



NEII® Summary of Key Group V Proposals

Grouping in related categories

Ranked by Priority

December 3, 2015

Document Key:

Issue

Code Section referenced in Group V draft proposal

- ASME A17.1-2013 requirement
- Current 2004 CA Title 24 Group IV position
- Proposal deviation from the A17.1-2013 requirement

DECREASE WORKER SAFETY

Prohibiting Alternative Testing

3147.2806(b)

- A17.1 §8.6.1.7.2 states that, for periodic testing, if any of the alternative test methods contained in 8.6.4.20 were performed, then the test tag must indicate alternative testing was utilized for the applicable requirement.
- Group IV does not have alternative test methods, which were added in A17.1 – 2013 edition.
- Proposal would delete provision for alternative test methods.

3147.2806(e)

- A17.1 §8.6.4.20.3 requires car oil buffers to be tested to determine conformance with the applicable requirements.
- Group IV adopted A17.1 without modifications.
- Proposal retains Group IV requirements and deletes no load car buffer testing

UNNECESSARY COSTS TO BUSINESSES

Ban Hydro MRLs

3147.2307

- A17.1 §3.7.1 provides requirements for hydraulic elevators that coincides with electric elevator requirements for driving machines and emergency brakes.
- Group IV has restrictions similar to those in the proposal.
- Proposal eliminates hydraulic machines in the hoistway and pit, access to machinery and control spaces inside the hoistway and pit, and the inspection and testing means panel.

3147.2319(a)-(d)

- A17.1 contains requirements for hydraulic machines located in the hoistway, as well as requirements for pressure gauge fittings, shutoff valves and manual lowering valves for hydraulic machines inside hoistway.
- Group IV has restrictions similar to those in the proposal.
- Proposal deletes these provisions, eliminating hydraulic machines and associated components inside the hoistway.

3147.2324

- A17.1 §3.24.3.1 contains requirements for covers and venting for tanks located in the hoistway.
- Group IV has restrictions similar to those in the proposal.
- Proposal eliminates the requirements for venting of tanks inside the hoistway.

Effectively eliminates all current Traction MRL designs

3147.2204(b)(a) & (b)(b)

- A17.1 §2.4.7.1(a) requires a 24” clearance above the car crosshead assembly and 6” min. above the sheave assembly, except as permitted in 2.4.7.1(b).
- Group IV requires 24” and did not recognize the special case exemption.
- Proposal excludes the exceptions permitted in 2.4.7.1(b)

3147.2207(a)

- A17.1 §2.7 permits access to machinery and control spaces inside hoistway from pit, car-top, a platform or inside car.
- Group IV is silent on working platforms and does not restrict working from inside the car.
- Proposal would eliminate access from a platform and from inside the car.

3147.2207(b)

- A17.1 §2.7.2 requires a safe and convenient access path in machinery spaces and control spaces.
- MRL equipment locations are not addressed in Group IV.
- Proposal would impose new, prescriptive requirements with specific measurements of where equipment can be located.

3147.2207(c) and (d) - also requires control / machine room

- A17.1 §2.7.3.1 permits equipment access from the pit, car-top, platform or inside the car. From these locations the access shall be a safe and convenient path.
- Accessing MRL equipment not addressed in Group IV.
- Proposal states that machinery spaces and control spaces inside the hoistway that cannot be accessed by an 18” minimum clear path as specified in 3147.2207(b), must be accessed from outside the hoistway through a machine room or control room.

3147.2207(e)

- A17.1 §2.7.3.3.2 permits access to some overhead machinery spaces by ladder, except those containing controllers and motor generators.
- Machinery space access not addressed in Group IV
- Proposal specifies that drive machines, in addition to controllers and motor generators, are not permitted to be accessed by ladders.

3147.2207(f) and (g)

- A17.1 §2.7.4.1 and 2.7.4.2 require elevator machine rooms, control rooms and control spaces that are not in a hoistway to have an 84” minimum head clearance and exempts when located in hoistway.
- MRL equipment locations are not addressed in Group IV.
- Proposal would require an 84” minimum head clearance when drive machine is inside hoistway.

3147.2207(h)

- A17.1 §2.7.5.1 permits maintenance or inspection of the elevator machine drive brake, emergency brake, elevator motion controller or motor controller can be carried out from inside the car or from the top of the car.
- MRL equipment location not addressed in Group IV.
- Proposal deletes the reference to maintenance or inspection from inside the car, and prohibits maintenance or inspection of motion controllers or motor controllers from car top.

3147.2207(i)

- A17.1 §2.7.5.1.1 requires a means to prevent vertical car movement where inspection or maintenance of the driving machine brake, emergency brake, motion controller or motor controller, done from inside the car or from the car top, can cause unexpected vertical car movement.
- Machines in hoistway are allowed but their maintenance is not addressed in Group IV.
- Proposal deletes reference to inspection or maintenance of elevator motion controllers or motor controllers from the car top, and all four components from inside the car.

3147.2207(j)

- A17.1 §2.7.5.1.3 permits use of car top emergency exit to egress and re-enter the car when the means to prevent vertical car movement is engaged.
- Means to prevent car movement not addressed in Group IV.
- Proposal deletes the car top emergency exit as an option to egress or re-enter the car and requires that the car-top shall be level with the landing and egress be provided through the hoistway landing door.

3147.2207(k) - also requires control / machine room

- A17.1 §2.7.6.3.2 permits a motor controller to be located outside of a machinery space, machine space, control space or control room, provided it is enclosed in a locked cabinet, with specific requirements for the cabinet.
- MRL equipment locations are not addressed in Group IV.
- Proposal prohibits separate cabinet for motor controller and requires motion and motor controls to be located in a control room or machine room. Additionally, the distance from the room's door must be no more than 25 ft (unobstructed path) to the elevator hoistway door or nearest hoistway door for a group of elevators.

3147.2207(l)

- A17.1 §2.7.6.3.4(a) allows when a governor is located inside a hoistway, it to be inspected or serviced from an adjacent car.
- Not addressed in Group IV.
- Proposal deletes using the adjacent-car option for testing the governor.

3147.2207(m) - also requires control / machine room

- A17.1 §2.7.6.4 requires that where an elevator driving-machine brake or an emergency brake or an elevator motion controller or motor controller is located in a 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/arranged so they can be operated from outside the hoistway.
- MRL equipment locations are not addressed in Group IV.
- Proposal deletes reference to an elevator motion controller or motor controller being located in the hoistway or pit.

3147.2207(n) - also requires control / machine room

- A17.1 §2.7.6.4.2 permits testing means to be located in an inspection and testing panel.
- Not addressed in Group IV.
- Proposal prohibits this option and requires the testing means to be located in a machine room or control room.

3147.2207(o)

- A17.1 §2.7.9.1 requires permanently installed lighting illumination at the standing surface of a working platform or car top.
- Working platforms are not addressed in Group IV.
- Proposal deletes reference for lighting to working platform and car top standing surface.

3147.2208

- A17.1 §2.8.3.3.2 does not address the location of shunt trip devices or elevators without Phase I Recall. Section 2.8.5.1 permits air conditioning equipment inside the hoistway.
- Not addressed in Group IV.
- Proposal prohibits air conditioning equipment inside the hoistway.

3147.2214(f)

- A17.1 §2.14.3.2 permits openings in car tops to be used for equipment access.
- Access to MRL equipment is not addressed in Group IV.
- Proposal deletes access panels, including panels on the car top, to access equipment.

3147.2226(a) and (b) - also requires control / machine room

- A17.1 §2.26.1.4 permits operating devices and control equipment to be located:
 - On the top of the car; at an inspection/test panel; in the car; in a machinery space outside the hoistway; in a machine room; in a control space outside the hoistway; in a control room; in the pit; and, at a working platform.
 - Permits a device to allow additional motion into overhead.
- MRL equipment locations are not addressed in Group IV.
- Proposals allow Inspection Operation only in control room, machine room or car top. Prohibits device to bypass Electrical Protective Devices (EPDs) to move into overhead.

3147.2226(c) and (d) - also requires control / machine room

- A17.1 §2.26.1.4.4 permits inspection operation from machinery and control spaces outside the hoistway, pits, landings, working platforms, machine rooms and control rooms. A17.1 §2.26.1.5 permits Car Door Bypass and Hoistway Door Bypass switches in a control room, a control space, the machine room, a machinery space, a motor controller or an inspection and test panel.
- MRL equipment locations are not addressed in Group IV.
- Proposal prohibits inspection operation from machinery and control spaces outside the hoistway, pits, landings and working platforms. Proposal also prohibits the referenced switches from being located in a machinery or control space, a motor controller or an inspection and test panel.

Results in larger cars/hoistways

3147.2202(c)

- A17.1 §2.2.4.2.2 permits ladder rungs, cleats or steps to be reduced from 16" width to the maximum space available but not less than 9" where obstructions are encountered.
- Group IV applies A17.1-2004 which permits reducing ladder width to 9".
- Proposal restricts any reduction of ladder width, requiring a full-width 16" ladder in all cases.

3147.2204(b)

- A17.1 §2.4.7.1 requires a 43” minimum vertical clearance between the car top and lowest part of the overhead structure when the car reaches its maximum upward movement. Areas outside the standard railing, where provided are not considered as safe occupied areas and are marked accordingly.
- Group IV only addresses car top railing for fall protection.
- Proposal deletes the exclusion for areas outside the standard railing in this measurement.

3147.2204(c)

- A17.1 §2.4.7.2 requires any 14” area within the railing, if provided, to be marked if the vertical clearance in that area is less than 43”.
- Group IV requires any area on the car top to be marked which lacks required vertical clearance.
- Proposal deletes the exception for marking outside of the railing and the reference to Appendix G which shows diagrams of the required car top clearances.

3147.2214(d)

- A17.1 §2.14.1.7.1 requires a standard railing on outside perimeter of car enclosure on all sides where perpendicular distance between the edges of the car enclosure top and the adjacent hoistway enclosure exceeds 12” horizontal clearance and on sides where there is no hoistway enclosure. Where the railing is required to be more than 4” 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.
- No railing set-back requirements are addressed in Group IV.
- Proposal reduces from 4” to 2” the outside perimeter clearance from the edge of the car enclosure top to the distance that requires the enclosure outside of the railing to be clearly marked.

3147.2214(e)

- A17.1 §2.14.1.7.2 specifies that when the car has reached its maximum upward movement, the following clearances must be provided from the top rail of the standard railing to building structure or equipment not attached to the car: 4” vertically; 4” horizontally in the direction towards hoistway enclosure; and 12” horizontally towards the centerline of the car enclosure top.
- Group IV adopted A17.1 2004 requirements.
- DOSH Group V proposal increase minimum clearances from the standard railing to the counterweight assembly and to fixed electrical, mechanical or structural objects not attached to the car that create a horizontal projection into the hoistway as follows:
 - 12” horizontally at any position in the hoistway in the direction of hoistway walls; may be reduced to 102mm (4in) for suspension means, governor rope(s) and governor rope(s) guards, selector tape(s), traveling cable(s), flexible metal conduit, and for:
 - Car rail brackets less than 18” in horizontal length; traveling cable hangers mounted on hoistway wall; horizontal mounting brackets and assemblies mounted to guard rails no longer than 6”; horizontal mounting brackets and assemblies mounted to guide rails longer than 6” and beveled on underside; Horizontal electric raceways attached to hoistway wall protruding less than 2” into hoistway; Vertical electrical raceways attached to hoistway wall; and, Hoistway recesses or projections that are beveled.
 - 12” vertically at the extreme limit of travel
 - 24” horizontally towards the centerline of the car top at any position in the hoistway.

3147.2214(c)

- A17.1 §2.14.1.6.2 requires all elevators to provide two unobstructed areas 14" x 14" and at least 24" apart.
- Group IV requires one unobstructed refuge space 5.4 ft² and shall not be less than 24" on any side.
- Proposal requires one unobstructed refuge space 5.4 ft² and shall not be less than 24" on any side.

Additional design requirements / restrictions

3147.2102(a)

- A17.1 §1.2 recognizes A17.7 compliance as equivalent to A17.1.
- Group IV does not reference A17.7, which was added in A17.1 – 2007 edition.
- Proposal would delete the reference and exclude ability to utilize A17.7.

3147.2201(a&b)

- A17.1 §2.1.6.2 specifies beams, slabs or other building construction making an angle less than 75 deg shall not project more than 4" inside hoistway.
- Group IV 3141.7(a)(4) specifies a 2" max. for A17.1-2004 2.1.6.2.
- Proposal modifies A17.1-2013 §2.1.6 to require clean surface and specifies a flush hoistway surface, but permits a 2" projection unless:
 - (a)(1) the top surface of the projection shall be beveled at an angle not less than 75 deg with the horizontal or
 - (a)(2) the top and bottom surface of the projection shall be beveled at an angle not less than 75 deg with the horizontal where the horizontal distance between a projection and the standard railing on a car enclosure top is less than 12".
 - (b) separator beams between adjacent elevators are not required to have bevels
 - (c) where recesses or setbacks exceeding 2" occur in the enclosure wall
 - (c)(1) the top of the recess or setback shall be beveled at an angle of not less than 75 deg with the horizontal or
 - (c)(2) the top and bottom surface of the recess shall be beveled at an angle not less than 75 deg with the horizontal where the horizontal distance between the hoistway wall and the standard railing on a car enclosure top is less than 12".

3147.2205

- A17.1 §2.5.1.5.3 specifies that the clearance between the loading side of the car platform and the hoistway enclosure is not limited provided: Car door interlock is provided to prevent a door from being opened unless the car is within the unlocking zone; and, Strength of the door complies with 2.11.11.2, 2.11.11.4, 2.11.11.6, 2.11.11.7 and 2.11.11.8.
- Group IV did not delete provision from A17.1-2004
- Proposal does not adopt A17.1 §2.5.1.5.3.

3147.2220(a) & (b)

- A17.1 §2.20.4.2 permits aramid fiber ropes as a suspension means and § 2.20.1 references all of ASME A17.6 for its suspension means requirements.
- Group IV did not include alternate suspension means.
- The proposal deletes the allowance for aramid fiber ropes and excepts Part 2 (aramid fiber rope) in its reference to ASME A17.6.

3147.2220(c)

- A17.1 §2.20.8.3 requires all electric traction elevators, excluding steel wire ropes, to be provided with a residual strength detection means.
- Alternate suspension means not addressed in Group IV.
- Proposal requires a residual strength detection device.
 - The proposal also requires “proven technology” that “effectively monitors” the physical properties and the “actual residual strength” of the suspension members.

3147.2222(a)

- A17.1 §2.22.4.8 states that when a car is level with terminal landings, car and counterweight oil buffers of the mechanical spring-return type shall be permitted to be compressed not to exceed 25% of their stroke when the car is level with the terminal landings (see 2.4.2.1).
- Group IV is similar to proposal.
- Proposal does not adopt 2.22.4.8.

3147.2222(b)

- A17.1 §2.22.1.1 states buffers of the spring, oil, or equivalent type shall be installed under the cars and counterweights of passenger and freight elevators subject to the requirements of 2.22.1.1.1 through 2.22.1.1.3.
- Group IV 3141.7 (a)(5) is same as proposal.
- The proposal states that all oil and equivalent type buffers as referenced by 2.22.1.1 shall be subject to approval by the Division.

3147.2222(c)

- A17.1 §2.22.2 states 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.
- Group IV adopted A17.1 without modifications.
- Proposal adds that all elastomeric bumpers be marked with manufacturer’s replacement criteria.

3147.2222(d)

- A17.1 §2.22.4.5 states that gas spring-return oil buffers shall be provided with a switch conforming to 2.26.2.22 that shall be actuated if the plunger is not within 13 mm (0.5 in.) of the fully extended position.
- Group IV adopted A17.1 without modifications.
- Proposal would add spring-return-type buffers to this requirement.

3147.2224

- A17.1 §2.24.2.3.2 addresses traction requirements for aramid fiber ropes.
- Alternate suspension means not addressed in Group IV.
- Proposal does not adopt 2.24.2.3.2.

3147.2203

- A17.1 §2.3.2.3 requires that where a counterweight (CWT) is located between elevators in a multiple-elevator hoistway, the CWT runway shall be guarded on the side next to the adjacent elevator.
- Group IV requirement is the same as proposal.
- Proposal requires the guarding to extend an additional 6” minimum beyond each CWT rail.

3147.2204(a)

- A17.1 §2.4.2.1 requires that where oil buffers are used the bottom runby shall be 6” min., except:
 - Where practical difficulties prevent a sufficient pit depth or where a top clearance cannot be provided to obtain the runby specified, it shall be permitted to be reduced.
 - Where spring return oil buffers are used, the runby is permitted to be eliminated.
- Group IV allows the same exception as A17.1-2013.
- Proposal does not permit exceptions allowed in current Group IV and A17.1.

Requires CCCMs to do work “authorized personnel” can do per A17.1

3147.2806(h)

- A17.1 §8.6.11.1 requires all elevators provided with firefighters’ emergency operation shall be subjected monthly to a check by authorized personnel.
- Group IV is similar to the proposal.
- Proposal states the check can be done by authorized personnel except on every third time it shall be performed by a Certified Competent Conveyance Mechanic.

3147.2806(j)

- A17.1§8.6.11.5.1 states that the evacuation of passengers from stalled elevators shall be performed only by authorized, elevator and emergency personnel (see 1.3) in compliance with the procedures specified in 8.6.11.5.2 through 8.6.11.5.6.
- Group IV adopted A17.1 without modifications.
- Proposal states the evacuation of passengers from stalled elevators shall be performed only by elevator and emergency personnel (see 1.3) and references ASME A17.4.

UNNECESSARY COSTS TO STATE OF CALIFORNIA

Proposals that may conflict with other codes

3147.2227(c)

- A17.1 §2.27.3.2(c) requires smoke detectors in an elevator hoistway when sprinklers are located in the hoistway.
- Group IV adopted A17.1 without modifications.
- Proposal unclear.

A17.7 not adopted

3147.2002(a)

- A17.1 §1.2 incorporates the ASME A17.7 Performance Based Code for Elevators and Escalators by reference.
- Group IV does not address.
- Proposal deletes the language to adopt this code by reference.

**Some proposals may fit into more than one category, but have been listed only once for purposes of this document.*