

NEII® Response to CA DOSH CHART and Proposed Code Change Rationale dated 1/15/15
Received from DOSH on 4/22/15, NEII® Comments Sent 6/8/15

NEII® reserves the right to submit additional comments or modify the comments contained in this document if new relevant information becomes available.

LEDGER for SHADING SCHEME

Gray shaded issues are areas of potential compromise to be discussed 6/9/15

Blue shaded issues are proposals that may have been modified to A17.1 text since this document was developed.

Orange shaded areas are proposals that have been withdrawn in subsequent revisions.

Version 1/15/15

Major Differences Between “ASME A17.1 – 2013” and Draft Revised Elevator Safety Orders (Group V)

	Topic	ASME A17.1 – 2013	Draft Revised Elevator Safety Orders (Group V)	DOSH Rationale	NEII COMMENTS 5/27/2015
1	Access to the governor for inspecting, servicing and testing.	Permissible to inspect, service and test the governor from the car top of an elevator in an adjacent hoistway. <i>Section 2.7.6.3.4(a)</i>	Prohibits the inspection, servicing and testing of the governor from the car top of an elevator in an adjacent hoistway <i>Section 3147.2207(l)</i>	Numerous fatalities have occurred when workers have attempted to work on elevator equipment in an adjacent hoistway.	What data is available to support this proposed change?
2	Lighting	Not specific with regard to the location of the light switch. Switch to be “inside the room....” <i>Section 2.7.9.1</i>	Light switch required on the lock-jamb side of the access door for machine rooms and control rooms. <i>Section 3147.2207(o)</i>	Long-standing ESO (currently enforced under Group IV). Workers can open the door and turn on the lights before entering a dark room full of electrical equipment.	Current applicability under Group IV is not adequate rationale. Consistent with other changes in the Group V proposal and must be considered along with the other provisions that require ROOMS versus allowing machine and control SPACES.

	Topic	ASME A17.1 – 2013	Draft Revised Elevator Safety Orders (Group V)	DOSH Rationale	NEII COMMENTS 5/27/2015
3	Removal of power to the elevator prior to the application of water by a fire sprinkler	No deletions to the ASME A17.1 rule. <i>Section 2.8.3.3.2</i>	Added the following: <ul style="list-style-type: none"> • The shunt-trip device may be incorporated into the design of the listed disconnecting means. • Removal of power shall not occur when an elevator cannot be recalled by Phase 1 operation prior to the application of water. <i>Section 3147.2208</i>	Added the provision for new technology that may incorporate the shunt-trip device into the disconnecting means located in the machine room or control room. Any elevator not capable of Phase I Firefighters' Operation should not allow the power to be removed from the elevator, as this will trap people in the elevator when there is a fire in the hoistway, machine room or control room.	Potential area of compromise. NEII meeting with DOSH 6/9/15 to discuss alternative language.
4	Machinery access panels in the elevator car top.	Allows machinery access panels in the elevator car top. <i>Section 2.14.3.2</i>	Prohibits machinery access panels in the elevator car top. <i>Section 3147.2214(f)</i>	Addressed in chart previously provided (see Item 9). Openings other than the entrance doors or emergency exit allow members of the riding public to stick their arms, head, or objects out of the elevator car. This can cause them to get injured by fixed objects in the hoistway or an adjacent elevator as it passes.	Potential area of compromise. NEII meeting with DOSH 6/9/15 to discuss alternative language.

	Topic	ASME A17.1 – 2013	Draft Revised Elevator Safety Orders (Group V)	DOSH Rationale	NEII COMMENTS 5/27/2015
5	Guarding of counterweights in a multiple-elevator hoistway.	No deletions to the ASME A17.1 rule. <i>Sections 2.3.2.3</i>	Added the following: “The guard shall extend at least 6 inches horizontally beyond each counterweight rail.” <i>Section 3147.2203</i>	Long-standing ESO (currently enforced under Group IV). This rule was written as a result of a fatality in California. The worker was attempting to do work in the adjacent hoistway and was struck by the counterweight. See Item 1 for a similar hazard scenario. Extending the guard 6 inches beyond the counterweight rails provides protection from counterweight guides that run on the rails.	Potential area of compromise. NEII meeting with DOSH 6/9/15 to discuss alternative language.
6	Reduction of runby for counterweighted elevators	Allows the reduction of runby for “practical difficulties” in building or elevator design. Also permitted for elevators with spring-return-type oil buffers. <i>Section 2.4.2.1(a) & (b)</i>	Section 2.4.2.1(a) and (b) were not adopted. <i>Section 3147.2204(a)</i>	No good reason for “practical difficulties” to exist in a newly designed elevator installation. Runby is a critical component of overhead clearances at the top of the hoistway. Eliminating the runby could lead to elevator shutdowns due to suspension stretch. Any shortening of the suspension will significantly increase the runby, which will lead to a reduction in the code required vertical clearances at the top of the hoistway.	What is the safety issue to be mitigated by this requirement? What data is available to support this proposed change? The runby can be reduced while maintaining safety. Errors can occur where the overhead may be less than it should be, so the runby can be reduced to solve a job site problem, without a variance being necessary.

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7	Clearance between loading side of car platforms and hoistway enclosures	The clearance is not limited if a car door interlock is provided. <i>Section 2.5.1.5.3</i>	2.5.1.5.3 is not adopted. <i>Section 3147.2205(a)</i>	Retains the 5 inch clearance for passenger elevators found in previous versions of ASME A17.1. There are numerous scenarios where the elevator may end up away from the door zone with its doors in the open position. Allowing unlimited clearance between the car sill and the hoistway wall simply because a car door interlock is in place creates an unnecessary opportunity for fall fatalities.	What is the safety issue to be mitigated by this requirement? What data is available to support this proposed change? The car cannot move beyond the leveling zone if the interlock is not locked. Once the car is away from the unlocking zone, the doors cannot be opened. Interlocks are type tested and certified devices.
8	Securing bolts or fasteners for machines and machinery.	Not required when sound isolation in compression is used to separate the machinery from the structure. <i>Section 2.9.3.1.2</i>	2.9.3.1.2 is not adopted. <i>Section 3147.2209(a)</i>	Securing bolts and fasteners are required in seismic regions (see 8.4.2.2). Not adopted to aid designers of elevators who may not be familiar with seismic design requirements.	Potential area of compromise. NEII meeting with DOSH 6/9/15 to discuss alternative language.
9	Guarding of equipment.	No significant deletions to the ASME A17.1 rule. <i>Section 2.10.1</i>	Added a more complete and descriptive set of guarding requirements. <i>Section 3147.2210(a,b,c,d)</i>	Long-standing ESO (currently enforced under Group IV) rules.	Potential area of compromise. NEII meeting with DOSH 6/9/15 to discuss alternative language.
10	Interlock design requirements	No deletions to the ASME A17.1 rule. <i>Section 2.12.2.4.2</i>	Added the following: “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.” <i>Section 3147.2212(b)</i>	Retained the strength criteria from ASME A17.1 – 2004 that was adopted without change into the Group IV ESOs. We agree with the earlier drafter’s of ASME A17.1. A strength criteria for an interlock is a critical component to a safe design.	DOSH indicated during our meeting in February that they planned to pull back these proposals and adopt A17.1 language without modification. NEII will verify revision at its meeting with DOSH on 6/9/15.

	Topic	ASME A17.1 – 2013	Draft Revised Elevator Safety Orders (Group V)	DOSH Rationale	NEII COMMENTS 5/27/2015
11	Hoistway door combination mechanical locks and electric contacts design requirements	No deletions to the ASME A17.1 rule. <i>Section 2.12.3.4.3</i>	Added the following: “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.” <i>Section 3147.2212(c)</i>	Same as Item 10 above.	DOSH indicated during our meeting in February that they planned to pull back these proposals and adopt A17.1 language without modification. NEII will verify revision at its meeting with DOSH on 6/9/15.
12	Hoistway access switches	Not required for elevators with a rated speed of 150 f.p.m. or less. No specific installation location requirements. <i>Section 2.12.7.1.1</i>	Required on all traction elevators regardless of speed. Provides installation location requirements. <i>Section 3147.2212(d)</i>	Access switch operation provides a safe means for workers to gain access to the hoistway (see Item 7 above). The use of hoistway door unlocking devices (2.12.6 which was also not adopted) or “picking” the lock do not provide equivalent safety. The installation location of the access switch is critical to its proper use.	Potential area of compromise. NEII meeting with DOSH 6/9/15 to discuss alternative language.
13	Speed-governor marking plate	No deletions to the ASME A17.1 rule. <i>Section 2.18.9</i>	Added the following: “(f) The speed governor and safety marking plates shall contain the manufacturer's model number.” <i>Section 3147.2218(b)</i>	Speed-governors are an “approved device” subject to review and approval by the Elevator Unit (see 3147.1000(c)). The manufacturer’s model number is part of the approval documentation. Including the manufacturer’s model number on the marking plate of the governor makes it easy to determine if the governor has been approved.	What is the safety issue to be mitigated by this requirement? What data is available to support this proposed change?

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14	Residual-strength detection means for suspension encased in a non-load bearing material.	One manufacturer has challenged DOSH’s understanding of this rule, the rule’s rationale, and the definitions of words used in the rule. <i>Section 2.20.8.3</i>	The proposed draft ESO rule is more descriptive of the actual requirements put forth by the drafters of ASME A17.1. <i>Section 3147.2220(c)</i>	The proposed draft ESO rule is designed to eliminate any industry confusion about this rule. It clearly defines DOSH’s expectations for a legitimate residual-strength detection means.	What is the safety issue to be mitigated by this requirement? What data is available to support this proposed change? As written, no device can meet the requirements. The only way to measure actual residual strength is through destructive testing.
15	Compressing car and counterweight buffers during normal operation	Spring-return type oil buffers are permitted to be compressed not to exceed 25% of their stroke when the car is level with the terminal landings. <i>Section 2.22.4.8</i>	2.22.4.8 is not adopted. <i>Section 3147.2222(a)</i>	Adopting this rule would also require the adoption of 2.4.2.1(a) and (b) which were not adopted (see Item 6).	What is the safety issue to be mitigated by this requirement? What data is available to support this proposed change?
16	Equivalent type buffers	No deletions to the ASME A17.1 rule. <i>Section 2.22.1.1</i>	Added the following: “All equivalent type buffers as referenced by subsection 2.22.1.1 shall be subject to approval by the Division.” <i>Section 3147.2222(b)</i>	Oil buffers are an “approved device” subject to review and approval by the Elevator Unit (see 3147.1000(c)). “Equivalent Type” is not defined. DOSH reserves the right to review and approve any new type of buffer to determine if the buffer is equivalent to oil and spring buffer requirements defined in ASME A17.1.	This requirement adds an unnecessary administrative burden for approval of the buffer. This could easily be solved by adoption of the A17.7/B44.7 PBC, where equivalent type buffers could be certified by AECOs. DOSH would not have to expend unnecessary resources to undertaken the equivalency determination AND would still retain its authority to reject an AECO certificate as deemed appropriate.

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17	Solid Bumpers	No deletions to the ASME A17.1 rule. <i>Section 2.22.2</i>	Added the following: “All elastomeric bumpers shall be marked with the manufacturer’s recommended replacement criteria.” <i>Section 3147.2222(c)</i>	The private residence elevator rules of ASME A17.1 – 2013 require a manufacturer’s retirement date for these types of buffers (see 5.3.1.14.1). It is DOSH’s understanding that this requirement will be made a part of future ASME A17.1 rules for traction and hydraulic elevators.	No comment at this time.
18	Switch for spring-return-type oil buffers	No deletions to the ASME A17.1 rule. <i>Section 2.22.4.5(c)</i>	Added the following: “spring-return-type and” <i>Section 3147.2222(d)</i>	Oil buffers are an “approved device” subject to review and approval by the Elevator Unit (see 3147.1000(c)). DOSH has a long-standing requirement for a switch on spring-return-type oil buffers. A damaged spring will not return the buffer to its fully extended position.	No comment at this time.
19	Slotted guide-rail brackets	Requires a “means” to prevent lateral movement of a slotted guide-rail bracket having a single bolt fastener. <i>Section 2.23.9.3</i>	All 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. <i>Section 3147.2223</i>	Defines the minimum requirements for the “means”. This has been a Long-standing ESO (currently enforced under Group IV) requirement.	Current applicability under Group IV is not adequate rationale. What is the safety issue to be mitigated by this requirement? What data is available to support this proposed change?
20	Emergency audible signaling device	Only required for elevators equipped with an emergency stop switch (which is not provided on passenger elevators). <i>Section 2.27.1.2</i>	Requires an emergency audible signaling device, in accordance with 2.27.1.2, for all elevators. <i>Section 3147.2227(a)</i>	Long-standing ESO (currently enforced under Group IV) requirement that enhances safety for those in need of a signaling device in new passenger elevators.	Potential area of compromise. NEII meeting with DOSH 6/9/15 to discuss alternative language.

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21	Phase I fire alarm initiating devices	Smoke detector required in the hoistway if sprinklers are present <i>Sections 2.27.3.2(c)</i>	Added the following: “excluding sprinklers located within 610mm (24in) of the pit floor.” <i>Section 3147.2227(c)</i>	To be consistent with NFPA 13	This proposal was deleted in recent revisions provided to NEII by DOSH.
22	Phase I emergency recall operation initiated by a fire alarm initiating device	Requires that <u>any elevator that serves that floor or level</u> where an elevator lobby FAID is actuated be recalled. <i>Sections 2.27.3.2.3(a), 2.27.3.2.4(a)</i>	Requires that <u>any elevator that serves that floor level</u> Added the following: “which share the same hoistway or lobby, machine room, control room , control space and any associated elevator of a group automatic operation” <i>Sections 3147.2227(d), 3147.2227(e)</i>	To add key missing text that is needed to convey the actual intent of the drafters of this ASME A17.1 rule.	Potential area of compromise. NEII meeting with DOSH 6/9/15 to discuss alternative language.
23	Category 5 (five-year testing) of oil buffers	<i>Section 8.6.4.20.3</i>	<i>Section 3147.2806(e)</i>	Addressed in chart previously provided (see Item 5). Tests conducted at less than full load and full speed do not subject the entire elevator to the actual worst case emergency conditions.	What is the safety issue to be mitigated by this requirement? What data is available to support this proposed change? This is unnecessary and costly testing without specific justification being provided.

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24	Special Provision for firefighters' emergency operation	Requires a monthly key recall by authorized personnel. <i>Section 8.6.11.1</i>	Requires 8 monthly <u>checks</u> by authorized personnel and 4 monthly <u>tests</u> by CCCMs. <i>Section 3147.2806(h)</i>	All of the issues have been well documented. This issue goes back to the 4.5 interim adoption Advisory Committee Meeting in December 2012.	What is the safety issue to be mitigated by this requirement? What data is available to support this proposed change? There may have been previous discussions, but this proposal is now part of a major rulemaking subject to very specific requirements under the CA Administrative Procedures Act.
25	Cleaning of a car and hoistway transparent enclosure	Allows authorized personnel to clean inside the hoistway. Personnel are to follow a written procedure. <i>Section 8.6.11.4.1</i>	Allows authorized personnel to clean inside the hoistway under the direct supervision of a Certified Competent Conveyance Mechanic. <i>Section 3147.2806(i)</i>	Long-standing ESO (currently enforced under Group IV).	Potential area of compromise. NEII meeting with DOSH 6/9/15 to discuss alternative language.
26	The evacuation of passengers from stalled elevators.	Allows authorized personnel, following a written procedure, to evacuate passengers from a stalled elevator in the hoistway. <i>Section 8.6.11.5.1</i>	Only elevator (CCCM) and emergency personnel are allowed The evacuation of passengers from stalled elevators <i>Section 3147.2806(j)</i>	Long-standing ESO (currently enforced under Group IV).	Current applicability under Group IV is not adequate rationale. What is the safety issue to be mitigated by this requirement? What data is available to support this proposed change?

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27	Special Provision for occupant evacuation operation.	Allows authorized personnel to conduct a check of the operation in conjunction with the fire alarm system. Does not specify the frequency of this check. <i>Section 8.6.11.13</i>	Requires a CCCM to conduct an annual test of the operation in conjunction with the fire alarm system. <i>Section 3147.2806(I)</i>	<p>Occupant Evacuation Operation is a highly complicated operation that utilizes the elevators to evacuate people from the floors of the building closest to the fire. This is a new operation that has no history of failure or success.</p> <p>The International Building Code allows for the removal of a stairwell in the building, if the building is served by occupant evacuation elevators.</p>	This proposal was deleted in recent revisions provided to NEII by DOSH.