive-machines.”

(d) Modify section 2.7.5.1 to read as follows:

“The requirements of 2.7.5.1.1 through 2.7.5.1.4 shall be complied with if maintenance or inspections of the elevator driving-machine brake or emergency brake are to be carried out from the car top.”

(e) Modify section 2.7.5.1.1 to read as follows:

“If maintenance or inspection of the elevator driving-machine brake or an emergency brake from the car top could result in unexpected vertical car movement, a means to prevent this movement shall be provided.”

(f) Modify section 2.7.5.1.3 to read as follows:

“When the means required in 2.7.5.1.1 is engaged, the car top shall be level with the landing and egress from the working area shall be provided through the hoistway landing door.”

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(g) Modify section 2.7.6.3.2 to read as follows:

“Elevator motion and motor controls shall be placed in a control room or machine room constructed in conformance with the Title 24, Part 2, California Building Code and set aside for that purpose. A permanent and unobstructed path of not more than 25 ft. in distance shall be provided between the control room or machine room door and the elevator hoistway door. The distance from the control room or machine room door to the hoistway door may be over 25 feet when the machine room is located directly above the hoistway in a conventional overhead traction installation. All electrical clearances in the control room or machine room shall be provided and maintained with the door in the closed position. The door shall not swing into the required electrical clearances. The door shall be labeled “ELEVATOR EQUIPMENT” with letters not less than 51 mm (2 in) high on a contrasting background. The room shall be arranged so that passage through the room is not necessary to gain access to other equipment or other parts of the building. Access to the room shall not be through a restroom, locker rooms, dressing rooms or a locked tenant/ owner space.

A permanent sign shall be mounted no less than 1200 mm (48 inches) and no greater than 1975 mm (78 inches) high on the elevator entrance jamb of all conveyances at their main recall floor and at the fire control panel, which will read "ELEVATOR CONTROL ROOM LOCATED *****". The sign shall be a minimum of 6 mm (1/4 inch) high on a contrasting background. If all the conveyances in a lobby share a common control or machine room a single sign at the fire recall switch may be permitted.”

(h) Modify section 2.7.6.3.4(a) to read as follows:

“(a) the governor can be inspected and serviced from the top of the car and the governor can be tripped for testing from outside the hoistway; and means are furnished to prevent movement of the car when servicing the governor. A sign with the words “SECURE CAR AGAINSTMovement BEFORE SERVICING THE GOVERNOR” shall be prominently posted and be visible from the governor. The sign shall conform to ANSI Z535.2 or CAN/CSA-Z321, whichever is applicable. The sign shall be of such material and construction that the letters and figures stamped, etched, cast, or otherwise applied to the face shall remain permanently and readily legible; and”

(i) Modify section 2.7.6.4 to read as follows:

“Where an elevator driving-machine brake or an emergency brake is located in the hoistway or pit, means necessary for tests that require movement of the car or release of the driving-machine brake or emergency brake, shall be provided and arranged so that they can be operated from outside the hoistway and shall conform to 2.7.6.4.1 through 2.7.6.4.3. These means are also permitted to be used by elevator personnel for passenger rescue.”

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(j) Modify section 2.7.6.4.2 to read as follows:

“The means necessary for tests shall be located in the elevator motion controller located in a machine room or control room.”

(k) Modify section 2.7.9.1 to read as follows:

“**Lighting.** Permanently installed electric lighting shall be provided in all machinery spaces, machine rooms, control spaces, and control rooms. The illumination shall be not less than 200 lx (19 fc) at the floor level, or at the standing surface of the car when it is in the blocked position (see 2.7.5.1). The light switch shall be located as follows:

- (a) At the point of entry for machinery spaces and control spaces that do not require full bodily entry.
- (b) At the point of entry inside the hoistway for machinery spaces and control spaces that do require full bodily entry.
- (c) Inside the room on the lock-jamb side of the access door for machine rooms and control rooms.

The use of motion sensing switches or timed lighting switches shall not be permitted.”

§ 3147.2208 RESERVED

§ 3147.2209 MACHINERY AND SHEAVE BEAMS, SUPPORTS, AND FOUNDATIONS.

Machinery and sheave beams, supports, and foundations shall comply with Section 2.9 except as modified herein:

- (a) Sections 2.9.3.1.2 and 2.9.3.3.2 are not adopted.

§ 3147.2210 GUARDING OF EQUIPMENT AND STANDARD RAILING.

Guarding of equipment and standard railings shall comply with Section 2.10 except as modified herein:

(a) Modify section 2.10.1 to read as follows:

“In machinery spaces, machine rooms, control spaces, and control rooms, the following shall be guarded to protect against accidental contact:

- (a) driving-machine sheaves and ropes whose vertical projection upon a horizontal plane extends beyond the base of the machine.

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- (b) Guarding in Machine Rooms and Machinery Spaces. The following equipment located in machine rooms or machinery spaces shall be guarded to protect against accidental contact:
- (1) Exposed external moving parts such as gears, sprockets, sheaves, drums, shafts and their driving ropes, chains or tapes for selectors, floor controllers or signal machines.
EXCEPTION: Guards are not required for equipment located more than 7 ft (2.13m) above the floor.
 - (2) The nip points of the drive sheaves and deflection sheaves of traction machines where the machine frame does not provide this protection.
 - (3) All moving parts of the equipment in sheave spaces shall be completely guarded. Expanded metal or grillwork shall be used for sheave guards.
Exception: Guards are not required for equipment located more than 7 ft (2.13m) above the secondary sheave space floor.
 - (4) The moving parts of equipment in overhead sheave spaces having a ceiling height of less than 78 in. (1.98m) shall be completely.
 - (5) The moving parts of equipment in overhead sheave spaces shall be guarded when it is necessary to pass over or by the moving parts to gain access to the governor.
- (c) Guarding in the Hoistway and On the Car. The following equipment located in the elevator hoistway or on the elevator car shall be guarded to protect against accidental contact:
- (1) Hoisting rope sheaves attached to and mounted above the car crosshead shall be completely guarded. Handholds shall be provided on each side of the guard.
 - (2) Hoisting rope sheaves mounted within the car crosshead or underneath the car shall be provided with guards at the exposed nip points.
 - (3) Where secondary or deflecting sheaves are located on the hoisting side of overhead machines, the ropes shall be guarded at the point of contact with the sheave, except where the bottom of the sheave is more than 7 ft (2.13m) above the crosshead of the car when the car is at the top terminal landing.
- (d) Where overhead sheaves are located above the crosshead, the ropes attached to the crosshead shall be guarded at the point of contact with the overhead sheave unless the sheave is located in an overhead sheave space.
- (e) Ventilating fans or blowers installed on the car top shall be guarded.”

§ 3147.2211 PROTECTION OF HOISTWAY OPENINGS.

Protection of hoistway openings shall comply with Section 2.11 except as modified herein:

- (a) Sections 2.11.1.2 and 2.11.1.4 are not adopted.

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**§ 3147.2212 HOISTWAY DOOR LOCKING DEVICES AND ELECTRIC CONTACTS,
AND HOISTWAY ACCESS SWITCHES.**

Hoistway door locking devices and electric contacts, and hoistway access switches shall comply with Section 2.12 except as modified herein:

- (a) Section 2.12.6 is not adopted.
- (b) Modify section 2.12.2.4.2 to read as follows:
“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.
The locking member shall not disengage when the door is subjected to a repetitive force of 450 N (100 lbf) in the direction of opening and at a right angle.”
- (c) Modify section 2.12.3.4.3 to read as follows:
“The mechanical lock shall hold the door in the locked position by means of gravity or by a restrained compression spring, or by both.
The locking member shall not disengage when the door is subjected to a repetitive force of 450 N (100 lbf) in the direction of opening and at a right angle.”
- (d) Modify section 2.12.7.1 to read as follows:
“Hoistway access switches are required regardless of the rated speed and shall be installed in the hoistway entrance frame or within 12 inches of the entrance frame and not less than 36 inches (914 mm) nor more than 78 inches (1.98 m) above floor level.
 - (a) the lowest landing when a separate pit access door is not provided
 - (b) the top landing
 - (c) Additional hoistway access switches shall be permitted at other landings only when switches specified in 2.12.7 (a) and (b) have been provided.”

§ 3147.2213 RESERVED

§ 3147.2214 CAR ENCLOSURES, CAR DOORS AND GATES, AND CAR ILLUMINATION.

Car enclosures, car doors and gates, and car illumination shall comply with Section 2.14 except as modified herein:

- (a) Sections 2.14.2.2(f), 2.14.2.2(g), 2.14.2.6, 2.14.4.2.2 and 2.14.6.3 are not adopted.

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(b) Modify section 2.14.1.5.1 to read as follows:

“Top emergency exits shall conform to the following requirements:

(a) The top emergency exit opening shall have an area of not less than 0.26 m² (400 in.²) and shall measure not less than 400 mm (16 in.) on any side.

(b) The emergency exit shall reside within the car top railings, if railings are provided.

(c) The top emergency exit and suspended ceiling opening, if any, shall be so located as to provide a clear passageway, unobstructed by fixed equipment located in or on top of the car. Equipment is permitted directly above the exit opening, provided that

(1) it is not less than 1 070 mm (42 in.) above the top of the car; or

(2) the exit is located to allow unobstructed passage of a parallelepiped volume measuring 300 mm x 500 mm by 1 500 mm (12 in. x 20 in. by 59 in.) at an angle not less than 60 deg from the horizontal (see Nonmandatory Appendix C).

(d) 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. The exit cover of the lower compartment of a multideck 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.

(e) The movable portion (exit panel) of the suspended ceiling that is below the top exit opening shall be restrained from falling. It shall be permitted to be hinged upward or downward, provided that the exit permits a clear opening with the top exit opening.

(1) A minimum clear headroom of 2 030mm(80 in.) above the car floor shall be maintained when downward- swinging suspended ceiling exit panels are used.

(2) Upward-opening suspended ceiling exit panels shall be restrained from closing when in use and shall not diminish the clear opening area of the corresponding top exit opening.

(3) The movable portion and the fixed portion of a suspended ceiling shall not contain lamps that could be shattered by the rescue operation using the top emergency exit. The movable portion of the suspended ceiling shall be permitted to contain light fixtures connected to the stationary portion of the suspended ceiling wiring by means of a plug and socket or by flexible armored wiring. Flexible wiring shall not be used to support or restrain the exit opening in the suspended ceiling in the open position.

(f) Where elevators installed in enclosed hoistways are provided with special car top treatments such as domed or shrouded canopies, the exit shall be made accessible, including the car top refuge space as specified in 2.14.1.6.2.

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(g) Immediately adjacent to the top emergency exit there shall be a space available for standing when the emergency exit cover is open. This space shall be permitted to include a portion of the refuge area (see 2.14.1.6.2). All exit covers shall be provided with a car top emergency exit electrical device (see 2.26.2.18) that will prevent operation of the elevator car if the exit cover is open more than 50 mm (2 in.), and the device shall be so designed that it

(1) is positively opened

(2) cannot be closed accidentally when the cover is removed

(3) must be manually reset from the top of the car and only after the cover is within 50 mm (2 in.) of the fully closed position

(4) shall be protected against mechanical damage”

(c) Modify section 2.14.1.6.2 to read as follows:

“An unobstructed horizontal area, within the car top railing if provided, of not less than 0.5 m² (5.4 ft²) shall be provided on top of the car enclosure for refuge space. It shall measure not less than 600 mm (24 in.) on any side. This area shall be permitted to include the space utilized for the top emergency exit [see 2.14.1.5.1(f)]. The minimum vertical distance in the refuge area between the top of the car enclosure and the overhead structure or other obstruction shall be not less than 1 100 mm (43 in.) when the car has reached its maximum upward movement.

In any area outside the refuge space where the vertical clearance between the top of the car enclosure and the overhead structure or other obstructions is less than specified in 3147.2214(a), the top of the car enclosure shall be clearly marked. The marking shall consist of alternating 100 mm (4 in.) diagonal red and white stripes. In addition, a sign with the words “DANGER LOW CLEARANCE” shall be prominently posted on the car top and be visible from the entrance. The sign shall conform to the requirements of ANSI Z535.4 or CAN/CSA-Z321 (see Part 9). The sign shall be made of durable material and shall be securely fastened.”

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(d) Modify section 2.14.1.7.1 to read as follows:

“A standard railing conforming to 2.10.2 shall be provided on the outside perimeter of the car enclosure top on all sides where the perpendicular distance between the edges of the car enclosure top and the adjacent hoistway enclosure exceeds 300 mm (12 in.) horizontal clearance and on sides where there is no hoistway enclosure. If clearances require (see 2.14.1.7.2) the standard railing to be located more than 50 mm (2 in.) from the edge of the outside perimeter of the car enclosure top, the top of the car enclosure outside of the railing shall be clearly marked. The marking shall consist of alternating 100 mm (4 in.) diagonal red and white stripes. Where conditions exist that do not permit locating the standard railing within 50mm (2 in.) of the perimeter of the car top, the standard railing shall be permitted to be inset only as necessary to establish the minimum railing clearances required by 2.14.1.7.2. The railing may be inset a maximum of 300mm (12 in.) and shall conform to the following requirements:

(a) A sign with letters not less than 52mm (2 in.) high on a contrasting background permanently attached to the standard railing and visible from the entrance side of the car top shall be provided. The sign shall conform to the requirements of ANSI Z535.4 or CAN/CSA-Z321 (see Part 9). The sign shall be made of durable material and shall be securely fastened. The sign shall state:

CAUTION
DO NOT STAND ON OR CLIMB OVER THIS RAILING

Note: see section 2.7.2.2 Maintenance path in machinery spaces and control spaces.

(b)The forces specified in 2.10.2.4 shall not deflect the railing beyond the perimeter of the car top. The top-of-car enclosure, or other surface specified by the elevator installer, shall be the working surface referred to in 2.10.2.”

(e) Modify section 2.14.1.7.2 to read as follows:

“The following minimum clearances from the standard railing to fixed electrical, mechanical or structural objects, and the counterweight, shall be furnished and maintained:

(a) 300mm (12 in.) horizontally, at any position in the hoistway, in the direction toward the hoistway walls.

Exception: Car rail brackets less than 457 mm (18 inches) in horizontal length.

(b) 300mm (12 in.) vertically at the extreme limit of travel.

(c) 600mm (24 in.) horizontally towards the centerline of the of the car top, at any position in the hoistway.”

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- (f) Modify section 2.14.3.2 to read as follows:
“Hinged or removable panels shall not be provided in car tops, except those required for emergency exit.”

§ 3147.2215 RESERVED

§ 3147.2216 RESERVED

§ 3147.2217 RESERVED

§ 3147.2218 SPEED GOVERNORS.

Speed governors shall comply with Section 2.18 except as modified herein:

- (a) Modify section 2.18.4.2.5(a) to read as follows:
“(a) A speed-reducing device conforming to 2.18.4.1.3 which effectively monitors the speed of the elevator in all conditions, and will reduce the speed of the elevator in case of overspeed, and that shall be set to open as specified in 2.18.4.2.1, 2.18.4.2.2, or 2.18.4.2.3.”
- (b) Modify section 2.18.9 to read as follows:
“A metal plate 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:
(a) the speed in m/s (ft/min) at which the governor is set and sealed to trip the governor-rope retarding means
(b) the size, material, and construction of the governor rope on which the governor-rope retarding means were designed to operate
(c) the governor pull-through tension (force) inN(lbf) (see 2.18.6.2)
(d) manufacturer’s name or trademark
(e) statement “DO NOT LUBRICATE GOVERNOR ROPE”
(f) The speed governor and safety marking plates shall contain the manufacturer's model number”

§ 3147.2219 RESERVED

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§ 3147.2220 SUSPENSION MEANS AND THEIR CONNECTIONS.

Suspension means and their connections shall comply with Section 2.20 except as modified herein:

- (a) Section 2.20.4.2 is not adopted.
- (b) All references to ASME 17.6 within section 2.20 of ASME A17.1-2013 shall be to ASME A17.6-2010 except part 2 (Aramid Fiber ropes are not permitted).
- (c) The section 2.20.8.3 reference to “means” shall be a device that utilizes a proven methodology to physically interact with and continuously monitor the actual residual strength of each load bearing suspension member at any time during its operational life cycle and shall be capable of measuring changes in residual strength that may occur due to unusual or unforeseen conditions. The monitoring device shall be properly installed and functional. If upon routine inspection by the Division, the monitoring device is found to be in a non-functional state or removed, the elevator shall be removed from service. If the device is removed to facilitate the replacement of the suspension-members, it shall be properly installed and functional before the elevator is returned to service.

§ 3147.2221 RESERVED

§ 3147.2222 BUFFERS AND BUMPERS.

Buffers and bumpers shall comply with Section 2.22 except as modified herein:

- (a) Section 2.22.4.8 is not adopted.
- (b) All equivalent type buffers shall be subject to approval by the Division.
- (c) Modify section 2.22.2 to read as follows:
“Solid bumpers, where permitted, shall be made of wood or other suitably resilient material of sufficient strength to withstand without failure the impact of the car with rated load, or the counterweight, descending at governor tripping speed. The material used shall be of a type that will resist deterioration or be so treated as to resist deterioration. All elastomeric bumpers shall be marked with the manufacturer’s recommended replacement criteria.”

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§ 3147.2223 CAR AND COUNTERWEIGHT GUIDE RAILS, GUIDE-RAIL SUPPORTS, AND FASTENINGS.

Car and counterweight guide rails, guide-rail supports, and fastenings shall comply with Section 2.23 except as modified herein:

- (a) Modify section 2.23.9.3 to read as follows:
“Slotted guide-rail brackets shall be secured in their final position by a bolt not less than 3/8 inch diameter or by welding in accordance with section 8.8. Such means shall have a factor of safety of not less than 5.”

§ 3147.2224 DRIVING MACHINES AND SHEAVES.

Driving machines and sheaves shall comply with Section 2.24 except as modified herein:

- (a) Section 2.24.2.3.2 is not adopted.

§ 3147.2225 RESERVED

§ 3147.2226 OPERATING DEVICES AND CONTROL EQUIPMENT.

Operating devices and control equipment shall comply with Section 2.26 except as modified herein:

- (a) Sections 2.26.1.4.2(g), 2.26.2.25, 2.26.2.31, 2.26.2.32, 2.26.2.35, 2.26.2.36, and 2.26.2.37 are not adopted.
- (b) Modify section 2.26.1.4.1(a) to read as follows:
“(a) Operating Devices
(1) Operating devices for inspection operation shall be provided on the top of the car.
(2) Operating devices for inspection operation shall also be permitted
(a) in the car
(b) in a machine room
(c) in a control room”

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(c) Modify section 2.26.1.4.4 to read as follows:

“Machine Room and Control Room Inspection Operations.

Where inspection operation in a machine room or control room is provided, it shall conform to 2.26.1.4.1 and the following:

(a) The transfer switch [see 2.26.1.4.1(b)] shall be

(1) located in the machine room or control room, as applicable

(2) rendered ineffective if top-of-car inspection operation, in-car inspection operation, or hoistway access operation is activated, or when a car door or hoistway door bypass switch is in the “BYPASS” position”

(d) Modify section 2.26.1.5 to read as follows:

“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 in a controller enclosure for the elevator located outside the hoistway in a control room or machine room.”

(e) Modify section 2.26.2.6 to read as follows:

“The switch or switches that shall be opened by a failure of a rope, tape, or chain, shall be provided when required by 2.25.2.3.2 or 2.25.4.1.8(b).”

§ 3147.2227 EMERGENCY OPERATION AND SIGNALING DEVICES

Emergency operation and signaling devices shall comply with Section 2.27 except as modified herein:

(a) Modify section 2.27.1.2 to read as follows:

“An audible signaling device shall be provided. The audible signaling device shall

(a) have a rated sound pressure rating of not less than 80 dBA nor greater than 90 dBA at 3 m (10 ft)

(b) respond without delay after the switch has been activated

(c) be located inside the building and audible inside the car and outside the hoistway

(d) for elevators with a rise greater than 30 m (100 ft), be duplicated as follows:

(1) one device shall be mounted on the car

(2) a second device shall be placed at the designated level”

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(b) Modify section 2.27.3 to read as follows:

“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 or elevators in jails and penal institutions where the recall of elevators will interfere with security.”

§ 3147.2228 RESERVED

§ 3147.2229 RESERVED

§ 3147.2230 RESERVED

Article 3147.2300 HYDRAULIC ELEVATORS

§ 3147.2301 RESERVED

§ 3147.2302 RESERVED

§ 3147.2303 RESERVED

§ 3147.2304 RESERVED

§ 3147.2305 RESERVED

§ 3147.2306 RESERVED

§ 3147.2307 MACHINERY SPACES, MACHINE ROOMS, CONTROL SPACES, AND CONTROL ROOMS.

Machinery spaces, machine rooms, control spaces, and control rooms shall comply with Section 3.7 except as modified herein:

(a) Sections 3.7.1.1 through 3.7.1.6, and 3.7.1.8 are not adopted.

§ 3147.2308 RESERVED

§ 3147.2309 RESERVED

§ 3147.2310 RESERVED

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§ 3147.2311 PROTECTION OF HOISTWAY LANDING OPENINGS.

Protection of hoistway landing openings shall comply with Section 3.11 except as modified herein:

- (a) Section 3.11.1 is not adopted.

§ 3147.2312 RESERVED

§ 3147.2313 RESERVED

§ 3147.2314 RESERVED

§ 3147.2315 RESERVED

§ 3147.2316 RESERVED

§ 3147.2317 RESERVED

§ 3147.2318 RESERVED

§ 3147.2319 VALVES, PRESSURE PIPING, AND FITTINGS.

Valves, pressure piping, and fittings shall comply with Section 3.19 except as modified herein:

- (a) Section 3.19.2.7 is not adopted.
- (b) Modify section 3.19.2.5 to read as follows:
“A pressure gauge fitting shall be provided on jack side of the check valve 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.”
- (c) Modify section 3.19.4.1 to read as follows:
“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.”

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(d) Modify section 3.19.4.4 to read as follows:

“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 shall be so marked to indicate the lowering position.”

§ 3147.2320 RESERVED

§ 3147.2321 RESERVED

§ 3147.2322 RESERVED

§ 3147.2323 RESERVED

§ 3147.2324 HYDRAULIC MACHINES AND TANKS.

Hydraulic machines and tanks shall comply with Section 3.24 except as modified herein:

(a) Modify section 3.24.3.1 to read as follows:

“Tanks shall be covered and suitably vented to the atmosphere.”

§ 3147.2325 TERMINAL STOPPING DEVICES.

Terminal stopping devices shall comply with Section 3.25 except as modified herein:

(a) Modify section 3.25.2.2 to read as follows:

“Terminal speed-reducing devices shall conform to 3.25.2.2.1 through 3.25.2.2.3.”

§ 3147.2326 RESERVED

§ 3147.2327 RESERVED

§ 3147.2328 RESERVED

§ 3147.2329 RESERVED

Article 3147.2400 ELEVATORS WITH OTHER TYPES OF DRIVING MACHINES

§ 3147.2401 RESERVED

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§ 3147.2402 SCREW-COLUMN ELEVATORS.

Screw-column elevators shall comply with Section 4.2 except as modified herein:

(a) Modify section 4.2.2.4 to read as follows:

“Refuge Space on Top-of-Car Enclosure. A refuge space shall be provided on top of the car enclosure conforming to 2.14.1.6.2.”

§ 3147.2403 RESERVED

Article 3147.2500 SPECIAL APPLICATION ELEVATORS

§ 3147.2501 RESERVED

§ 3147.2502 LIMITED-USE/LIMITED-APPLICATION ELEVATORS.

Limited-use/limited-application elevators shall comply with Section 5.2 except as modified herein:

- (a) Section 5.2.1.4.2.2 is not adopted.
- (b) Limited–use/limited application elevators may be installed to facilitate access according to Title 24, under the jurisdiction of the Division intended for the exclusive use of persons with disabilities only.
- (c) A sign shall be securely fastened in a conspicuous place at each landing and in the enclosure. The sign shall state “No Freight” in letters not less than 1/4 in. (6.4 mm) high and shall include the international symbol of accessibility.
- (d) Modify section 5.2.1.14(f) to read as follows:
“(f) Requirement 2.14.4.3 does not apply. Doors shall be of the horizontally sliding type. Material shall conform to 2.14.2.1.”
- (e) Modify section 5.2.1.3 to read as follows:
“The location and guarding of counterweights shall conform to 2.3.”
- (f) Modify section 5.3.1.7.2 to read as follows:
Clearance Between Hoistway Doors or Gates and Landing Sills and Car Doors and Gates. The clearance between the hoistway doors or gates and the hoistway edge of the landing sill shall not exceed 19 mm (3/4 in.). The distance between the hoistway face of the landing door or gate and the car door gate shall not exceed 76 mm (3 in.).

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§ 3147.2503 RESERVED

§ 3147.2504 RESERVED

§ 3147.2505 RESERVED

§ 3147.2506 RESERVED

§ 3147.2507 RESERVED

§ 3147.2508 RESERVED

§ 3147.2509 RESERVED

§ 3147.2510 ELEVATORS USED FOR CONSTRUCTION.

Elevators used for construction shall comply with Section 5.10 except as modified herein:

- (a) Section 5.10.1.9.5 (a) is not adopted.
- (b) A trained and authorized person shall be stationed at, and operate the controls in, the elevator car at all times while the elevator is accessible and available for use. Training shall include at least conveyance operation and emergency procedures such as entrapment, elevator fire, earthquake conditions, or other emergency procedures associated with conveyance operations.
- (c) There shall be an effective means of two-way voice communication between the operator and a second person at a different location on the jobsite available at all times while the elevator is staffed by an operator.
- (d) There shall be an effective means of two-way voice communication (wired or wireless) between the conveyance operator and all hall landings. A separate communication system shall be provided at each landing and be operable at all times while the elevator is in use, i.e., an annunciator next to the operator's station in the car, which can be activated from the landings.
- (e) An emergency plan and procedure to include items such as entrapment, elevator fire, earthquake conditions, or other emergency procedures associated with conveyance operations shall be developed and made available to the Division during any inspection.

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- (f) A durable sign with lettering not less than 1/2 inch on a contrasting background shall be conspicuously posted inside the elevator car indicating that:
- (1) The conveyance is for construction use only.
 - (2) The conveyance shall be operated only by an authorized person.
- (g) Durable signs with lettering not less than 1/2 inch on a contrasting background shall be conspicuously posted at all landings instructing the elevator user how to summon the conveyance.
- (h) The conveyance shall be parked and secured against unauthorized access after working hours.
- (i) Modify section 5.10.1.9.5(b) to read as follows:
“(b) The hoistway doors for all elevators used for construction shall be provided with an interlocks conforming to 2.12.2.”
- (j) Modify section 5.10.1.9.6 to read as follows:
“Temporary or permanent hoistway doors and gates shall be considered to be in the closed position when the door or gate is fully closed and latched. The hoistway doors and gates shall be provided with an interlock conforming to 2.12.2.”
- (k) Modify section 5.10.1.10.4(e) to read as follows:
“(e) Operation of the car with the top emergency exit open is permissible only when the load cannot be carried totally within the car enclosure and the operation is under the direct supervision of a certified competent conveyance mechanic. The car shall not be operated at a speed of more than 0.75 m/s (50 ft/min).”

§ 3147.2511 RESERVED

§ 3147.2512 RESERVED

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§ 3147.2600 ESCALATORS AND MOVING WALKS.

§ 3147.2601 ESCALATORS.

Escalators shall comply with Section 6.1 except as modified herein:

- (a) Section 6.1.6.9.3 is not adopted.
- (b) Modify section 6.1.6.9.2 to read as follows:
“Signs in addition to those required by 6.1.6.9.1 relating to cautions or warnings applying to escalator passengers, when provided, shall be in a readily visible location, and limited to conveying any additional cautions and/or warnings. The additional signs shall be prohibited in the area starting from 3 000 mm (118 in.) horizontally outward from the end of the newel and to the point where the steps start to move vertically. Its location shall not impede or otherwise cause persons about to board the escalator to suddenly pause or stop. Signs other than escalator caution or warning signs on the escalator are prohibited. The sign shall comply with ANSI Z535.4 or CAN/CSA-Z321, whichever is applicable (see Part 9).”

§ 3147.2602 MOVING WALKS.

Moving walks shall comply with Section 6.2 except as modified herein:

- (a) Section 6.2.6.8.3 is not adopted.
- (b) Modify section 6.2.6.8.2 to read as follows:
“Signs in addition to those required by 6.2.6.8.1 relating to cautions or warnings applying to escalator passengers, when provided, shall be in a readily visible location, and limited to conveying any additional cautions and/or warnings. The additional signs shall be prohibited in the area starting from 3 000 mm (118 in.) horizontally outward from the end of the newel and to the point where the steps start to move vertically. Its location shall not impede or otherwise cause persons about to board the escalator to suddenly pause or stop. Signs other than escalator caution or warning signs on the escalator are prohibited. The sign shall comply with ANSI Z535.4 or CAN/CSA-Z321, whichever is applicable (see Part 9).”

§ 3147.2700 DUMBWAITERS AND MATERIAL LIFTS.

§ 3147.2701 RESERVED

§ 3147.2702 RESERVED

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§ 3147.2703 RESERVED

§ 3147.2704 RESERVED

§ 3147.2705 RESERVED

§ 3147.2706 RESERVED

§ 3147.2707 RESERVED

§ 3147.2708 RESERVED

§ 3147.2709 RESERVED

§ 3147.2710 RESERVED

§ 3147.2711 RESERVED

§ 3147.2800 GENERAL REQUIREMENTS.

§ 3147.2801 SECURITY.

Security shall comply with Section 8.1 except as modified herein:

(a) Modify section 8.1.2 to read as follows:

“Group 1 covers access or operation of equipment restricted to elevator personnel.

NOTE: See the following:

(a) Requirement 2.2.4.4(e), pit access doors.

(b) Requirement 2.7.3.4.6, access openings in machinery space floor, etc.

(c) Requirement 2.7.3.4.7(c), hoistway access doors.

(d) Requirement 2.7.5.1.4, equipment access panels.

(e) Requirement 2.7.6.3.2(b), motor controller cabinet door(s) or panel(s).

(f) Requirement 2.7.6.4.3(b), access to the means to move the car from outside the hoistway.

(g) Requirement 2.7.6.4.3(d), access to removable means to move the car from outside the hoistway.

(h) Requirement 2.7.6.5.2(b), inspection and test panel enclosure.

(i) Requirement 3.19.4.4, access to a manual lowering valve.

(j) Requirement 3.19.4.5, access to pressure gauge fittings.

(k) Requirement 2.11.1.2(h), emergency access doors.

(l) Requirement 2.12.6.2.4, hoistway door unlocking device.

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- (m) Requirement 2.12.7.2.2, hoistway access switch.
- (n) Requirement 2.12.7.3.1, hoistway access enabling switch or its locked cover.
- (o) Requirement 2.26.1.4.3(b), in-car inspection operation transfer switch.
- (p) Requirement 2.26.2.21, in-car stop switch or its locked cover.
- (q) Requirement 4.2.5.2, screw machine controllers located away from hoistway, machine room, or machinery space.
- (r) Requirement 4.2.5.5, screw machine access panels.
- (s) Requirement 5.1.10.1(b), inclined elevator hoistway access switch.
- (t) Requirement 5.1.11.1.2(d), inclined elevator uphill end emergency exit.
- (u) Requirement 5.7.8.3, hoistway door unlocking device.
- (v) Requirement 7.1.12.4, power and hand dumbwaiters without automatic transfer devices hoistway access switch.
- (w) Requirement 7.9.2.15, electric material lifts with automatic transfer devices car-mounted operating devices.”

§ 3147.2802 RESERVED

§ 3147.2803 RESERVED

§ 3147.2804 ELEVATOR SEISMIC REQUIREMENTS.

Elevator seismic requirements shall comply with Section 8.4 except as modified herein:

(a) Modify section 8.4.3.2(e) to read as follows:

“(e) The following conditions shall apply to traveling cables:

- (1) Traveling cables where any portion of their loop below the mid-point of the elevator travel is located 915 mm (36 in.) or less horizontally from a snag point.
- (2) The traveling cables shall be attached or restrained near the half way point in the hoistway.”

(b) Modify section 8.4.4.1.1 to read as follows:

“The requirements specified in 2.14.1.5 shall apply except that the emergency exit shall be so arranged that it can be opened 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 and opened from the top of the car without the use of a key.

No other key to the building shall unlock the emergency exit lock except that where hoistway access switches conforming to 2.12.7 are provided, the key used to operate the access switches shall be permitted to also unlock the top emergency exit. This key shall be Group 1 Security (see 8.1).”

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- (c) Modify section 8.4.10.1.1(a) to read as follows:
“(a) All traction elevators having counterweights located in the same hoistway shall be provided with the following:
(1) For seismic zone 3 or greater, or $F_p > 0.25 W_p$ with z/h_p1 (for IBC/ASCE 7) or h_x/h_{np1} (for NBCC): a minimum of one seismic switch per building
(2) For all elevators covered by Section 8.4
(a) a counterweight displacement switch for each elevator
(b) an identified momentary group 1 security key switch (see 8.1) for each elevator, located in the control panel in the elevator machine room [see 8.4.10.1.3(i)]”
- (d) Modify section 8.4.10.1.2(c) to read as follows:
“(c) A displacement switch shall be activated by the derailment of the counterweight at any point in the hoistway to provide information to the control system that any portion of the counterweight assembly has left its guides.”
- (e) Modify section 8.4.10.1.3(i) to read as follows:
“(i) An elevator shall be permitted to be returned to normal service by means of the momentary reset switch [see 8.4.10.1.1(a)(2)], provided the displacement switch is not activated.”
- (f) The reference in section 8.4.11.12 to 3.17.2, shall be corrected to 3.17.1.

§ 3147.2805 ESCALATOR AND MOVING WALK SAFETY REQUIREMENT FOR SEISMIC RISK ZONE 2 OR GREATER.

Escalator and moving walk safety requirement for seismic risk zone 2 or greater shall comply with Section 8.5 except as modified herein:

- (a) Intermediate supports, if any, shall be free to move laterally in all directions

§ 3147.2806 MAINTENANCE, REPAIR, REPLACEMENT, AND TESTING.

Maintenance, repair, replacement, and testing shall comply with Section 8.6 except as modified herein:

- (a) Sections 8.6.3.2.2, 8.6.4.20.1(b), 8.6.4.20.4(b), 8.6.4.20.10(b), 8.6.7.11, 8.6.11.5.2 through 8.6.11.5.6, 8.6.11.9, and 8.6.11.10 are not adopted.

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- (b) Modify section 8.6.1.7.2 to read as follows:
“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.”
- (c) Modify section 8.6.4.19.12(b) to read as follows:
“If relative motion between the drive sheave and suspension means will result in material damage, it is permissible to relieve the tension between the two devices prior to demonstrating conformance with 8.6.4.19.12(a).”
- (d) Modify section 8.6.8.3.3(c) to read as follows:
“(c) ≤ 0.4 for escalators installed under Group II or ASME A17.1-2000/CSA B44-00 and earlier editions and a skirt deflector device is provided”
- (e) Modify section 8.6.11.1 to read as follows:
“All elevators provided with firefighters’ emergency operation shall be subjected monthly to a check of Phase I recall by use of the key switch, and a minimum of one-floor operation on Phase II. The check may be performed by authorized personnel that have been instructed in the operation of the equipment. Quarterly (every 3 Months) all elevators provided with firefighters emergency operation shall be subjected to an operational test of Phase I and Phase II. The test shall include as a minimum the testing of the door reopening devices, door operations, and the in-car audible and visual signaling devices. These tests shall be performed by a Certified Competent Conveyance Mechanic.
All results shall be recorded on a monthly log for each elevator. This log shall be utilized by all personnel performing the check or tests. If deficiencies are identified a Certified Qualified Conveyance Company shall be contacted immediately in order to make corrections. The date and time that the CQCC was notified of the deficiencies shall also be recorded on the log. The log and findings shall be readily available on site to elevator personnel and the authority having jurisdiction. If the log is not maintained in the conveyance machine or control room, its location shall be conspicuously posted in the machine or control room.”
- (f) Modify section 8.6.11.4.1 to read as follows:
“The cleaning of the exterior of transparent car enclosures or transparent hoistway enclosures from inside the hoistway shall be performed only by authorized personnel (see 1.3) under the direct supervision of a Certified Competent Conveyance Mechanic trained in compliance with the procedures specified in 8.6.11.4.2 and 8.6.11.4.3.”

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- (g) Modify section 8.6.11.5.1 to read as follows:
“The evacuation of passengers from stalled elevators shall be performed only by elevator and emergency personnel (see 1.3). NOTE : See ASME A17.4, *Guide for Emergency Personnel.*”
- (h) Modify section 8.6.11.6.1(a) to read as follows:
“(a) Escalators and moving walks shall be started only by authorized personnel (see 1.3) trained in compliance with the procedures specified in 8.6.11.6.2 through 8.6.11.6.4.”
- (i) Modify section 8.6.11.13 to read as follows:
“**Occupant Evacuation Operation.** All elevators provided with Occupant Evacuation Operation shall be subjected to annual test by a certified competent conveyance mechanic, to a check of the operation in conjunction with the fire alarm system testing in accordance with the requirements of NFPA 72. Deficiencies shall be corrected. A record of findings shall be available to elevator personnel and the authority having jurisdiction.”

§ 3147.2807 ALTERATIONS.

Alterations shall comply with Section 8.7 except as modified herein:

- (a) All altered or replaced components and systems shall meet the applicable requirements of section 8.4.
- (b) Modify 2013 section 8.7.2.27.7(a) to read as follows:
“(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 2 Security (see 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.”
- (c) Modify section 8.7.3.31.10(a) to read as follows:
“(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 2 Security (see 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 hydraulic machine.”

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- (d) Modify section 8.7.6.1.6 to read as follows:
“Handrails. Any alteration to the handrails or handrail system shall require conformance with 6.1.3.2.2, 6.1.3.4.1 through 6.1.3.4.4, 6.1.3.4.6, 6.1.6.3.12, and 6.1.6.4.
NOTE: The application of signage to handrails is considered an alteration and is prohibited.”
- (e) Modify section 8.7.6.1.11 to read as follows:
“(a) Any alteration that increases the rated load or rated speed or both shall result in the escalator’s conforming with 6.1.
(b) Any alteration that varies the speed of the escalator after start- up shall comply with 6.1.4.1.2.”
- (f) Modify section 8.7.6.2.6 to read as follows:
“Handrails. An alteration to the handrails or handrail system shall require conformance with 6.2.3.2.3, 6.2.3.4, 6.2.6.3.10, and 6.2.6.4.
NOTE: The application of signage to handrails is considered an alteration and is prohibited.”
- (g) Modify section 8.7.6.2.11 to read as follows:
“(a) Any alteration that increases the rated load or rated speed or both shall result in the escalator’s conforming with 6.2.
(b) Any alteration that varies the speed of the escalator after start- up shall comply with 6.2.4.1.2.”

§ 3147.2808 RESERVED

§ 3147.2809 RESERVED

§ 3147.2810 ACCEPTANCE INSPECTIONS AND TESTS.

Acceptance inspections and tests shall comply with Section 8.10 except as modified herein:

- (a) Sections 8.10 note (2), 8.10.5.14 and 8.10.5.15 are not adopted.

§ 3147.2811 PERIODIC INSPECTIONS AND WITNESSING OF TESTS.

Periodic inspections and witnessing of tests shall comply with Section 8.11 except as modified herein:

- (a) Sections 8.11.3.1.7, 8.11.5.14 and 8.11.5.15 are not adopted.

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§ 3147.2812 RESERVED

§ 3147.3000 Conveyances Covered by ASME A18.1-2011

Group V conveyances covered by ASME A18.1 shall comply with ASME A18.1-2011 which is hereby incorporated by reference except as modified herein:

§ 3147.3001 RESERVED

§ 3147.3002 RESERVED

§ 3147.3003 RESERVED

§ 3147.3200 VERTICAL PLATFORM LIFTS

Vertical platform lifts shall comply with Section 2 except as modified herein:

(a) General Requirements for vertical platform lifts

- (1) A separate means for disconnecting power to the lift shall be provided in the runway, accessible from the bottom runway landing, and used when accessing the pit or the underside of the platform.
- (2) When the bottom runway door is equipped with an electric strike lock, a battery backup shall be provided to electrically unlock the door for emergency evacuation in case of power failure.
- (3) Vertical platform (wheelchair) lifts shall have a manual lowering device. The lowering device is for use by others to lower the lift to the lower landing should the lift downward motion become impaired. The lowering device shall comply with the following:
 - (A) The device shall be secured against unauthorized use.
 - (B) The device shall be operable or accessible from outside the enclosure.
 - (C) When necessary to access the runway to operate the device, an opening in the runway with a lockable cover/panel shall be provided. The opening and cover/panel shall comply with the following:
 - (i) The opening shall be of sufficient size and located to allow safe access and reach to the lowering device; and
 - (ii) The cover/panel shall be kept locked and the key shall be available on the premises during normal business hours under the control of an authorized person.

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- (4) Vertical platform (wheelchair) lifts installed in accordance with section 2.1.1, 2.1.2 and 2.1.3, which require the wheelchair to be rotated 90 degrees for egress shall comply with the following:
- (A) The clear inside unobstructed platform dimensions may range from 42 inches to 48 inches on one side by 54 inches to 60 inches on the other side.
 - (B) Whenever the platform minimum width of 42 inches is increased, the platform maximum 60 inch length shall be decreased by the number of inches the width has been increased.
 - (C) When the length of the platform is reduced, the platform width shall be increased by the same amount the length has been decreased.
 - (D) The side entry of the platform door on the long side shall be hinged at the end nearest to the platform door on the short side unless the door is power operated

§ 3147.3201 RESERVED

§ 3147.3202 RESERVED

§ 3147.3203 RESERVED

§ 3147.3204 RESERVED

§ 3147.3205 RESERVED

§ 3147.3206 RESERVED

§ 3147.3207 RESERVED

§ 3147.3208 RESERVED

§ 3147.3209 RESERVED

§ 3147.3210 RESERVED

§ 3147.3211 RESERVED

§ 3147.3212 RESERVED

§ 3147.3213 RESERVED

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§ 3147.3300 INCLINED PLATFORM LIFTS

Inclined platform lifts shall comply with Section 3 except as modified herein:

(a) General Requirements for inclined platform lifts

- (1) Durable signs with lettering on a contrasting background shall be permanently and conspicuously posted at each landing indicating that passengers not in a wheelchair shall use the seat and seat belt, and passengers in a wheelchair shall secure the wheels of the wheelchair
- (2) Inclined platform (wheelchair) lifts installed on stairways where vision of any part of the stairway is obstructed shall be provided with an audio and visual warning device, located at the obstructed portion of the stairway, to alert persons using the stairway that the lift is in operation.
- (3) A fold-type platform, if provided, shall comply with the following:
 - (A) Capable of being power operated from all landings;
 - (B) Instructions on the operations of the lift shall be permanently and conspicuously posted near the operating controls;
 - (C) An inclined platform (wheelchair) lift will not operate by using the landing controls unless the lift is in the fold up position.
- (4) Intermediate stops, if provided, shall comply with the following:
 - (A) A level and clear floor area or landing at each floor or level served by special access lifts shall be provided.
 - (B) The level and clear floor areas or landings shall be part of the path of travel. Path of travel is a passage that may consist of walks and sidewalks, curb ramps and pedestrian ramps, lobbies and corridors, elevators, other improved areas, or a necessary combination thereof, that provides free and unobstructed access to and egress from a particular area or location for pedestrians and/or wheelchair users.
 - (C) Access and egress to the platform shall be permitted only in the loading and unloading areas.
 - (D) In new construction, the minimum size of landings shall be 60 inches by 60 inches. Other dimensions may be substituted where it can be demonstrated that a person using a wheelchair measuring 30 inches by 48 inches can enter and operate the lift safely.
- (5) Ninety degree turns when entering and exiting on inclined platform (wheelchair) lifts shall be allowed only at the lower landing when two adjacent retractable ramps on the platform are used.

§ 3147.3301 RESERVED

§ 3147.3302 RESERVED

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§ 3147.3303 RESERVED

§ 3147.3304 RESERVED

§ 3147.3305 RESERVED

§ 3147.3306 RESERVED

§ 3147.3307 RESERVED

§ 3147.3308 RESERVED

§ 3147.3309 RESERVED

§ 3147.3310 RESERVED

§ 3147.3311 RESERVED

§ 3147.3312 RESERVED

§ 3147.3313 RESERVED

§ 3147.3400 INCLINED STAIRWAY CHAIRLIFTS.

§ 3147.3401 RESERVED

§ 3147.3402 RESERVED

§ 3147.3403 RESERVED

§ 3147.3404 RESERVED

§ 3147.3405 RESERVED

§ 3147.3406 RESERVED

§ 3147.3407 RESERVED

§ 3147.3408 RESERVED

§ 3147.3409 RESERVED

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§ 3147.3410 RESERVED

§ 3147.3411 RESERVED

§ 3147.3500 PRIVATE RESIDENCE VERTICAL PLATFORM LIFTS

§ 3147.3600 PRIVATE RESIDENCE INCLINED PLATFORM LIFTS

§ 3147.3700 DRIVING MEANS

§ 3147.3701 RESERVED

§ 3147.3702 RESERVED

§ 3147.3703 RESERVED

§ 3147.3800 ENGINEERING TYPE TESTING AND DESIGN.

§ 3147.3801 RESERVED

§ 3147.3802 RESERVED

§ 3147.3803 RESERVED

§ 3147.3804 RESERVED

§ 3147.3805 RESERVED

§ 3147.3806 RESERVED

§ 3147.3807 RESERVED

§ 3147.3808 RESERVED

§ 3147.3809 RESERVED

§ 3147.3900 ROUTINE, PERIODIC, AND ACCEPTANCE INSPECTIONS AND TESTS.

§ 3147.3901 RESERVED

§ 3147.3902 RESERVED

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§ 3147.3903 RESERVED

§ 3147.3904 RESERVED

§ 3147.3905 RESERVED

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